

NEVADA LOCAL GOVERNMENT FINANCE STUDY  
FINAL REPORT

by

Glen W. Atkinson  
Thomas F. Cargill  
Warren H. Fox  
E. Malcolm Greenlees  
James L. Walker

Bureau of Business and Economic Research  
College of Business Administration  
University of Nevada, Reno

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## PREFACE

The 1977 Legislature, with the passage of Assembly Bill 547, established the Committee to Study Local Government Finances. The Committee commissioned this study which was conducted by the staff of the Bureau of Business and Economic Research of the College of Business Administration, University of Nevada, Reno. The study's purpose is to provide objective analysis of expenditure and revenue patterns; debt trends; fiscal management; and personnel and collective bargaining costs of Nevada's cities and counties. The analysis of information generated from fiscal and personnel data, field interviews with local governments, and public hearings provide the basis for the staff's policy recommendations. It is hoped that the study will provide useful information and insights to policy makers as they consider legislative and administrative policy changes affecting Nevada's cities and counties.

We would like to acknowledge the advice and direction provided by the Committee to Study Local Government Finances, which consist of Assemblyman Donald R. Mello (Chairman), Clark County Comptroller Darrel Daines, Senator Margie Foote, Senator Jim Gibson, Wells Vice Mayor Catherine Igoa, Sparks Mayor Jim Lillard, Assemblyman Paul May, and Las Vegas City Attorney Mike Sloan. Financial support for the study was also provided by an Intergovernmental Personnel Act Grant which was issued by the Governor's Intergovernmental Personnel Advisory Committee and the U.S. Civil Service Commission. Additional support and in-kind services were provided by the Bureau of Business and Economic Research of the College of Business Administration, University of Nevada, Reno. However, the views expressed here are those of the authors and not necessarily those of the sponsoring agencies. And, as is customary, final responsibility for errors and deficiencies remains with the authors.

We also wish to acknowledge the helpful assistance provided by the Legislative Counsel Bureau's William Bible and Ronald Sparks, who served as liasons between the Study Committee and the University research staff. Generous assistance and cooperation was additionally provided by numerous governmental agencies, especially the Local Government Division of the Department of Taxation; Local Governmental Advisory Committee to the Tax Commission; State of Nevada Retirement System; State Personnel Division; and the offices of the managers, finance officers, and personnel directors of city and county governments. The Nevada League of Cities and Nevada Association of County Commissioners provided essential cooperation and support for the study. We also appreciate those individuals who supplied useful testimony at the Committee's public hearings.

The study could not have been completed without the back-up support provided by the staff associated with the Bureau of Business and Economic Research. Student research assistants who worked on the project included John Boland, James and Anne Shaw, Robert Klein, James Hattori, Martin Lydick, Daisey Tien, and Gino Osborne. We are especially indebted to James Hattori for his diligence and resourcefulness in the development of a consistant fiscal data base. Able programming assistance was provided by Carlton Lamb and Sam Males. Albin Dahl prepared the informative paper on Federal estate taxes which appears in the appendix. Finally, cheerful and competent clerical assistance was provided by Mrs. Ella Kleiner, Mrs. Pat Loosbroock, Mrs. Mildred Peterson, and Ms. Brenda Cristani.

Glen W. Atkinson  
Thomas F. Cargill  
Warren H. Fox  
Malcolm E. Greenlees  
James L. Walker

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CHAPTER.....

AN ACT relating to local governments; establishing a committee to study the finances of local governments; making an appropriation; and providing other matters properly relating thereto.

WHEREAS, City and county governments in the State of Nevada are, in an increasing number of instances, unable to maintain adequate levels of water and sewerage service, street maintenance and police and fire protection; and

WHEREAS, In the past 4 years, expenditures for all of Nevada's cities and a cross-section of seven counties increased 54 percent, but revenues increased only 41 percent; and

WHEREAS, In the past 4 years, the combined fund balance at the end of the fiscal year for those cities and counties declined 71 percent; and

WHEREAS, There has been a steady increase in the assessed valuation of property in those cities and counties, but the rates of growth of assessed valuation have diminished; and

WHEREAS, These increasing expenditures, declining balances and diminishing rates of revenue growth indicate that Nevada's cities and counties are facing serious fiscal deterioration; now, therefore,

*The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:*

SECTION 1. There is hereby created a committee to study fiscal conditions of local governments in the State of Nevada. The committee shall be composed of eight members, four of whom shall be legislators and four of whom shall represent local general purpose government. The governor shall appoint the local general purpose government members of the committee. The majority leader of the senate shall appoint two senators and the speaker of the Assembly shall appoint two assemblymen. The chairman of the legislative commission shall designate one of the legislators as chairman.

SEC. 2. The committee shall study the fiscal conditions of local governments, including:

1. Fiscal management;
2. Short- and long-term revenue trends;
3. The utilization of existing sources of revenue;
4. The reallocation of selected functions from local governments to the state;
5. Alternative sources of future revenue;
6. Personnel and collective bargaining costs;
7. Short- and long-term expenditure trends; and
8. A review of the provisions for insuring against tort liability.

SEC. 3. The committee may hold public hearings at such times and places as it deems expedient and advisable to afford the general public and representatives of local government an opportunity to present recommendations and generally to be heard.

SEC. 4. The agencies of the executive branch of state government, the legislative counsel bureau and the University of Nevada System shall cooperate with the committee and shall furnish staff assistance to the committee, if it so requests, to aid the committee in the conduct of the study and the preparation of its report.

SEC. 5. 1. The committee may contract for professional, technical, clerical, stenographic and other services, purchase such supplies and materials and rent such facilities as it deems necessary or expedient to accomplish the purposes of this act, except that it shall utilize the services of the department of economics and the bureau of business and economic research at the University of Nevada, Reno, and the University of Nevada, Las Vegas, when appropriate.

2. The members of the committee are entitled to receive a salary of \$40 and the per diem allowance and travel expenses provided by law for each day's attendance at a meeting of the committee.

3. The aggregate of all expenses incurred for these purposes shall not exceed the amount of the appropriation made by this act.

SEC. 6. 1. The committee shall submit to the legislative commission a report of its findings and any recommended legislation before the commencement of the 60th session of the legislature.

2. In preparing recommended legislation, the committee shall enlist the assistance of the legislative counsel, as provided in NRS 218.240.

SEC. 7. There is hereby appropriated from the state general fund to the legislative commission the sum of \$50,000 for the period beginning July 1, 1977, and ending the 10th day of the 60th session of the legislature of the State of Nevada, to be used by the committee exclusively for the purposes of this act.

SEC. 8. Sections 2 to 6 of this act expire by limitation on April 1, 1979.



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## Chapter 1

### SUMMARY OF FINDINGS AND RECOMMENDATIONS

#### Fiscal Conditions

The purpose of this study was established by Assembly Bill 547 passed in the 1977 session of the Legislature. A review of that Act clearly shows that the concern of the Legislature was the fiscal health of cities and counties in Nevada. New York City and other major cities were facing a fiscal crisis. Were local governments in Nevada facing a similar crisis? If so, what type of relief is needed? In the process of completing this study, Proposition 13 was passed in California to constitutionally limit the property tax in particular, and other state and local taxes in general. A similar provision has recently passed the first stage in Nevada. Neither of these provisions was under serious discussion at the beginning of this study. However, we have tried to outline a program for dealing with tax limitations.

The scope of the study is limited to cities and counties, and excludes schools and special districts. The study was limited to the 1970-1977 period. Audited financial statements were used. The last year an audited statement was available was for fiscal year 1977. The data were adjusted for population changes and inflation.

We have not found that local governments are facing a fiscal crisis. But some trends were discovered that are a cause for concern. Tax revenues are declining sources of support for local governments because the local tax structure is not sufficiently responsive to population growth or inflation. The result is an increasing reliance on non-tax revenues, particularly Federal Government grants. The danger of this trend is the possible loss of local control of local spending priorities.

Expenditures have been reasonably stable in this period in real per capita terms. Also, there have been no major shifts in the importance of spending by function. A function that accounted for 10 percent of the expenditure in 1970 remained at roughly 10 percent in 1977. However, there are certain functions that could lead to future problems. An example is health programs in rural counties with a public hospital.

Generally speaking, debt levels are not excessive in relation to assessed values and the rate of growth has diminished since the 1950's and the Zubrow study.

The effects of population change on revenues and expenditures were analyzed with measures of "population elasticity" generated. Population elasticity measures the percentage change in revenue or expenditure in response to a one percentage point change in the level of population. Two major findings emerged from the elasticity study. First, locally generated revenues are not as responsive to population growth as is the response of expenditures to population growth in the urban areas of Nevada. The level of the gap between expenditure and locally generated revenues will likely grow over time. Second, a number of important revenue sources for local governments are particularly unresponsive to population growth. Property taxes and local gaming taxes are quite inelastic. On the other hand, the sales tax is very responsive to population growth.

A brief summary of the recommendations follow. A more complete discussion of the recommendations is included in the text.

#### Recommendations Regarding Revenues

1. Because of the existing limits on Nevada's property tax rate, we recommend a cautious and conservative approach to reform. A statutory change is preferred to a constitutional change.
2. Since much of the public concern with the property tax is due to sharp increases caused by infrequent assessments,

the state should require computer-assisted, annually adjusted assessments.

3. The state should relinquish its claim of 25 cents for the general fund and the 11 cent levy for the SAMI program to compensate for the effects on local governments of a rate reduction.
4. This Committee should recommend to the Legislature the classes of personal property to be exempted to comply with Question 4.
5. A more liberal property tax relief program for low income homeowners and renters is preferred to massive across-the-board tax reductions.
6. The Real Property Transfer Tax should be strengthened by better reporting methods. The rate could be increased to offset property tax reductions, and shared more completely with local governments.
7. To match the inflationary impacts of road construction and maintenance, the gas tax should be levied on value rather than volume.
8. Taxes on diesel fuel should be shared with local governments with heavy truck traffic on local streets.
9. Gaming taxes shared with local governments are not responsive to growth and inflation. The gaming tax distribution system should be simplified and based entirely on gross revenues.
10. The casino entertainment tax should be shared with the areas where the revenues are generated, where the impacts on government services are experienced.
11. Local gaming fees should be adjusted if there is a need for revenue.
12. Counties with two or more incorporated cities are in need of more "people taxes" such as sales taxes. These counties have problems associated with urban growth similar to their cities.
13. The distribution of cigarette and sales tax revenues should be adjusted annually rather than with each 10 year census.

14. There should be consideration of the inclusion of the sales tax on services to offset the revenue loss if groceries are excluded from the sales tax.
15. We were not able to examine in detail the structure of business licenses of local governments. However, we are convinced that local governments could raise more revenues if these fees were regularly reviewed.
16. Where the state mandates programs which have fiscal impacts on local governments, the state should assist in financing those programs. For example, the liquor tax could be used to support alcoholic rehabilitation programs at the local level.
17. An attractive alternative revenue source would be the implementation of the "pick-up" credit provision of the Federal Estate Tax. This provision would not cause additional burdens on Nevada taxpayers. A paper is attached in the Appendix to support the recommendation.
18. Non-tax revenue sources such as service charges should be emphasized by local governments, as they endeavor to make up for revenues lost through property tax limitation or reduction.
19. Enterprise fund revenues as well as miscellaneous charges and fees should be updated on a regular basis.
20. Inter-governmental grant revenues are an ever-increasing source of funds for local governments, and should be monitored and controlled wherever possible.
21. A new system of state transfers, utilizing a single formula block grant should be implemented to replace the present patch-work system of shared revenues.

#### Recommendations Regarding Expenditures

1. No major recommendations have been made for changes in overall expenditures. These expenditures have had very modest increases, and there has been no significant shift in the amounts of money spent in various expenditure categories.

2. Cities and counties should guard against the imposition of new spending requirements by other governments without adequate funding. Mandated program expenditures could disrupt these stable and controlled expenditure patterns.
3. The state should assume a larger role in the planning, coordination control, and operation of small county hospitals and rural health care.
4. Consolidation of city/county services in overlapping or contiguous areas should be considered whenever possible.

#### Recommendations Regarding Debt

1. Reductions of assessed valuations, when occurring as a part of a tax limitation measure, should be accompanied by appropriate relief provisions on bonded debt limitations.
2. A system of overlapping debt reports should be included in overall financial reports made to the Nevada Tax Commission.
3. A state-wide bond bank should be considered for local government debt financing.

#### General Recommendations

1. A system of uniform financial reporting should be implemented to facilitate monitoring of local government fiscal conditions.
2. The role of the Nevada Department of Taxation in local government affairs should be significantly changed in nature and expanded to provide more assistance in local government fiscal management.
3. A comprehensive study of all local government entities of all types should be made.

## Personnel and Collective Bargaining Costs

In addition to analysis of local government fiscal issues, Assembly Bill 547 also called for a study of personnel and collective bargaining costs. The rapid growth in recent years of collective bargaining in Nevada's local governments has stimulated considerable concern over its consequences. Chapters Seven, Eight, and Nine of this report contain findings and recommendations regarding wages, fringe benefits, personnel practices, and collective bargaining. They are summarized below:

1. Since the passage of the Local Government Employee-Management Relations Act in 1969, collective bargaining activity in Nevada has grown dramatically. Within several years, most employee associations and the cities and counties had signed their first contracts. By 1975, 43 percent of full-time city and county government employees belonged to an employee association. Collective bargaining amongst the cities and counties has been largely confined to the Las Vegas and Reno metropolitan areas, but recently has begun to appear in rural areas. Relative to other states, Nevada ranks high in terms of the percentage of state and local governments that engage in collective bargaining.
2. Wage levels and wage increases amongst Nevada's local governments have been quite comparable to the private sector. The available evidence indicates that while local government wages rose a dramatic 156 percent over the 1960-1977 period, inflation caused real wages to increase only 25 percent. Compared to the U.S. private business wages, Nevada local government wages gained on the average over the 1960-1973 period, but since 1973 they have fallen. Wage data by occupation also indicated a fall of local government wages relative to

U.S. and Nevada private business wages over the 1973-1977 period. The level of Nevada local government wages in 1977 appeared to be comparable to those of the Nevada private sector and other governments in the west.

3. Information on the costs of fringe benefits in Nevada's local governments over time is essential for a comprehensive analysis of total personnel costs. These data had to be specially collected for this study. In the future, survey data on the costs of wages and fringe benefits in local governments and the private sector should be consistently generated and made available annually.
4. Nevada local government fringe benefits have grown from an estimated 25 percent of wages in 1969-1970 to 35 percent in 1977-1978. This growth is consistent with national trends in growth of fringe benefits. Total compensation, which includes average base wages and fringe benefits, almost doubled over the 1969-1978 period. However, inflation resulted in average consumer prices increasing by 65 percent over the same period. Compared to the U.S. Consumer Price Index, average total monthly compensation increased over the 1969-1973 period, but declined thereafter. A similar pattern of a 1973 peak and subsequent decline was observed for local governments relative to U.S. private sector average compensation.
5. Analysis of the causal factors associated with rising local government wages and fringe benefits revealed that inflation, local labor market conditions, and a national trend towards higher fringe benefits were primarily responsible. Even though the 1969-1977 period has been one of considerable collective bargaining activity in Nevada's local governments, the evidence indicates that the collective bargaining process has not significantly impacted on increases in wages, fringe

- benefits, or average total compensation. Though total personnel costs to local governments have increased, benefits and average total compensation appear to be reasonably competitive with the private sector.
6. Administrative costs accruing to local governments in reaching an agreement are substantial, but do not appear to be excessive. These are basically necessary costs if local governments are to participate in the bargaining process.
  7. While personnel practices have been affected by collective bargaining, the impacts have not been critical. Nevada's collective bargaining legislation now delineates management's rights in regard to staffing levels and work performance standards. No major changes in the law appear to be warranted at this time. However, the potential for significant future impacts exist. With a loose interpretation of safety in NRS 288, the impact of collective bargaining on work rules and procedures could significantly affect costs. Safety issues should be confined to working conditions directly affecting employee safety only.
  8. The simultaneous resolution of local government collective bargaining and budgets results in needless conflict. In determining wages, the competitive wage rate, by occupation, is the most important consideration, and salary surveys could determine this prior to the finalization of the budget. Collective bargaining should be completed prior to the budget cycle.
  9. A review of collective bargaining legislation enacted by Western states reveals no consistency in coverage or bargaining processes. Nevada should possess collective bargaining provisions to meet local needs, and the local Government Employee-Management Relations Act provides that.
  10. Due to the general acceptance and stability of the bargaining process and the reasonableness of the bargaining settlements in Nevada, no major changes in present legislation are recommended.



## Chapter 2

## FISCAL DATA SOURCES AND CATEGORIES

Introduction

The expenditures and revenue data for local governmental entities in the State of Nevada are based on the reports of independent auditors, which are prepared annually for each local governmental entity, and filed with the Local Government Division of the Nevada Tax Commission. The audit reports were obtained for all counties and cities (Table 2-1) for the 1970 and 1977 fiscal years, and from 1970 through 1977 for ten governmental entities selected for case studies (Table 2-2).

TABLE 2-1

Governmental Entities Represented by Cross-Section Data  
for 1970 and 1977

County Governments	City Governments
1. Carson City	1. Fallon
2. Churchill	2. Boulder City
3. Clark	3. Henderson
4. Douglas	4. Las Vegas
5. Elko	5. North Las Vegas
6. Esmeralda	6. Carlin
7. Eureka	7. Elko
8. Humboldt	8. Wells
9. Lander	9. Winnemucca
10. Lincoln	10. Caliente
11. Lyon	11. Yerington
12. Mineral	12. Gabbs
13. Nye	13. Lovelock
14. Pershing	14. Reno
15. Storey	15. Sparks
16. Washoe	16. Ely
17. White Pine	

TABLE 2-2

Governmental Entities Represented by Time-Series  
Data Over the Period from 1970 through 1977

1. Churchill County
  2. Fallon
  3. Clark County
  4. Las Vegas
  5. North Las Vegas
  6. Washoe County
  7. Reno
  8. Sparks
  9. White Pine County
  10. Ely
- 

The audit reports provide detailed information on expenditures and revenues in terms of fund accounting categories; however, for purposes of economic analysis, the information had to be transformed into functional categories of expenditures and revenues. These functional categories provide the data base used in this study and yielded meaningful insights into the fiscal condition of local governmental entities in the State of Nevada. The data have been developed into two forms: cross-section and time-series data.

The cross-section data represent expenditure and revenue components for each governmental entity at a point in time. We have the data for both 1970 and 1977. Table 2-1 presents the counties and cities for which detailed expenditure and revenue data have been developed. The cross-section data provides information on the fiscal condition of local governmental entities by comparing expenditures and revenues across county or city governments at a point in time.

Several county and city governments were selected for special case studies. A consistent set of time-series data

was developed for each of the case study governmental entities. Time-series data provides information on the expenditure and revenue components for a given governmental entity on an annual basis. The time-series data for each case study area cover the period from 1970 through 1977. Table 2-2 presents the case study governmental entities.

#### Adjustment for Inflation and Population

The expenditure and revenue data are reported in "nominal" or current dollar values. Nominal values are satisfactory for some purposes; however, other types of analysis require that the data be adjusted for changes in prices over time and variation in population.

The influence of price variation over time can be eliminated by transforming the nominal expenditures and revenues to "real" expenditures and revenues by an appropriate price index. The Municipal Government GNP Deflator is the most representative price index to use from the point of view of local governments in Nevada. The municipal price index (base = 1972) represents the prices of goods and services purchased by local governmental entities throughout the United States and is prepared by the U.S. Department of Commerce. The expenditure and revenue data are reported on a fiscal year basis while the price index is reported on a calendar year basis. To obtain a reasonable matching of time coverage, the fiscal data is adjusted with the previous calendar year price index. That is, expenditures for fiscal 1970 (covering the period from July 1969 through July 1970) are deflated by the 1969 price index (covering the period from January 1969 through December 1969).

Expenditure and revenue data are also adjusted for population differences among governmental entities at a point in time and population changes over time for a given entity. Per capita expenditures and revenues are calculated using the county population estimates prepared by the Bureau of Business and Economic Research, University of Nevada Reno.

Again, the fiscal data are adjusted with the previous calendar year population estimate.

### Data Categories

The financial data are divided into three broad categories: Revenues, Expenditures, and Debt. The first two categories are the traditional ones utilized in governmental financial statements. The third category was used to examine the impact of bonds and other forms of indebtedness which contributed to the financial crisis of New York City.

The traditional fund-by-fund format of governmental financial reporting was altered slightly and the detailed revenue, expenditure and debt categories were combined for all funds in a local government entity.

### Revenues

The principal revenue categories which were used for classification purposes are shown in Table 2-3. These are further partitioned into tax and non-tax revenues. The tax revenue category includes traditional taxes based on value, as well as items such as license fees where the cost is either fixed or variable within a range. These licenses are in effect taxes levied, but only on a different basis. Service charges or fees for service are not considered taxes, and are included in the non-tax category. A brief explanation of each category is outlined below (see Glossory.)

Property Tax - Includes all real and personal property taxes including penalties and interest, as well as net proceeds of mines tax. Property taxes for all funds are included. Special assessment revenues are included as charges for services.

Gaming Taxes - Includes local gaming taxes levied by the county or city. In addition, the portion of

TABLE 2-3

REVENUE CATEGORIESTAX REVENUE

Property Tax - Real and Personal  
                  - Penalties  
Gaming Taxes - Local  
                  - State Distributed  
  
Liquor Tax  
Gas Tax  
Cigarette Tax  
Sales Tax  
Other           - Business Licenses  
                  - Animal License Fees  
                  - Building Permits  
                  - Marriage Licenses  
                  - Motor Vehicle Fees  
                  - Room Tax  
                  - Miscellaneous Taxes

## TOTAL TAX REVENUE

NON-TAX REVENUE

Enterprise Fund Revenues  
Miscellaneous - Charges for Services  
                  - Fines and Forfeitures  
                  - Public Safety Charges  
                  - Culture and REcreation Charges  
                  - Franchise Fees  
                  - Sales or Rentals  
                  - Other

## TOTAL OTHER REVENUE

## Intergovernmental Revenues

Federal Grants  
State Grants  
Local and Other Grants  
Total Grant Revenue

## Capital Revenues

Proceeds from Bonds and Loans  
Interest Earned

## TOTAL REVENUE

state gaming taxes distributed to counties is reported in this category.

Liquor Tax - Includes all taxes on wines, spirits and alcoholic beverages. The portion returned to local governments by the state is included in this category.

Gas Tax - Includes all motor vehicle fuel used in automobiles, boats and airplanes. The amount includes the local share of gas tax distributed to county.

Cigarette Tax - Includes the tax collected by the state and distributed to local governments.

Sales Tax - is the city-county relief tax. This is the city and county share of the sales tax. It also includes the use tax component. It arises on retail sales within the local government unit and is distributed within the county on a population basis.

Other Taxes - This category combines six minor categories. They are: business licenses, animal license fees, building permits, marriage licenses, motor vehicle fees and room tax. Room taxes are included for those counties where the tax is part of general county revenues. In Washoe and Clark Counties, the room tax is paid to the convention authorities and is outside of the direct county revenue structure. The motor vehicle fee is the city-county share of state fees. The motor vehicle privilege tax is included in the personal property segment of property tax.

Enterprise Fund Revenues - Includes revenues from governmental activities operating in a quasi-business capacity. Revenues in this category include utility fees and airport landing fees.

Other Miscellaneous Revenue - Includes a combination of seven minor categories. These include

charges for services, public safety charges, fines and forfeitures levied by local courts, admission fees to parks, recreational and cultural activities. Also included are franchise fees charged for items such as garbage collection, cable TV or utilities. Finally, revenues from the sales of property are included in this category.

Federal Grants - Includes monies received by the local government unit from the Federal government. This category includes federal funds that have been identified as Federal funds but may have been channeled to a local government through a state agency.

State Grants - Includes amounts received by the local government from the state government. Where a portion of the state grant has been co-mingled with Federal funds, the entire amount is categorized as a state grant.

Local Grants - This category has been treated as zero since most local grants are in reality inter-fund transfers. In a few isolated instances where grants were received, the amounts were not significant.

Capital Revenues - This category includes revenue from the sale of bonds as well as interest earnings of the local government unit.

#### Expenditures

The primary criteria for categorization of local government expenditures was the purpose for which the expenditure was made. In the judgment of the research staff, this represented the best way to understand governmental spending behavior and to later analyze this behavior and develop policy recommendations.

This approach is consistent with the growing practice of budgeting for programs and the financial reporting by broad areas of administrative responsibilities in cities and counties of Nevada.

In most governmental financial reports, there is the division of all costs into those for personnel, operating, and capital. This division was not made in the present study. The parallel investigation of the impact of collective bargaining on local governments was felt to be the best way to identify the increases in the principal cost component - labor.

The main expenditure categories and the explanation of the items included in each category are shown in Table 2-4.

The lack of greater specificity of the expenditure categories could be based on several factors. The most important is the absence of a standardized chart of accounts for municipalities in Nevada.

General Administration - Includes all costs of general governmental administration. The components of cost in this category can be subject to some considerable change from year to year and between entities. The expenditures typically include city or county council costs, accounting and financial management, city or county manager, personnel services, and many other diverse administrative services. A second important sub-category is the judicial costs of the local government, which also include county probation costs.

Highways and Roads - This category is more appropriately described as capital works. The largest single category of expenditure has historically been highways and roads. Cost details include the cost of administering and engineering the capital projects, as well as the direct contract expenditures for the project.

Public Health - Include expenditures for the health department operations as well as the cost to the local government of local hospital operation. Since most hospitals are separate entities, profits



TABLE 2-4

EXPENDITURE CATEGORIES

## GENERAL ADMINISTRATION

- Administration
- Judicial (Including Probation)
- Other Administration

## HIGHWAYS, ROADS AND PUBLIC WORKS

- Administration
- Engineering
- Direct Expenditures - Capital

## PUBLIC HEALTH AND SOCIAL SERVICES

- Public Health
  - Health Department
  - Hospitals
- Social Services and Welfare

## PARKS AND RECREATION

## PUBLIC SAFETY AND SANITATION

- Police
- Other Public Services
  - Fire
  - Detention and Corrections
  - Protective Inspection
  - Sanitation and Waste
  - Other

## OTHER DIRECT EXPENDITURES

- Enterprise Fund Expenditures
- Other Expenditures
  - Debt Service

## GRANTS TO OTHER GOVERNMENT UNITS

- Grants to Federal
- Grants to State
- Grants to Local

## TOTAL EXPENDITURES

of the hospitals are not included in this area to offset other health costs. This category includes expenditures for the medically indigent and other health-related costs.

Social Services - Includes all expenditures made at the local levels of government for welfare, indigent costs and general assistance. This category includes direct payments, and the cost of staff personnel to administer the program.

Parks and Recreation - Includes costs of salaries, services, and supplies necessary to operate the parks and recreation programs of the local government entity. This category also includes capital expenditures for parks and recreation facilities.

Police - Includes costs of police protection only. The category includes all salaries, supplies and capital outlays necessary for this function.

Other Public Safety - Includes fire protection costs, detention, jails and corrections, protective inspection such as building inspection, and sanitation and waste. This category would not include sewer costs, for example, if a local government chose to operate its sewer system as an enterprise fund.

Enterprise Activity - As outlined in the revenue area, this category includes the operations of governmental enterprises. The total costs of operation are included as expenditures in this category.

Other Expenditures - Includes the expenditures for debt service and other miscellaneous expenditures. The debt service category includes redemption of bonds as well as the payment of interest on various forms of indebtedness.

Federal State and Local Transfers - These three categories include transfers of local government funds to other levels of government. In the local

category, transfers were primarily in the form of inter-fund transfers, which were eliminated resulting in no transfers in this category.

### Debt

The third and final set of categories for data analysis were those designed to measure the amount of indebtedness of the various entities.

The categories chosen reflect all forms of municipal indebtedness, including both general obligation and revenue bonds, as well as short-term borrowing of the counties and cities. Also reported were leases and lease-purchase agreements which have a financial impact similar to debt financing. The debt categories are shown below:

TABLE 2-5

### DEBT CATEGORIES

#### BONDED DEBT

General Obligation Bonds  
Revenue Bonds  
Other Bonds

#### TOTAL

#### AMOUNT OF BONDS MATURING IN ONE YEAR

#### EMERGENCY OR SHORT TERM LOANS

#### AMOUNT OF SHORT TERM LOANS MATURING IN ONE YEAR

#### LEASE COMMITMENTS

(included in short-term loans)

#### OTHER MEASURES

Assessed Valuation  
Amount of Delinquent Taxes

The total debt was also augmented by estimates of annual cash flow requirements of the bonds including both capital redemption and interest payments. This was done in order to test for any possible liquidity problems which may be developing. Finally, measures of

aggregate assessment in the entity were developed in order to determine the approximate debt burden related to overall assessment in the entity.

No analysis was made of the amount of overlapping debt that a particular property might be subject to. This was due to the inherent limitations of the scope of the study which did not cover school districts or special districts which can have a substantial impact on the total bond amounts outstanding.

General Obligation Bonds - Includes all amounts of the bonds which are general obligations of the local government. These bonds are those which are secured by the property tax and other general revenue sources of the issuing body.

Revenue Bonds - Includes bonds which are to be repaid from specifically defined revenues, such as airport or water utility operations. Revenue bonds do not have a direct call on local government tax revenues.

Other Bonds - This category includes those bonds whose form is not clearly defined as falling into one of the previous categories. Examples of these bonds would be double-barrelled bonds including both revenue and general obligation forms.

Amount of Bonds Maturing in One Year - Includes the estimated amount of all types of bonds maturing within one year. This amount includes both bond redemption and interest payments.

Short-Term Loans - Includes the amount of all short-term indebtedness of the local government. These amounts include the loans previously described as emergency loans. This category also includes the amount of any significant lease commitments.

Amount of Short-Term Loans Maturing in One Year - Includes all payments on short-term loans which

will be made in the next year, and includes both interest and principal payments as well as the next year's lease payments.

Assessed Valuation - Includes the aggregate amount of all types of assessed valuation for the local government. The figures were derived from the local government Red Book of the Nevada Tax Commission.

Delinquent Taxes - Indicates the amount of delinquent taxes reported by the local government. In instances where the audit report did not include this information, a zero amount was reported.



## Chapter 3

AN OVERVIEW OF NEVADA'S LOCAL GOVERNMENT  
REVENUE STRUCTURE

One of the most noticeable trends discovered in this study is the declining reliance of cities and counties on their own tax sources for revenue. In 1970, the median county received 82.94 percent of its total revenue from taxes, and only 63.47 percent in 1977. However, in 1970 the median county received 1.48 percent of its total revenue from grants, compared to 13.95 percent in 1977. The decline in tax dependence was less significant for cities, as well as the increasing contribution of grants to total revenues. The median city declined from 57.40 percent reliance on tax revenues in 1970 to 50.33 percent in 1977. The median city's grant revenue increased from 0.00 percent of total revenue in 1970 to 8.67 percent in 1977.

The different revenue status of counties and cities results primarily from the state mandated tax structure for local governments. Cities have benefited most from the sales tax which is the most elastic tax with respect to population. Three of the major counties (Clark, Elko and Washoe) receive no sales tax revenue because there are two or more incorporated cities within each of these counties. They also receive none of the cigarette or liquor tax revenues. Cigarette taxes have proven to be quite unresponsive to population growth. This is in part due to the tax base, and compounded by the spread of cigarette sales on Indian lands. The median county recorded an annual decrease in real, per capita liquor tax revenues of 0.93 percent and an annual decrease of 8.54 percent in cigarette tax revenues. The median city had an annual increase of 9.31 percent in liquor tax revenues, but an annual decrease in cigarette revenue of 8.52 percent. Counties are more dependent on gaming taxation because they receive all of the State Annual License Fee

(Table Tax). The median county received 7.88 percent of its total revenue from gaming taxes in 1970. This declined to 5.45 percent in 1977. For cities the decline was from 2.49 percent to 1.78 percent. For the median county, the annual decrease in real, per capita terms was 3.26 percent, and for cities the decrease was 3.05 percent annually.

The property tax has been seriously eroded for both counties and cities. The median county received 45.13 percent of its total revenue from property taxes in 1970. This declined to 32.72 percent in 1977. For cities the decline was from 19.19 percent to 15.22 percent. The median county recorded an annual decrease of 2.70 percent in real, per capita property tax revenues, and cities showed an annual decrease of 0.79 percent.

In addition to the increasing importance of grants to local revenues, enterprise funds and capital revenues have become more prominent. However, these revenues are not an important source of support for general government functions.

We are not suggesting a sudden, imminent fiscal crisis for local governments in Nevada within the present revenue structure. Rather, the situation is one of decreasing reliance on tax revenues and increasing reliance on grants. This trend suggests a problem of the erosion of local autonomy. It also requires State and local officials to develop alternatives in the case these grants are reduced. Serious attention needs to be given to the question of which expenditures now supported by grants can be reduced if grant revenues are reduced. It has been suggested that these expenditures are reversible because they have been used for capital projects instead of operating expenses. If the capital projects are necessary, they would have to be supplied from tax sources if the grants are reduced. Thus operating expenses would have to be reduced to support the capital projects. Moreover, capital projects lead to future operating expenses.



TABLE 3-1

Percentage Distribution of Revenues by Source for Cities  
1970 and 1977

Source	1970		1977	
	Median Percent	Range Percent	Median Percent	Range Percent
Property Tax	20.00	5.16 - 46.28	16.04	6.06 - 42.04
Gaming Tax	2.64	0.08 - 10.83	1.83	0.00 - 7.43
Liquor Tax	1.63	0.82 - 8.99	2.10	0.95 - 6.93
Gasoline Tax	2.01	0.00 - 4.76	1.48	0.64 - 2.34
Cigarette Tax	16.39	4.86 - 38.07	8.76	3.21 - 21.58
Sales Tax	0.00	0.00 - 16.72	10.11	0.00 - 19.74
Other Taxes	5.73	2.09 - 16.33	6.34	0.76 - 10.07
Total Taxes	57.40	20.52 - 85.41	50.33	18.73 - 77.40
Enterprise and Miscellaneous Revenues	34.59	14.59 - 71.72	36.41	14.02 - 72.39
Total Grant Revenue	0.00	0.00 - 41.13	8.67	3.49 - 21.51
Capital Revenue	0.85	0.00 - 23.20	2.19	0.00 - 10.30

TABLE 3-2

Percentage Distribution of Revenue by Source for Counties  
1970 and 1977

Source	1970		1977	
	Median Percent	Range Percent	Median Percent	Range Percent
Property Tax	45.21	13.58 - 70.82	32.76	15.98 - 53.15
Gaming Tax	7.91	2.82 - 42.63	5.62	2.57 - 22.05
Liquor Tax	0.75	0.00 - 2.46	0.85	0.16 - 1.75
Gasoline Tax	9.39	2.63 - 24.01	6.49	1.33 - 18.22
Cigarette Tax	5.82	0.00 - 18.00	2.72	0.00 - 6.70
Sales Tax	0.00	0.00 - 0.00	1.84	0.00 - 11.92
Other Taxes	2.15	0.04 - 17.98	5.12	0.28 - 22.66
Total Taxes	82.94	34.56 - 95.45	63.47	39.43 - 83.49
Enterprise and Miscellaneous Revenues	11.82	4.32 - 62.35	16.09	7.58 - 52.41
Total Grant Revenues	1.48	0.00 - 37.24	13.95	3.29 - 20.36
Capital Revenue	2.38	0.06 - 25.81	2.73	0.83 - 12.14

TABLE 3-3

Annual Growth Rates of Real, Per Capita Revenues for  
Cities, Median, Mean and Range: 1970 to 1977

Source	Median. Percent	Mean Percent	Range (percent)
Property Tax	-2.70	-1.84	-7.82 to +9.51
Gaming Tax	-3.05	-3.26	-10.94 to +7.94
Liquor Tax	0.31	0.77	-4.54 to +8.89
Gasoline Tax	-6.32	-6.24	-10.74 to 0.00
Cigarette Tax	-8.52	-7.82	-14.49 to +0.83
Sales Tax	0.00	2.69	0.00 to +11.26
Other Taxes	-0.90	-2.97	-33.80 to +5.32
Total Taxes	-0.70	-1.11	-6.49 to +2.43
Enterprise and Miscellaneous Revenues	0.93	0.25	-12.85 to +6.84
Total Grant Revenues	0.00	5.36	-38.98 to 60.60
Capital Revenues	0.00	2.22	-41.33 to +44.33
Total Revenues	0.64	-0.16	-7.93 to +4.34

Annual Growth Rates of Real, Per Capita Revenues  
for Counties, Median, Mean and Range: 1970 - 1977

Source	Median Percent	Mean Percent	Range (percent)
Property Tax	-0.79	-1.55	-9.78 to +6.57
Gaming Tax	-3.26	-3.29	-9.11 to +8.50
Liquor Tax	-0.93	-0.70	-5.74 to +9.52
Gasoline Tax	-4.93	-2.66	-9.79 to +14.57
Cigarette Tax	-8.54	-8.36	-14.98 to 0.00
Sales Tax	There were no county sales tax revenues in 1970.		
Other Taxes	13.42	15.48	-8.77 to +66.83
Total Taxes	-0.32	-1.34	-6.04 to +2.28
Enterprise and Miscellaneous Revenues	5.08	4.90	-15.09 to +21.97
Total Grant Revenues	30.61	30.07	-20.02 to 66.91
Capital Revenues	8.43	6.42	-30.82 to 37.62
Total Revenues	-0.05	+0.70	-7.18 to +7.64

It should also be noted that if local taxes are reduced in the name of tax reform, either the dependence of local governments on higher level governments will be increased, or expenditures would have to be decreased. It must be realized that expenditures in real, per capita terms have not increased and real, per capita tax revenues have decreased. One of the objectives of local tax reform should be to develop a tax structure more responsive to the economic dynamics of the local community.

TABLE 3-5

## TOTAL REVENUES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Caliente	74.37	Caliente	74.94	Nor. Las Vegas	-7.93	Fallon	100.00	Fallon	100.00
Gabbs	101.90	Gabbs	108.58	Boulder City	-3.73	Boulder City	100.00	Boulder City	100.00
Ely	124.19	Ely	127.56	Sparks	-2.57	Henderson	100.00	Henderson	100.00
Yerington	151.09	Yerington	128.70	Yerington	-2.29	Las Vegas	100.00	Las Vegas	100.00
Winnemucca	179.97	Lovelock	178.69	Lovelock	-1.53	Nor. Las Vegas	100.00	Nor. Las Vegas	100.00
Henderson	187.40	Winnemucca	191.53	Elko	.00	Carlin	100.00	Carlin	100.00
Las Vegas	188.24	Las Vegas	201.73	Caliente	.11	Elko	100.00	Elko	100.00
Lovelock	198.90	Sparks	202.73	Ely	.38	Wells	100.00	Wells	100.00
Median	209.20	Median	209.70	Median	.64	Median	100.00	Median	100.00
Elko	219.50	Henderson	216.67	Winnemucca	.89	Winnemucca	100.00	Winnemucca	100.00
Sparks	242.76	Elko	219.54	Gabbs	.91	Caliente	100.00	Caliente	100.00
Reno	245.04	Nor. Las Vegas	245.39	Las Vegas	.99	Yerington	100.00	Yerington	100.00
Wells	273.60	Reno	288.52	Fallon	1.55	Gabbs	100.00	Gabbs	100.00
Carlin	300.03	Carlin	344.05	Carlin	1.96	Lovelock	100.00	Lovelock	100.00
Fallon	328.59	Fallon	366.17	Henderson	2.07	Reno	100.00	Reno	100.00
Nor. Las Vegas	427.53	Wells	370.74	Reno	2.33	Sparks	100.00	Sparks	100.00
Boulder City	525.67	Boulder City	404.83	Wells	4.34	Ely	100.00	Ely	100.00
Mean	235.55	Mean	229.40	Mean	-1.16	Mean	100.00	Mean	100.00

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Washoe	111.85	Elko	158.74	Carson City	-7.18	Carson City	100.00	Carson City	100.00
Elko	136.97	Washoe	161.38	Lincoln	-3.93	Churchill	100.00	Churchill	100.00
Humboldt	152.27	Lyon	195.41	Esmeralda	-3.73	Clark	100.00	Clark	100.00
Mineral	155.33	Carson City	217.61	Nye	-3.02	Douglas	100.00	Douglas	100.00
Clark	156.72	Humboldt	228.92	White Pine	-2.30	Elko	100.00	Elko	100.00
Lyon	189.42	Clark	229.35	Churchill	-2.17	Esmeralda	100.00	Esmeralda	100.00
Douglas	235.89	White Pine	251.18	Eureka	-1.86	Eureka	100.00	Eureka	100.00
Pershing	242.95	Churchill	255.54	Lander	-1.08	Humboldt	100.00	Humboldt	100.00
Median	295.07	Median	265.20	Median	-.05	Median	100.00	Median	100.00
White Pine	295.07	Mineral	265.20	Storey	-.05	Lander	100.00	Lander	100.00
Churchill	297.53	Lincoln	305.88	Lyon	.44	Lincoln	100.00	Lincoln	100.00
Carson City	359.64	Douglas	317.51	Elko	2.11	Lyon	100.00	Lyon	100.00
Lander	366.55	Lander	339.89	Douglas	4.24	Mineral	100.00	Mineral	100.00
Lincoln	402.77	Nye	369.32	Washoe	5.24	Nye	100.00	Nye	100.00
Storey	434.80	Pershing	377.63	Clark	5.44	Pershing	100.00	Pershing	100.00
Nye	456.29	Storey	433.36	Humboldt	5.82	Storey	100.00	Storey	100.00
Eureka	617.42	Esmeralda	513.66	Pershing	6.30	Washoe	100.00	Washoe	100.00
Esmeralda	667.11	Eureka	541.88	Mineral	7.64	White Pine	100.00	White Pine	100.00
Mean	310.50	Mean	303.67	Mean	.70	Mean	100.00	Mean	100.00

TABLE 3-6

## TOTAL TAX REVENUES

## CITIES:

Real per capita Dollars			
1970		1977	
Ely	55.42	Ely	55.41
Caliente	63.05	Caliente	58.01
Gabbs	87.03	Yerington	62.79
Nor.Las Vegas	89.38	Fallon	68.58
Fallon	92.56	Gabbs	79.96
Carlin	94.53	Lovelock	88.37
Yerington	98.90	Nor.Las Vegas	105.99
Henderson	101.62	Carlin	106.30
Median	104.24	Median	106.32
Lovelock	106.86	Boulder City	106.35
Sparks	107.64	Sparks	106.68
Boulder City	107.89	Winnemucca	109.80
Winnemucca	132.48	Elko	112.42
Las Vegas	134.13	Henderson	114.94
Elko	138.41	Las Vegas	132.60
Reno	148.43	Wells	147.53
Wells	172.26	Reno	155.12
Mean	108.16	Mean	100.68

## COUNTIES:

Real per capita Dollars			
1970		1977	
Washoe	90.24	White Pine	99.03
Elko	101.75	Churchill	101.90
Churchill	102.84	Washoe	104.35
Clark	110.84	Elko	113.69
Mineral	128.83	Clark	114.49
Humboldt	131.53	Carson City	123.50
Carson City	150.94	Mineral	135.67
White Pine	151.12	Lyon	140.38
Median	179.78	Median	147.16
Lincoln	179.78	Humboldt	147.16
Lyon	180.81	Lincoln	160.83
Douglas	208.47	Lander	215.57
Pershing	216.78	Nye	233.19
Nye	238.53	Pershing	239.69
Lander	318.80	Douglas	244.58
Storey	373.58	Storey	321.08
Eureka	573.68	Eureka	382.49
Esmeralda	600.33	Esmeralda	428.86
Mean	226.99	Mean	194.51

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

Yerington	-6.49
Fallon	-4.28
Elko	-2.97
Lovelock	-2.71
Winnemucca	-2.68
Wells	-2.21
Gabbs	-1.21
Caliente	-1.19
Median	-.70
Boulder City	-.21
Las Vegas	-.16
Sparks	-.13
Ely	-.00
Reno	.63
Carlin	1.68
Henderson	1.76
Nor.Las Vegas	2.43
Mean	-1.11

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

White Pine	-6.04
Eureka	-5.79
Lander	-5.59
Esmeralda	-4.80
Lyon	-3.61
Carson City	-2.87
Storey	-2.16
Lincoln	-1.59
Median	-.32
Nye	-.32
Churchill	-.13
Clark	.46
Mineral	.74
Pershing	1.43
Humboldt	1.60
Elko	1.61
Washoe	2.08
Douglas	2.28
Mean	-1.34

Percentage of Total Revenues  
1970 1977

Boulder City	20.52	Fallon	18.73
Nor.Las Vegas	20.91	Boulder City	26.27
Fallon	28.17	Carlin	30.90
Carlin	31.51	Wells	39.79
Sparks	44.34	Nor.Las Vegas	43.19
Ely	44.62	Ely	43.44
Lovelock	53.73	Yerington	48.79
Henderson	54.22	Lovelock	49.45
Median	57.40	Median	50.33
Reno	60.57	Elko	51.21
Wells	62.96	Sparks	52.62
Elko	63.06	Henderson	53.05
Yerington	65.45	Reno	53.77
Las Vegas	71.25	Winnemucca	57.33
Winnemucca	73.61	Las Vegas	65.73
Caliente	84.78	Gabbs	73.64
Gabbs	85.41	Caliente	77.40
Mean	54.07	Mean	49.08

Percentage of Total Revenues  
1970 1977

Churchill	34.56	White Pine	39.43
Carson City	41.97	Churchill	39.88
Lincoln	44.64	Clark	49.92
White Pine	51.22	Mineral	51.16
Nye	52.28	Lincoln	52.58
Clark	70.72	Carson City	56.76
Elko	74.28	Nye	63.14
Washoe	80.68	Lander	63.42
Median	82.94	Median	63.47
Mineral	82.94	Pershing	63.47
Storey	85.92	Humboldt	64.29
Humboldt	86.38	Washoe	64.67
Lander	86.97	Eureka	70.58
Douglas	88.37	Elko	71.74
Pershing	89.23	Lyon	71.84
Esmeralda	89.99	Storey	74.09
Eureka	92.91	Douglas	77.03
Lyon	95.45	Esmeralda	83.49
Mean	73.44	Mean	62.21

## A. TAX REVENUES

### Findings and Recommendations Regarding Property Taxation

Property tax reduction heralded as property tax reform has become one of the most popular public issues in Nevada as well as around the nation in 1978. One of the concerns is that the property tax is levied on wealth which may not coincide with the flow of income of the taxpayer. While wealth and income are measures of ability to pay taxes, it is income which measures the immediate ability to pay taxes when due. However, Nevadans have steadfastly rejected a tax on income. In a simpler, less inflationary economy a tax on property was a reasonable measure of the ability to support government, as well as a reasonable indicator of benefits received from government. In an inflationary economy property values rise which allow property tax liabilities to rise. This process falls hardest on those who have accumulated non-income property, e.g., owner-occupied residences, but because of such circumstances as age or health find themselves on a fixed income. The combined effects of inflationary impacts on property values and fixed incomes has contributed to emotional campaigns to reduce the reliance on property taxes.

There is a popular notion that an across the board tax reduction on real property will simply be passed on to the benefit of consumers, renters and homeowners. Economic theory and empirical research suggests a more complicated process. The best evidence demonstrates that a reduction in taxes on real property tends to increase the market price of the asset in the short run for a windfall to the existing property owner. For example, the net effect would be an increase in the value of rental property as a reaction to the tax reduction with little if any net benefits to consumers or renters.



One of the greatest concerns is that as the tax base rises with inflated property values tax rates have been raised as well. This has not, and cannot, be the case in Nevada since the maximum rate is fixed. The base drifts up with inflation because the assessor is required for equalization purposes to reassess property every five years. The base also rises in response to new construction to accommodate additional industry and population. The base is determined by State law at 35 percent of market value and the combined rate is fixed at \$5 per \$100 of assessed value. Thus, the effective levy is limited to 1.75 percent of market value. This levy can be changed by a legislative adjustment in the assessment ratio from 35 percent and retain equalization.

Property tax revenue contributes to the support of counties, cities, schools and special districts. In addition, 25 cents of the \$5.00 rate is earmarked for the State general fund, and 11 cents supports the State mandated SAMI program. Thus, only \$4.64 is left for general local government support. The actual local levy is 1.62 percent rather than 1.75 percent.

Also, the dependence of local governments on the property tax varies considerably. Property taxes as a percentage of total revenues for counties ranged from 16 percent in Douglas County to 53 percent in Esmeralda County in 1977. The median county received 32 percent of the total revenues from the property tax. The dependence of cities on the property tax is considerably less. The range in 1977 for cities was from 6 percent in Boulder City to 42 percent in Gabbs, with the median being 16 percent. While it is outside the scope of our study we should not ignore the effects of property tax reduction on schools and special districts. Together with the State, schools and special districts take 52 percent of all property tax resources, with only 48 percent of the property tax revenues going to

cities, counties and their towns. Schools and special districts are especially dependent on property tax revenues.

A simple property tax reduction will have differential impact on local governments. The effect will be most severe on those governments with the fewest revenue alternatives such as special districts, and small cities, e.g. Gabbs, and small counties, e.g., Esmeralda. The effect will not only be on revenues, but will reduce the bonding capacity of the state and local governments, and the amount of Federal revenue sharing.

Nevada's Constitution requires that all property (real, personal and possessory) be uniformly assessed. This provision notwithstanding, considerable property has been provided special treatment or exempted by amendments to the Constitution. Agricultural land can be taxed at use value rather than market value with a penalty payment levied if the land is converted to non-agricultural use. Nevada's net proceeds tax on mineral rights or mineral deposits is in lieu of property taxes. Business inventories for sale out-of-state are exempted. Property used for charitable societies is exempted. Question Number 4 on the General Election ballot of November 7, 1978 asked the voters to decide if the Legislature should have the authority to exempt personal property. This exemption could include business inventories, livestock, household personal property, mobile homes, and bank shares. While each of the previous exemptions have been considered on their merits, the cumulative effect has been to narrow the base.

Because of this structure it is not surprising to find that real, per capita property tax revenues actually declined between 1970 and 1977 statewide. This is not true for all jurisdictions, but there is no evidence of increases inconsistent with costs of government or population for local governments. Statewide, the real per capita tax burden declined from \$84.48 to \$81.74 for counties and from \$39.14 to

\$33.02 for cities in this period. One of the most notable trends discovered in this study is the decreasing reliance on the property tax by cities and counties. In 1977, the median for property tax as a percentage of total revenue of counties was 31 percent while in 1970 the median was 42 percent. For cities property taxes as percentage of total revenues declined in each city with the exception of Sparks, North Las Vegas and Boulder City. Each of these three cities experienced a slight increase in reliance on property taxes. This trend would be of little concern if the slack was taken up by other taxes. But as we have noted elsewhere, the decline in reliance on property taxes has been almost exactly offset by an increasing reliance on Federal grants. This trend suggests problems of the loss of local autonomy. Few, if any, of the grants are without strings attached, as most fiscal officers of local government will attest.

With this structure and trends in mind, the following recommendations are offered. Tax relief must be balanced with the concern for local autonomy, fiscal responsibility and tax equity.

#### Recommendations for Property Tax Reform

1. Because of the unique structure of Nevada's property tax laws, we recommend a cautious and conservative approach to property tax reform. This study has found property tax revenues to have been relatively stable in real per capita terms. If the levy needs to be reduced it should be done by the relatively simple means of a reduction in the assessment ratio. This can be achieved without a constitutional amendment. It would also preserve the equalization process necessary for school finance and tax equity. However, it would mean additional state support for education. The consequence

on special districts is unknown at this time. Because of the relatively larger effects on county budgets additional revenues might need to be funneled to counties.

2. Since much of the public concern is over the sharp increases in assessments due to infrequent reassessment, the State should require annually adjusted assessments. For residential property this could be done with computer assisted techniques. This would free up staff and resources to work on non-residential property. It should be noted that annual reassessment would increase tax revenues.
3. The State should give up its claim to the 25 cents levy. If Question 6 is not implemented, the State could mandate that the lost revenue could not be picked up by the local governments. The effective rate would be \$4.75 per \$100 of assessed value. If Question 6 is implemented some relief to local governments could be offered by shifting the State share to local governments on the basis of the extent of the loss.
4. The State should assume fiscal responsibility of the SAMI program. This would free up 11 cents of the \$5.00 rate for local governments.
5. Prior to implementation of Question 4 this Committee should specify the classes of personal property to be exempted as a recommendation to the 1979 session of the Legislature.
6. If the major concern of property tax burdens is for those on fixed incomes, the proper reform would be for more liberal circuit breakers for those people rather than a broad based tax reduction. This would target the relief to those in most need of tax relief, without having an impact on local government finance. This is the only certain means of providing relief to renters.

TABLE 3-7

## PROPERTY TAX REVENUES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Henderson	13.14	Caliente	14.04	Yerington	-7.82	Boulder City	5.16	Fallon	6.06
Caliente	19.46	Ely	20.04	Elko	-7.15	Nor.Las Vegas	6.88	Boulder City	7.54
Ely	20.57	Yerington	22.13	Winnemucca	-5.57	Henderson	7.01	Carlin	10.26
Boulder City	27.14	Fallon	22.18	Caliente	-4.66	Fallon	9.20	Nor.Las Vegas	11.50
Nor.Las Vegas	29.40	Henderson	25.57	Wells	-4.43	Sparks	13.36	Henderson	11.80
Fallon	30.24	Nor.Las Vegas	28.22	Fallon	-4.43	Carlin	13.73	Wells	12.78
Sparks	32.44	Boulder City	30.53	Lovelock	-3.99	Reno	16.33	Elko	14.96
Yerington	38.26	Elko	32.85	Las Vegas	-3.21	Ely	16.57	Ely	15.71
Median	39.14	Median	33.02	Median	-2.70	Median	20.00	Median	16.04
Reno	40.01	Sparks	33.20	Carlin	-2.20	Lovelock	23.43	Sparks	16.37
Carlin	41.19	Lovelock	35.23	Nor.Las Vegas	-5.58	Wells	23.62	Yerington	17.20
Lovelock	46.59	Carlin	35.31	Gabbs	-4.47	Elko	24.68	Reno	18.33
Gabbs	47.16	Winnemucca	37.53	Ely	-3.38	Yerington	25.32	Caliente	18.74
Elko	54.17	Las Vegas	43.84	Sparks	.33	Caliente	26.16	Winnemucca	19.59
Las Vegas	54.87	Gabbs	45.64	Boulder City	1.68	Las Vegas	29.15	Lovelock	19.72
Winnemucca	55.43	Wells	47.39	Reno	3.98	Winnemucca	30.80	Las Vegas	21.73
Wells	64.63	Reno	52.87	Henderson	9.51	Gabbs	46.28	Gabbs	42.04
Mean	38.42	Mean	32.91	Mean	-1.84	Mean	19.86	Mean	16.52

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Douglas	32.03	Douglas	50.74	Eureka	-9.78	Douglas	13.58	Douglas	15.98
Mineral	61.10	Churchill	54.53	Lander	-6.72	Lincoln	19.25	Churchill	21.34
Churchill	61.29	Humboldt	60.89	Lyon	-5.81	Churchill	20.60	Mineral	23.12
Humboldt	64.36	Mineral	61.33	White Pine	-4.84	Carson City	23.49	Humboldt	26.60
Elko	67.87	Carson City	68.46	Storey	-4.73	Nye	27.49	Lincoln	26.72
Clark	70.85	White Pine	68.55	Esmeralda	-3.55	White Pine	32.61	White Pine	27.29
Washoe	77.07	Clark	75.14	Carson City	-3.00	Mineral	39.33	Eureka	27.96
Lincoln	77.52	Elko	79.19	Churchill	-1.67	Humboldt	42.27	Carson City	31.46
Median	84.48	Median	81.74	Median	-7.79	Median	45.21	Median	32.76
Carson City	84.48	Lincoln	81.74	Humboldt	-7.79	Clark	45.21	Clark	32.76
White Pine	96.22	Washoe	83.91	Mineral	.05	Eureka	48.65	Pershing	35.68
Pershing	122.88	Lyon	89.35	Lincoln	.76	Elko	49.55	Storey	36.63
Nye	125.45	Pershing	134.75	Clark	.84	Pershing	50.58	Nye	38.04
Lyon	134.16	Nye	140.47	Washoe	1.21	Storey	50.83	Lander	41.72
Storey	221.00	Lander	141.80	Pershing	1.32	Esmeralda	52.47	Lyon	45.72
Lander	236.92	Eureka	151.51	Nye	1.62	Lander	61.91	Elko	49.89
Eureka	300.40	Storey	158.75	Elko	2.20	Washoe	68.91	Washoe	51.99
Esmeralda	350.01	Esmeralda	273.02	Douglas	6.57	Lyon	70.82	Esmeralda	53.15
Mean	127.86	Mean	104.36	Mean	-1.55	Mean	42.21	Mean	34.47

7. If a major concern is the inability to pay taxes on property based on current income, a reduction in property taxes could be partially offset by an increase in the Real Property Transfer Tax. These taxes are only paid at the time income is realized from the sale of property. The present rate is 55 cents per \$500 of unencumbered valuation. If the tax were doubled it would have generated \$3.2 million in fiscal 1977. Moreover, in 1974 the Assessment and Tax Equity Committee recommended that more stringent recording procedures be implemented to ensure accurate reporting of sales prices. With or without an increase in this tax, the State could share more of this revenue with local governments since they bear the burden of administering the tax. The State now receives 75 percent of the revenues.
8. A similar proposal would be to enact the "pick-up" credit provision of the Federal Estate Tax. This would not be an additional burden on Nevada taxpayers, but would give credit for the Federal Estate Tax paid by Nevadans.

#### Trends and Distribution of Gasoline Taxes

The State levies a 4.5 cent per gallon tax on gasoline which is distributed to the State highway fund. There is a mandatory 0.5 cent tax per gallon which is distributed to local governments by the State presented formula:

1. One-fourth is proportioned to total area;
2. One-fourth is proportioned to population;
3. One-fourth is proportioned to road and street mileage;
4. One-fourth is proportioned to miles traveled on roads and streets in the county.

The State authorizes an additional 1.0 cent per gallon tax which is optional. These revenues are distributed on the basis of the assessed value of property in the jurisdiction to total assessed value in the county. The total 1.5 cent tax

is to be used for construction, maintenance and repairs of county and city streets. In addition the State authorizes an optional 2.0 cents per gallon tax for counties with regional street and highway plans.

The structure of gasoline taxes recognizes the diverse needs of local governments for road construction and maintenance. The distribution factors include mileage and traffic. The system also allows considerable option for local governments. However, a few problems have been noted by local officials.

In all cases the tax is levied on gallons consumed rather than on sales revenue. This has caused considerable difficulty for areas of rapid growth in the 1970's. The Clark and Washoe Regional Street and Highway Commissions have noted that inflation for highway construction has varied between eight and ten percent per year, and has reached a high of one and one-half percent per month. The impact of inflation has been compounded by the Federal mandate to increase the mileage for new automobiles. As the mileage of an average vehicle increases without a decrease in gasoline sales, total miles traveled increases without a proportionate increase in tax revenues to supply and maintain highways and traffic control systems. We have found that the gas tax revenue declined in real terms at an annual rate of 6.32 percent for the median city, and 4.93 percent for the median county between 1970 and 1977. Only one city and three counties registered an increase. The effect is in inefficient traffic systems in the urban areas.

This problem can be addressed in two ways. The tax per gallon claimed by the regional street and highway commissions can be increased periodically as the gasoline consumption per vehicle declines. This decline will continue as older vehicles not affected by the Federal standards are removed from the highways. Another approach would be to change the base from gallons consumed to a tax on sales revenue. The tax revenue

TABLE 3-8

## GAS TAX REVENUES

## CITIES:

Real per capita Dollars			Annual Growth Rate/Real per capita Dollars			Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Gabbs	0.00	Caliente	1.75	Fallon	-10.74	Gabbs	0.00	Boulder City	.64
Yerington	2.15	Yerington	1.86	Carlin	-10.36	Boulder City	.71	Carlin	.69
Ely	2.52	Henderson	2.02	Las Vegas	-9.91	Nor.Las Vegas	.77	Fallon	.81
Caliente	2.58	Gabbs	2.03	Wells	-9.50	Henderson	1.42	Nor.Las Vegas	.86
Henderson	2.66	Nor.Las Vegas	2.12	Winnemucca	-9.26	Yerington	1.42	Henderson	.93
Nor.Las Vegas	3.30	Ely	2.32	Elko	-7.92	Carlin	1.64	Wells	.95
Boulder City	3.71	Carlin	2.38	Sparks	-7.01	Fallon	1.91	Yerington	1.45
Lovelock	4.51	Boulder City	2.59	Nor.Las Vegas	-6.35	Sparks	2.00	Sparks	1.46
Median	4.68	Median	2.78	Median	-6.32	Median	2.01	Median	1.48
Sparks	4.85	Fallon	2.97	Reno	-6.30	Ely	2.03	Las Vegas	1.49
Carlin	4.92	Sparks	2.97	Caliente	-5.56	Lovelock	2.27	Lovelock	1.82
Las Vegas	6.02	Las Vegas	3.01	Boulder City	-5.14	Wells	2.50	Ely	1.82
Fallon	6.29	Lovelock	3.25	Lovelock	-4.70	Las Vegas	3.20	Gabbs	1.87
Wells	6.84	Wells	3.52	Henderson	-3.91	Caliente	3.47	Elko	2.00
Elko	7.63	Elko	4.38	Yerington	-2.05	Elko	3.48	Reno	2.24
Winnemucca	8.57	Winnemucca	4.48	Ely	-1.18	Reno	4.09	Caliente	2.34
Reno	10.03	Reno	6.45	Gabbs	0.00	Winnemucca	4.76	Winnemucca	2.34
Mean	4.79	Mean	3.01	Mean	-6.24	Mean	2.23	Mean	1.48

## COUNTIES:

<u>Real per capita Dollars</u>				<u>Annual Growth Rate/Real per capita Dollars</u>		<u>Percentage of Total Revenues</u>			
1970		1977		1970 to 1977		1970		1977	
Washoe	4.55	Storey	5.77	Storey	-9.79	Storey	2.63	Storey	1.33
Storey	11.45	Lyon	7.53	Esmeralda	-7.63	Churchill	4.06	Lyon	3.85
Lyon	11.95	Mineral	10.33	Eureka	-7.26	Washoe	4.06	Mineral	3.89
Churchill	12.07	Carson City	10.52	Lander	-6.79	Carson City	4.08	Carson City	4.83
Mineral	14.59	White Pine	12.49	Lyon	-6.61	Lyon	6.31	White Pine	4.97
Carson City	14.66	Clark	12.57	Elko	-6.33	Douglas	6.32	Clark	5.48
Douglas	14.91	Washoe	12.60	White Pine	-5.76	White Pine	6.34	Eureka	5.92
Clark	14.95	Elko	14.77	Lincoln	-5.07	Eureka	8.64	Douglas	5.98
Median	18.71	Median	16.58	Median	-4.93	Median	9.39	Median	6.49
White Pine	18.71	Churchill	16.58	Mineral	-4.93	Mineral	9.39	Churchill	6.49
Elko	23.00	Douglas	18.99	Carson City	-4.74	Clark	9.54	Lander	6.97
Humboldt	36.57	Lander	23.69	Nye	-4.16	Lander	10.40	Washoe	7.81
Pershing	37.93	Lincoln	30.81	Clark	-2.47	Esmeralda	10.59	Esmeralda	8.07
Lander	38.11	Eureka	32.10	Humboldt	1.88	Lincoln	10.91	Elko	9.30
Lincoln	43.95	Esmeralda	41.44	Pershing	1.97	Nye	13.90	Lincoln	10.07
Eureka	53.37	Humboldt	41.72	Douglas	3.46	Pershing	15.61	Pershing	11.53
Nye	63.42	Pershing	43.54	Churchill	4.54	Elko	16.79	Nye	12.83
Esmeralda	70.67	Nye	47.38	Washoe	14.57	Humboldt	24.01	Humboldt	18.22
Mean	28.52	Mean	22.52	Mean	-2.66	Mean	9.62	Mean	7.50



would not be solely dependent on quantity, but on price times quantity. Assuming that the price of gasoline will rise at the rate of inflation of highway construction and maintenance, the tax rate would not have to be adjusted periodically.

Apparently local governments do not share in the tax paid on diesel fuel. Users of diesel fuel pay 6 cents a gallon to the Motor Carrier Division of the Department of Motor Vehicles which is distributed to the State highway fund. Local governments with substantial warehousing are burdened with truck traffic on local streets and roads, and these roads must meet higher standards than the typical residential or business streets with no fuel tax support.

#### Recommendation Regarding Gasoline Taxes

1. Because of the inelastic nature of the tax per gallon all taxes on gasoline for highway construction and maintenance should be changed to a tax on gasoline sales. The existing distribution formula and options should be maintained.
2. Taxes on fuel other than gasoline (primarily diesel fuel) should include some distribution to local government entities.

#### Analysis of Gaming Taxation

The growth of the gaming industry is the major contribution to rapid population growth in the urban areas of Nevada. Consequently a substantial portion of the increased demand for public services can be traced directly or indirectly to the expansion of gaming and tourism. There is evidence that Nevada's twenty-four hour entertainment cities have higher than normal per capita demands for certain services.

The structure of the gaming tax systems in Nevada does not establish a clear link between revenues generated and the

attendant costs. The gross revenue tax is the most productive gaming tax, and the most responsive to growth in gaming activity. These revenues are earmarked to the State general fund. The Quarterly Flat License Fee is levied on number of games and distributed to the State's general fund. The Annual State License Fee is based on the number of games and divided equally among the seventeen counties. Quarterly County License Fees are mandated by the State and shared between the State's general fund (25 percent) and local governments (75 percent). The State's Casino Entertainment Tax is also earmarked for the State's general fund. Local governments can also levy additional fees on gaming at their own discretion. The result is a confusing and complicated tax structure with revenues flowing in both directions between State and local governments.

This study has found that gaming tax revenues received by local governments are not responsive to either inflation or population. The mean real per capita growth rate of gaming revenue was -3.29 percent for counties and -3.26 percent for cities between 1970 and 1977. This trend is due largely to the reliance of local governments on taxes based on a per game base rather than on gross revenues.

#### Recommendations for Reforming Gaming Taxation

1. The gaming tax system should be simplified and made more responsive to growth. The base of all State mandated gaming taxes should be on gross revenues. The system has been developed to meet certain immediate problems, rather than developed as a simple, rational system. For example, the annual State License Fee was implemented to provide relief for certain counties without an adequate tax base. The Quarterly County License Fee was implemented to direct some revenues back to the areas of gaming activity. If a single gross revenue tax were used the rates could be set to replace the Annual State Fees and

TABLE 3-9

## GAMING TAX REVENUE

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real		Percentage of Total Revenues			
1970		1977		per capita Dollars		1970		1977	
				1970 to 1977					
Boulder City	.41	Boulder City	0.00	Yerington	-10.94	Boulder City	.08	Boulder City	0.00
Gabbs	.97	Gabbs	.65	Caliente	-10.71	Carlin	.41	Carlin	.35
Carlin	1.24	Carlin	1.19	Nor.Las Vegas	-8.58	Gabbs	.95	Gabbs	.60
Ely	1.64	Yerington	1.21	Elko	-5.75	Nor.Las Vegas	1.27	Yerington	.94
Yerington	2.61	Caliente	1.29	Gabbs	-5.66	Ely	1.32	Ely	1.07
Caliente	2.73	Ely	1.36	Fallon	-5.11	Yerington	1.73	Nor.Las Vegas	1.22
Lovelock	4.99	Nor.Las Vegas	2.99	Las Vegas	-3.25	Fallon	2.07	Fallon	1.30
Henderson	5.20	Henderson	4.21	Reno	-3.05	Lovelock	2.51	Caliente	1.72
Median	5.32	Median	4.48	Median	-3.05	Median	2.64	Median	1.83
Nor.Las Vegas	5.44	Fallon	4.75	Henderson	-3.04	Henderson	2.78	Henderson	1.94
Fallon	6.79	Elko	4.99	Ely	-2.67	Elko	3.40	Elko	2.27
Elko	7.46	Lovelock	5.23	Sparks	-2.41	Caliente	3.66	Lovelock	2.92
Sparks	10.33	Sparks	8.73	Carlin	-.65	Wells	4.23	Sparks	4.30
Wells	11.56	Las Vegas	12.55	Boulder City	0.00	Sparks	4.26	Wells	5.43
Winnemucca	12.77	Winnemucca	13.81	Lovelock	.66	Winnemucca	7.09	Las Vegas	6.22
Las Vegas	15.76	Wells	20.15	Winnemucca	1.12	Las Vegas	8.37	Winnemucca	7.21
Reno	26.54	Reno	21.44	Wells	7.94	Reno	10.83	Reno	7.43
Mean	7.28	Mean	6.53	Mean	-3.26	Mean	3.44	Mean	2.81

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real		Percentage of Total Revenues			
1970		1977		per capita Dollars		1970		1977	
				1970 to 1977					
Washoe	5.52	Washoe	4.81	White Pine	-9.11	Carson City	2.82	Churchill	2.57
Elko	7.44	Churchill	6.58	Douglas	-8.37	Churchill	3.13	Washoe	2.98
Churchill	9.30	Carson City	6.74	Esmeralda	-7.12	Nye	3.45	Carson City	3.10
Carson City	10.14	Lyon	7.46	Carson City	-5.83	Washoe	4.93	White Pine	3.32
Lyon	10.39	White Pine	8.35	Eureka	-4.97	White Pine	5.35	Nye	3.62
Clark	12.14	Clark	12.13	Churchill	-4.96	Elko	5.43	Lyon	3.82
Nye	15.76	Humboldt	12.88	Lyon	-4.75	Lyon	5.49	Clark	5.29
Mineral	15.80	Nye	13.38	Lander	-4.14	Clark	7.75	Mineral	5.50
Median	15.80	Median	13.48	Median	-3.26	Median	7.91	Median	5.62
White Pine	15.80	Elko	13.48	Humboldt	-3.26	Lincoln	7.91	Humboldt	5.62
Humboldt	16.18	Mineral	14.59	Lincoln	-2.93	Lander	8.41	Lander	6.78
Pershing	30.48	Lander	23.06	Nye	-2.34	Mineral	10.17	Pershing	7.25
Lander	30.81	Lincoln	25.95	Storey	-1.95	Humboldt	10.63	Lincoln	8.48
Lincoln	31.86	Pershing	27.37	Washoe	-1.95	Pershing	12.55	Elko	8.49
Eureka	84.33	Douglas	55.97	Pershing	-1.53	Eureka	13.66	Eureka	10.99
Douglas	100.55	Eureka	59.56	Mineral	-1.13	Esmeralda	20.60	Esmeralda	16.25
Storey	109.56	Esmeralda	83.48	Clark	-.01	Storey	25.20	Douglas	17.63
Esmeralda	137.45	Storey	95.55	Elko	8.50	Douglas	42.63	Storey	22.05
Mean	37.85	Mean	27.73	Mean	-3.29	Mean	11.18	Mean	7.87

the Quarterly County Fees. A formula could be constructed to protect the State's general fund, to distribute funds to counties with a narrow tax base, and to direct revenues back to areas of gaming activity. The single gross revenue tax would be more responsive to growth.

2. The casino entertainment tax should be shared with the areas where these revenues are generated. Large casinos with showrooms place substantial demands on public services. This would direct revenues to local governments to help meet these demands.
3. There are substantial differences in the level of local gaming fees. Those governments in need of additional revenue should examine their own fee structure.

#### Trends and Distribution of Cigarette Tax Revenues

Cigarettes are taxed at the rate of 10 cents per package of 20. Revenues from cigarette taxes amounted to 16.39 percent of total revenues for the median city in 1970 and declined to 8.76 percent in 1977. The percentage support for counties was 5.82 percent in 1970 and 2.72 percent in 1977. For cities the real per capita revenue declined from \$30.64 in 1970 to \$17.72 in 1977. This amounted to a decline of 7.82 percent annually. In the case of counties the real, per capita revenue was \$17.19 in 1970 and \$8.44 in 1967 for a decline of 8.36 percent annually. Only the City of North Las Vegas registered an increase, and this was less than 1.0 percent annually. In general, the small counties experienced the greatest relative decline and cities in Clark County had the smallest decline.

Some of this decline might be due to the levy of the tax on volume rather than sales revenue. But the situation is complicated by the increased sales of non-taxable cigarettes on Indian lands.

The distribution of the cigarette tax revenue is totally to local governments. All revenues go to the county if there are no incorporated cities; if there is one incorporated city, the revenues are shared between the city and the county based on the population distribution established in the decennial census; if there are two or more incorporated cities, the county receives none of the revenues. The distribution between two or more incorporated cities is again based on population.

#### Recommendations Regarding Cigarette Taxation

1. The distribution of cigarette tax revenues highlights the problems of using the decennial census as the base point. Cities which grew slower than other cities within the county or slower than the county received a windfall of income during the latter part of the decade. But they will face serious adjustment problems in the beginning of the next decade. The Department of Taxation should be consulted to see if there would be serious administrative problems in tying the distribution of revenues to the volume of sales in each jurisdiction. Administrative problems could be reduced by lagging the adjustment by one-quarter or even one year. Even the one-year lag would avoid the serious problems of adjustment each ten years. Inquiry should be made to determine if the distribution of each of the sales and excise taxes could be adjusted more frequently also.
2. The outdated rationale for excluding the counties which have two or more cities (Clark, Elko, Washoe) from the receipt of any cigarette tax revenues should be reconsidered. The same reconsideration should be given to each of the sales and excise taxes. We are not recommending that city revenues be diverted to counties. Instead, it should be

recognized that counties are in need of an elastic tax structure that will be responsive to growth. Growing urbanized areas outside of city limits need people taxes because they have the similar needs to cities. Examples of these problem areas are the Winchester-Paradise area of Clark County and the Sun Valley, Lemmon Valley and Incline Village areas of Washoe County. None of these areas receive a share of the cigarette or sales tax revenues.

3. We expect that cigarette tax revenues will continue to decline in real, per capita terms and as a percentage of total revenues for reasons cited above. One of the causes of this decline is the sale of cigarettes on Indian lands. This question is in the court system now. Therefore, we have no recommendation on this problem.

#### Trends and Distribution of the County/City Relief Tax

In 1969 the Legislature enacted the County/City Relief Tax (local sales tax). It is a levy of 0.5 percent on all taxable sales and taxable items of use. In fact it is a levy on the same base as the State sales tax. Services are exempt from the tax. The revenues are returned to the county of origin. If there are no incorporated cities all revenues go to the county; if there is one incorporated city, the revenues are shared on the population ratio established in the decennial census; if there are two or more incorporated cities, the revenues are shared between the cities by population with none of the revenues returning to the county.

The levy is effected by county ordinance only. In 1970, only the cities of Clark and Washoe counties received any of the tax revenues. By 1977, all cities except Ely and all counties except Clark, Elko, Esmeralda, Eureka, Lander, Washoe, and White Pine benefited from the tax. Clark, Elko and Washoe did not receive any revenue because they have two or more

TABLE 3-10

## CIGARETTE TAX REVENUES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Ely	20.49	Fallon	11.76	Fallon	-14.49	N.L. Vegas	4.86	Fallon	3.21
N.L. Vegas	20.77	Yerington	12.97	Lovelock	-12.76	Boulder City	6.09	Boulder City	4.67
Las Vegas	21.00	Winnemucca	13.60	Winnemucca	-11.45	Fallon	9.86	Wells	5.76
Gabbs	27.22	Gabbs	14.29	Yerington	-11.31	Las Vegas	11.15	Reno	6.17
Sparks	27.26	Sparks	14.48	Wells	-10.49	Sparks	11.23	Carlin	6.97
Caliente	28.31	Lovelock	16.04	Elko	-9.65	Carlin	11.61	Winnemucca	7.10
Yerington	28.63	Caliente	16.17	Gabbs	-9.20	Reno	12.60	Sparks	7.14
Winnemucca	30.32	Ely	17.28	Sparks	-9.04	Wells	16.27	Elko	8.55
Median	30.60	Median	17.54	Median	-8.52	Median	16.39	Median	8.76
Reno	30.88	Reno	17.81	Caliente	-8.00	Ely	16.50	N.L. Vegas	8.97
Boulder City	32.03	Elko	18.78	Reno	-7.86	Elko	16.81	Lovelock	8.98
Fallon	32.42	Boulder City	18.89	Boulder City	-7.55	Winnemucca	16.85	Las Vegas	9.69
Carlin	34.83	Las Vegas	19.55	Carlin	-5.34	Yerington	18.95	Yerington	10.08
Henderson	35.53	Wells	21.36	Henderson	-5.30	Henderson	18.96	Henderson	11.31
Elko	36.90	N.L. Vegas	22.02	Ely	-2.44	Lovelock	19.70	Gabbs	13.16
Lovelock	39.19	Carlin	23.97	Las Vegas	-1.02	Gabbs	26.71	Ely	13.55
Wells	44.51	Henderson	24.51	N.L. Vegas	.83	Caliente	38.07	Caliente	21.58
Mean	30.64	Mean	17.72	Mean	-7.82	Mean	16.01	Mean	9.18

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Clark	0.00	Clark	0.00	Esmeralda	-14.98	Clark	0.00	Clark	0.00
Elko	0.00	Elko	0.00	Storey	-14.92	Elko	0.00	Elko	0.00
Washoe	0.00	Washoe	0.00	White Pine	-14.00	Washoe	0.00	Washoe	0.00
Humboldt	11.15	Humboldt	6.22	Lincoln	-12.96	Eureka	4.27	Pershing	1.66
Pershing	14.80	Pershing	6.25	Pershing	-12.31	Carson City	4.65	Storey	2.08
Douglas	16.21	White Pine	6.78	Eureka	-10.01	Nye	5.13	Esmeralda	2.37
Carson City	16.73	Carson City	8.87	Carson City	-9.06	Lander	5.13	Eureka	2.42
Churchill	17.31	Storey	9.03	Nye	-9.04	Esmeralda	5.20	White Pine	2.70
Median	17.34	Median	9.54	Median	-8.54	Median	5.82	Median	2.72
Lyon	17.34	Lyon	9.54	Lyon	-8.54	Churchill	5.82	Humboldt	2.72
White Pine	18.07	Lincoln	9.61	Humboldt	-8.34	Storey	5.90	Douglas	3.09
Lander	18.82	Douglas	9.81	Churchill	-8.02	Lincoln	5.91	Lincoln	3.14
Nye	23.42	Churchill	9.87	Douglas	-7.17	Pershing	6.09	Nye	3.37
Lincoln	23.82	Lander	12.11	Mineral	-6.47	White Pine	6.12	Lander	3.56
Storey	25.64	Esmeralda	12.15	Lander	-6.29	Douglas	6.87	Churchill	3.86
Eureka	26.37	Nye	12.44	Clark	0.00	Humboldt	7.32	Carson City	4.08
Mineral	27.97	Eureka	13.09	Elko	0.00	Lyon	9.16	Lyon	4.88
Esmeralda	34.67	Mineral	17.78	Washoe	0.00	Mineral	18.00	Mineral	6.70
Mean	17.19	Mean	8.44	Mean	-8.36	Mean	5.62	Mean	2.74

incorporated cities. For the cities which had this tax in 1970 the annual growth rates are substantial. The real per capita annual growth rate for these cities ranged from 4.17 percent in Henderson to 11.26 percent in North Las Vegas. It has become a significant factor in city revenue structure. The percentage of revenues derived from the County/City Relief Tax in 1977 ranged from 3.39 percent in Fallon to 19.74 percent in Caliente. Fallon's dependence is affected by the fact of its heavy reliance on enterprise revenue. This tax was much less important for counties. Of those counties receiving this revenue, the percentage of total revenues derived from the sales tax ranged from 1.84 percent in Pershing to 11.05 percent in Douglas. The position of Douglas is affected by the fact that Douglas depends so little on the property tax.

The sales tax is the most responsive tax to population and inflation. In fact, it is the only local tax which recorded an increase in real per capita dollars between 1970 and 1977.

It would be difficult to reform the County/City Relief Tax because it is levied on the same base as the General Sales and Use Tax and the Local School Support Tax. The Sales and Use Tax Act was approved by a referendum vote in 1956 and can only be amended by a popular vote. An Initiative Petition is being circulated to exempt food for human consumption from the Sales and Use Tax. If that provision is accepted it would undoubtedly apply to the County/City Relief Tax and the Local School Support Tax. The initiative measure does not require that the lost revenue be recovered by higher rates or by extending the base to untaxed services. Although the measure would not become effective until July 1, 1981, attention should be given to the need for replacing the lost revenue if the measure has a reasonable chance of



being implemented. While Questions 4. and 6 would have the greatest impact on counties and schools, the exemption of food from the sales tax would have the greatest impact on cities and shools.

#### Trends and Distribution of Liquor Taxes

Taxes on liquor are an insignificant source of revenues for cities and counties. In 1970 cities received 1.73 percent of their revenues from liquor, and 2.16 in 1977. Caliente was the city most dependent on liquor taxes with 6.62 percent of its total revenue demand from taxes on liquor in 1977. The percentage of total county revenues derived from liquor taxes was less than 1.0 percent in 1970 and 1977. No county got more than 2.0 percent of its total revenue from liquor taxes in 1977.

It was not until fiscal year 1969-70 that local governments received any of the tax revenues on liquor. Since that year 5/19 of the revenues collected on liquor with an alcoholic content of more than 22 percent go to local governments. If there are no incorporated cities in the county all local revenues are distributed to the county. If there is one city, the revenues are shared between the city and the county on the decennial census population ratio. If there are two or more cities, the county receives nothing, and the revenues are shared between the cities on a population basis. According to the 1976-77 Annual Report of the Nevada Department of Taxation counties received \$279,805; cities \$1,913,827; and the State \$8,341,894.

Public views on the treatment of alcoholism have shifted toward rehabilitation in the last several years. Nevada has participated in this transition. The effect has been to place additional financial burdens on local governments to develop and oversee rehabilitation programs. While rehabilitation programs are expensive, the social and personal dividends can offset the costs as many business firms have discovered with their own programs.

TABLE 3-11

## SALES TAX REVENUES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Fallon	0.00	Ely	0.00	Fallon	0.00	Fallon	0.00	Ely	0.00
Carlin	0.00	Fallon	12.41	Carlin	0.00	Carlin	0.00	Fallon	3.39
Elko	0.00	Yerington	12.91	Elko	0.00	Elko	0.00	Wells	7.26
Wells	0.00	Gabbs	13.41	Wells	0.00	Wells	0.00	Boulder City	8.41
Winnemucca	0.00	Caliente	14.80	Winnemucca	0.00	Winnemucca	0.00	Carlin	8.78
Caliente	0.00	Lovelock	17.76	Caliente	0.00	Caliente	0.00	Lovelock	9.94
Yerington	0.00	Winnemucca	19.30	Yerington	0.00	Yerington	0.00	Yerington	10.03
Gabbs	0.00	Elko	23.68	Gabbs	0.00	Gabbs	0.00	Winnemucca	10.08
Median	0.00	Median	25.23	Median	0.00	Median	0.00	Median	10.11
Lovelock	0.00	Sparks	26.77	Lovelock	0.00	Lovelock	0.00	Reno	10.15
Ely	0.00	Wells	26.93	Ely	0.00	Ely	0.00	Elko	10.79
Sparks	17.40	Reno	29.29	Henderson	4.17	Nor.Las Vegas	4.22	Gabbs	12.35
Reno	17.91	Carlin	30.22	Boulder City	5.00	Boulder City	4.57	Sparks	13.21
Nor.Las Vegas	18.05	Boulder City	34.06	Sparks	6.15	Sparks	7.17	Nor.Las Vegas	16.18
Las Vegas	18.24	Las Vegas	35.26	Reno	7.03	Reno	7.31	Las Vegas	17.48
Boulder City	24.00	Nor.Las Vegas	39.70	Las Vegas	9.41	Las Vegas	9.69	Henderson	19.36
Henderson	31.34	Henderson	41.95	Nor.Las Vegas	11.25	Henderson	16.72	Caliente	19.74
Mean	7.93	Mean	23.65	Mean	2.69	Mean	3.11	Mean	11.07

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Carson City	0.00	Clark	0.00	Carson City	0.00	Carson City	0.00	Clark	0.00
Churchill	0.00	Elko	0.00	Churchill	0.00	Churchill	0.00	Elko	0.00
Clark	0.00	Esmeralda	0.00	Clark	0.00	Clark	0.00	Esmeralda	0.00
Douglas	0.00	Eureka	0.00	Douglas	0.00	Douglas	0.00	Eureka	0.00
Elko	0.00	Lander	0.00	Elko	0.00	Elko	0.00	Lander	0.00
Esmeralda	0.00	Storey	0.00	Esmeralda	0.00	Esmeralda	0.00	Storey	0.00
Eureka	0.00	Washoe	0.00	Eureka	0.00	Eureka	0.00	Washoe	0.00
Humboldt	0.00	White Pine	0.00	Humboldt	0.00	Humboldt	0.00	White Pine	0.00
Median	0.00	Median	6.94	Median	0.00	Median	0.00	Median	1.84
Lander	0.00	Pershing	6.94	Lander	0.00	Lander	0.00	Pershing	1.84
Lincoln	0.00	Lincoln	8.72	Lincoln	0.00	Lincoln	0.00	Lincoln	2.85
Lyon	0.00	Humboldt	8.82	Lyon	0.00	Lyon	0.00	Nye	2.89
Mineral	0.00	Lyon	9.50	Mineral	0.00	Mineral	0.00	Humboldt	3.85
Nye	0.00	Churchill	10.42	Nye	0.00	Nye	0.00	Churchill	4.08
Pershing	0.00	Nye	10.66	Pershing	0.00	Pershing	0.00	Mineral	4.48
Storey	0.00	Mineral	11.87	Storey	0.00	Storey	0.00	Lyon	6.68
Washoe	0.00	Carson City	14.53	Washoe	0.00	Washoe	0.00	Carson City	11.92
White Pine	0.00	Douglas	37.83	White Pine	0.00	White Pine	0.00	Douglas	2.56
Mean	0.00	Mean	7.02	Mean	0.00	Mean	0.00	Mean	

TABLE 3-12

## LIQUOR TAX REVENUES

## CITIES:

<u>Real per capita Dollars</u>			
1970		1977	
Ely	1.84	Yerington	2.58
Yerington	2.58	Winnemucca	2.70
Winnemucca	2.73	Gabbs	3.11
Gabbs	2.89	Ely	3.43
Wells	3.48	Fallon	3.48
N.L. Vegas	3.50	Sparks	3.78
Sparks	3.67	Wells	4.24
Las Vegas	4.48	Boulder City	4.71
Median	4.49	Median	4.82
Henderson	4.49	Lovelock	4.93
Boulder City	4.64	Caliente	5.19
Carlin	4.67	N.L. Vegas	5.19
Fallon	4.78	Elko	5.64
Lovelock	6.58	Las Vegas	5.66
Caliente	6.69	Carlin	5.91
Elko	7.00	Reno	6.02
Reno	7.07	Henderson	6.09
Mean	4.44	Mean	4.54

## COUNTIES:

<u>Real per capita Dollars</u>			
1970		1977	
Elko	0.00	Washoe	.25
Washoe	.37	Elko	.34
Humboldt	1.56	Clark	1.28
Clark	1.82	Pershing	1.51
Pershing	1.87	Humboldt	1.66
White Pine	2.17	White Pine	1.69
Churchill	2.22	Carson City	2.10
Carson City	2.24	Churchill	2.28
Median	2.37	Median	2.70
Douglas	2.37	Lyon	2.70
Lincoln	2.46	Esmeralda	2.87
Lander	2.76	Lander	2.99
Lyon	2.89	Lincoln	3.13
Esmeralda	3.12	Nye	3.39
Nye	3.35	Eureka	3.45
Mineral	3.81	Storey	3.67
Eureka	4.58	Douglas	4.62
Storey	5.49	Mineral	4.65
Mean	2.53	Mean	2.50

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

Fallon	-4.54
Lovelock	-4.12
Caliente	-3.61
Elko	-3.08
Reno	-2.29
Winnemucca	-.13
Yerington	.01
Boulder City	.22
Median	.31
Sparks	.41
Gabbs	1.07
Wells	2.83
Las Vegas	3.32
Carlin	3.37
Henderson	4.37
N.L. Vegas	5.63
Ely	8.89
Mean	.77

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

Storey	-5.74
Washoe	-5.46
Clark	-5.10
Eureka	-4.08
White Pine	-3.59
Pershing	-3.13
Esmeralda	-1.17
Lyon	-1.01
Median	-.93
Carson City	-.93
Elko	0.00
Nye	.16
Churchill	.34
Humboldt	.88
Lander	1.14
Mineral	2.84
Lincoln	3.43
Douglas	9.52
Mean	-.70

Percentage of Total Revenues

1970 1977

N.L. Vegas	.82	Fallon	.95
Boulder City	.88	Wells	1.14
Wells	1.27	Boulder City	1.16
Fallon	1.45	Winnemucca	1.41
Ely	1.48	Carlin	1.72
Sparks	1.51	Sparks	1.86
Winnemucca	1.52	Yerington	2.00
Carlin	1.56	Reno	2.09
Median	1.63	Median	2.10
Yerington	1.70	N.L. Vegas	2.12
Las Vegas	2.38	Elko	2.57
Henderson	2.39	Ely	2.69
Gabbs	2.83	Lovelock	2.76
Reno	2.89	Las Vegas	2.80
Elko	3.19	Henderson	2.81
Lovelock	3.31	Gabbs	2.87
Caliente	8.99	Caliente	6.93
Mean	2.39	Mean	2.37

Percentage of Total Revenues  
1970 1977

Elko	0.00	Washoe	.16
Washoe	.33	Elko	.21
Esmeralda	.47	Pershing	.40
Lincoln	.61	Clark	.56
Carson City	.62	Esmeralda	.56
Nye	.73	Eureka	.64
White Pine	.74	White Pine	.67
Eureka	.74	Humboldt	.72
Median	.75	Median	.85
Churchill	.75	Storey	.85
Lander	.75	Lander	.88
Pershing	.77	Churchill	.89
Douglas	1.00	Nye	.92
Humboldt	1.02	Carson City	.96
Clark	1.16	Lincoln	1.02
Storey	1.26	Lyon	1.38
Lyon	1.53	Douglas	1.45
Mineral	2.46	Mineral	1.75
Mean	.88	Mean	.82

TABLE 3-13

## OTHER TAXES REVENUES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real		Percentage of Total Revenues			
1970		1977		per capita Dollars		1970		1977	
				1970 to 1977					
Caliente	3.29	Gabbs	.83	Gabbs	-33.80	Nor.Las Vegas	2.09	Gabbs	.76
Lovelock	5.00	Caliente	4.77	Yerington	-14.20	Lovelock	2.51	Carlin	2.12
Carlin	7.68	Nor.Las Vegas	5.76	Wells	-7.76	Carlin	2.56	Nor.Las Vegas	2.35
Ely	8.34	Lovelock	5.93	Nor.Las Vegas	-6.26	Boulder City	3.03	Fallon	3.01
Gabbs	8.80	Carlin	7.31	Winnemucca	-2.99	Fallon	3.67	Lovelock	3.32
Nor.Las Vegas	8.92	Yerington	9.13	Elko	-1.90	Caliente	4.42	Boulder City	3.85
Henderson	9.26	Henderson	10.59	Fallon	-1.25	Sparks	4.81	Henderson	4.89
Sparks	11.68	Ely	10.97	Las Vegas	-1.11	Henderson	4.94	Las Vegas	6.31
Median	11.86	Median	11.00	Median	-.90	Median	5.73	Median	6.34
Fallon	12.04	Fallon	11.04	Carlin	-.70	Reno	6.53	Caliente	6.36
Las Vegas	13.76	Las Vegas	12.73	Boulder City	-.34	Ely	6.72	Wells	6.46
Boulder City	15.94	Boulder City	15.57	Henderson	1.91	Las Vegas	7.31	Yerington	7.09
Reno	15.99	Sparks	16.76	Lovelock	2.46	Gabbs	8.64	Reno	7.36
Winnemucca	22.66	Winnemucca	18.38	Ely	3.91	Elko	11.50	Sparks	8.27
Yerington	24.68	Reno	21.23	Reno	4.05	Winnemucca	12.59	Ely	8.60
Elko	25.24	Elko	22.10	Sparks	5.16	Wells	15.07	Winnemucca	9.60
Wells	41.23	Wells	23.95	Caliente	5.32	Yerington	16.33	Elko	10.07
Mean	14.66	Mean	12.32	Mean	-2.97	Mean	7.04	Mean	5.65

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real		Percentage of Total Revenues			
1970		1977		per capita Dollars		1970		1977	
				1970 to 1977					
White Pine	.15	Lincoln	.87	Carson City	-8.77	Lincoln	.04	Lincoln	.28
Lincoln	.17	White Pine	1.16	Nye	-3.79	White Pine	.05	White Pine	.46
Storey	.45	Churchill	1.64	Washoe	.23	Storey	.10	Churchill	.64
Churchill	.64	Washoe	2.79	Eureka	2.29	Churchill	.22	Nye	1.48
Lander	1.39	Nye	5.47	Clark	2.68	Lander	.38	Washoe	1.73
Humboldt	1.72	Elko	6.11	Douglas	6.45	Esmeralda	.66	Esmeralda	3.09
Washoe	2.74	Lander	11.93	Elko	8.23	Humboldt	1.13	Lander	3.51
Elko	3.43	Carson City	12.28	Pershing	11.21	Nye	1.56	Elko	3.85
Median	4.07	Median	13.36	Median	13.42	Median	2.15	Median	5.12
Lyon	4.07	Clark	13.36	Churchill	13.42	Lyon	2.15	Pershing	5.12
Esmeralda	4.41	Lyon	14.33	Mineral	14.28	Washoe	2.45	Carson City	5.64
Mineral	5.57	Humboldt	14.99	Lyon	17.98	Elko	2.51	Mineral	5.70
Nye	7.13	Mineral	15.12	Esmeralda	18.32	Mineral	3.58	Clark	5.83
Pershing	8.82	Esmeralda	15.90	Lincoln	23.13	Pershing	3.63	Humboldt	6.55
Clark	11.08	Pershing	19.32	White Pine	28.97	Carson City	6.31	Lyon	7.33
Carson City	22.70	Storey	48.31	Lander	30.68	Clark	7.07	Storey	11.15
Douglas	42.40	Douglas	66.62	Humboldt	30.95	Eureka	16.95	Douglas	20.98
Eureka	104.62	Eureka	122.78	Storey	66.83	Douglas	17.98	Eureka	22.66
Mean	13.03	Mean	21.94	Mean	15.48	Mean	3.93	Mean	6.24

Recommendation Regarding Taxation of Liquor

1. Revenues should be targeted to areas making an effort to support approved rehabilitation programs. This could be done out of the existing tax rate structure, or by increasing liquor taxes.

## B. NON-TAX REVENUES

### Trends in Total Non-Tax Revenues

Non-tax revenues have the ability to earn revenue beyond the normal governmental taxing powers. These revenues may include charges to offset service costs or general operating revenues of a governmental business. Non-tax revenues consist of enterprise revenue and other miscellaneous revenue.

Non-tax revenues for counties in 1977 as a percentage of total revenue varied from 7.58 percent to 52.14 percent with a median of 16.09 percent. Non-tax revenues were a more important source of funds for cities in 1977, with the percentage of total revenue arising from non-tax sources ranging from 14.02 percent to 72.39 percent, with a median of 36.41 percent--more than twice the county figure.

Within this total category, the largest component was the enterprise fund revenue for cities. The median figure was 24.20 percent for cities. For counties, the other miscellaneous revenues was the largest component, with a median figure of 9.85 percent, compared to just 2.87 percent for median enterprise fund revenue.

The growth of non-tax revenues was much more dramatic in counties, with the 1970-1977 real per capita median growth rate being 5.08 percent per year. The same figure for cities was just .93 percent. The principal reasons for the growth, as well as the large proportion of revenues derived from these sources is based on two factors:

- the increasing use of revenue-generating quasi-businesses to assist the general revenue efforts of the cities and counties.
- the constant revenue pressure on local governments lead them to implement a variety of different user charges to offset increased costs of service.

Both service charges and enterprise activities are "good" charges for local governments. This is primarily due to the direct relationship of the cost to the service being rendered. Also, service charges have modest collection costs, and can usually be adjusted with a minimum of effort or negative impact.

In a period of substantial concern over tax burdens and the general level of taxation in the community, emphasis should be placed on service charges and enterprise activities where a definitive service/cost relationship is present. In this way, some of the negative impacts on revenue of various tax reduction proposals can be minimized.

Any discussion of the specific new forms of service charges or enterprise activities would be conjecture. These service charges could be limited only by the imagination of a planner, the aggressiveness of the collection, and the perception of the public of receiving their money's worth.

#### Trends in Enterprise Fund Revenues

Many of the local governments, either by chance or design, operate businesses which closely parallel private business enterprises. These vary from utilities for gas and electricity to telephones. Several governments also operate quasi-private entities such as airports. These activities are traditionally accounted for by using enterprise funds, and follow commercial accounting principles.

From an economic analysis standpoint, several problems develop:

- Inclusion of revenues or expenditures (which are customarily very large) may substantially distort percentage or per capita analysis of the costs or revenues. A solution to this problem is to include only the net profit or loss of the activity in the governmental analysis.

- the expenses of operation or the profit of the activity may either reduce costs by directly under-writing other governmental expenses, or may cause other costs to be higher than normal. Depending upon the parent government's operating philosophy -- these costs may or may not be allocated back to the enterprise activity.

The current research design has opted for the inclusion of both enterprise revenues and expenditures at their full value. This serves to improve the comparability of financial data between local governments which may offer basically the same services (e.g., Utilities) but not use the enterprise fund accounting. Enterprise fund revenues and expenditures are separated in the data analysis so their impact could be specifically identified.

Enterprise fund revenue was the most important revenue source to cities. The largest dependence was in Fallon, where 65.8 per cent of total 1977 revenue came from water and sewer utility operations. The median city percentage of total revenue was 24.20 percent or about one-fourth of all city revenue sources in 1977. These percentages varied only slightly from 1970, when the median was 23.70 percent, and the top city was Fallon, with 76.40 percent of its revenue coming from enterprise activities.

Enterprise revenue has been a constant source of revenue for cities, and as the 1970-1977 median per capita real growth rate of 0.13 percent would indicate--has not changed dramatically during our research period.

Counties derive much less of their revenue from enterprise funds. The median percentage of total revenue was only 0.84 per cent in 1970, and rose to 2.87 per cent in 1977. The highest county percentage in both years was Churchill, which derived 57.40 percent of county revenue in 1970 and 47.92 percent in 1977 from its telephone system.



TABLE 3-14

## ENTERPRISE REVENUES

## CITIES:

Real per capita Dollars			
1970		1977	
Caliente	0.00	Caliente	0.00
Gabbs	5.20	Gabbs	1.81
Winnemucca	17.91	Las Vegas	15.80
Las Vegas	19.21	Winnemucca	17.56
Ely	34.41	Yerington	35.72
Reno	34.84	Elko	37.01
Sparks	39.75	Ely	43.64
Yerington	41.76	Reno	45.08
Median	46.09	Median	47.51
Henderson	50.42	Sparks	49.94
Elko	53.82	Henderson	52.94
Wells	62.63	Lovelock	53.92
Lovelock	68.09	N.L. Vegas	58.81
N.L. Vegas	95.65	Wells	80.54
Boulder City	147.87	Boulder City	186.80
Carlin	193.85	Carlin	197.45
Fallon	221.46	Fallon	240.14
Mean	67.93	Mean	69.82

## COUNTIES:

Real per capita Dollars			
1970		1977	
Elko	0.00	Humboldt	0.00
Esmeralda	0.00	Washoe	0.00
Lander	0.00	Pershing	1.31
Lincoln	0.00	Elko	1.50
Lyon	0.00	Douglas	2.03
Storey	0.00	Lander	5.20
Washoe	0.00	Lyon	5.52
Douglas	1.98	White Pine	7.21
Median	2.01	Median	13.02
Pershing	2.01	Esmeralda	13.02
Mineral	2.98	Eureka	19.93
Humboldt	4.27	Nye	23.06
Clark	5.81	Clark	29.31
Eureka	9.48	Lincoln	30.49
Carson City	13.81	Storey	38.38
White Pine	16.72	Carson City	42.42
Nye	43.66	Mineral	45.79
Churchill	170.78	Churchill	122.46
Mean	15.97	Mean	22.80

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

Gabbs	-15.30
N.L. Vegas	-6.95
Elko	-5.35
Lovelock	-3.33
Las Vegas	-2.79
Yerington	-2.23
Winnemucca	-2.28
Caliente	0.00
Median	.13
Carlin	.26
Henderson	.69
Fallon	1.16
Sparks	3.26
Boulder City	3.34
Ely	3.39
Wells	3.59
Reno	3.68
Mean	-1.05

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

White Pine	-12.02
Nye	-9.12
Pershing	-6.10
Churchill	-4.75
Elko	0.00
Esmeralda	0.00
Humboldt	0.00
Lander	0.00
Median	0.00
Lincoln	0.00
Lyon	0.00
Storey	0.00
Washoe	0.00
Douglas	.37
Eureka	10.61
Carson City	16.03
Clark	23.13
Mineral	39.03
Mean	3.36

Percentage of Total Revenues  
1970 1977

Caliente	0.00	Caliente	0.00
Gabbs	5.18	Gabbs	1.67
Winnemucca	9.95	Las Vegas	7.83
Las Vegas	10.20	Winnemucca	9.17
Reno	14.22	Reno	15.62
Sparks	16.37	Elko	16.86
N.L. Vegas	22.37	Wells	21.72
Wells	22.89	N.L. Vegas	23.96
Median	23.70	Median	24.20
Elko	24.52	Henderson	24.43
Henderson	26.91	Sparks	24.64
Yerington	27.64	Yerington	27.76
Ely	27.71	Lovelock	30.18
Boulder City	28.13	Ely	34.21
Lovelock	34.23	Boulder City	46.14
Carlin	64.61	Carlin	57.39
Fallon	67.40	Fallon	65.58
Mean	25.15	Mean	25.45

Percentage of Total Revenues  
1970 1977

Elko	0.00	Humboldt	0.00
Esmeralda	0.00	Washoe	0.00
Lander	0.00	Pershing	.35
Lincoln	0.00	Douglas	.64
Lyon	0.00	Elko	.94
Storey	0.00	Lander	1.53
Washoe	0.00	Esmeralda	2.53
Pershing	.83	Lyon	2.82
Median	.84	Median	2.87
Douglas	.84	White Pine	2.87
Eureka	1.54	Eureka	3.68
Mineral	1.92	Nye	6.24
Humboldt	2.81	Storey	8.86
Clark	3.70	Lincoln	9.97
Carson City	3.84	Clark	12.78
White Pine	5.67	Mineral	17.27
Nye	9.57	Carson City	19.49
Churchill	57.40	Churchill	47.92
Mean	5.18	Mean	8.11

The small percentage of county total revenue is also matched by a virtual no growth situation in the 1970-77 real per capita growth rate. The median figure was a 0 percent or no growth situation.

#### Trends in Other Miscellaneous Revenue

This category of revenue includes as many as seven minor categories. These classes include fees and charges for service, miscellaneous fees imposed, franchise fees for rights to operate, and revenues from sales of goods and materials.

The percentage of miscellaneous revenues to total revenue for cities in 1977 had a median of 13.76 percent, while counties had a median of 9.85 percent. This source of revenue appears to be of about equal importance to cities and counties. This percentage had varied slightly from 1970, when the city median was 10.82 percent and the county median was 9.77 percent of total revenue.

When the 1970 to 1977 trend was examined, the city median growth rate in real per capita dollars was 4.75 per year, while the counties had a zero median growth rate.

Individual growth rates of significance were in Boulder City and Pershing County, which had annual growth rates of 12.88 percent and 23.37 percent respectively. The Boulder City increase is a result of an aggressive land sales program.

Certain general conclusions can be drawn from these statistics. First, city miscellaneous revenues seem to be of substantial importance as a revenue source, although not as important as enterprise fund revenues. The relative importance of these revenues has lead the cities to monitor the charges, fees and miscellaneous sources carefully--and the increases have kept up and exceeded population and inflationary growth.

Counties lend similar importance to miscellaneous revenues, and have been able to stay even in the 1970-1977 period.

TABLE 3-15

## OTHER MISCELLANEOUS REVENUE

## CITIES

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970	1977		
Ely	8.22	Ely	9.20	No. Las Vegas	-21.95	Carlin	3.88	Fallon	6.81
Yerington	9.12	Caliente	10.50	Sparks	-18.95	Fallon	4.33	Carlin	7.15
Gabbs	9.59	Yerington	12.28	Las Vegas	-2.68	Yerington	6.03	Ely	7.21
Caliente	11.32	Lovelock	20.62	Lovelock	-1.23	Boulder City	6.07	No. Las Vegas	9.09
Carlin	11.65	Gabbs	22.19	Caliente	-1.07	Ely	6.62	Yerington	9.54
Fallong	14.23	No. Las Vegas	22.32	Henderson	.86	Gabbs	9.41	Sparks	11.37
Winnemucca	17.89	Sparks	23.05	Ely	1.60	Winnemucca	9.94	Lovelock	11.54
Lovelock	22.48	Carlin	24.58	Yerington	4.25	Elko	10.34	Las Vegas	13.50
Median	22.59	Median	24.77	Median	4.75	Median	10.82	Median	13.76
Elko	22.70	Fallon	24.95	Wells	5.26	Lovelock	11.30	Caliente	14.02
Henderson	28.72	Las Vegas	27.23	Reno	5.36	Wells	14.15	Henderson	14.08
Boulder City	31.89	Winnemucca	30.14	Winnemucca	7.45	Caliente	15.22	Wells	15.08
Las Vegas	32.84	Henderson	30.51	Fallon	8.03	Henderson	15.33	Winnemucca	15.74
Wells	38.71	Elko	40.08	Elko	8.13	Reno	16.34	Elko	18.26
Reno	40.03	Wells	55.92	Carlin	10.67	Las Vegas	17.44	Boulder City	19.40
Sparks	86.84	Reno	58.26	Gabbs	11.99	No. Las Vegas	24.27	Reno	20.19
No. Las Vegas	103.75	Boulder City	78.56	Boulder City	12.88	Sparks	35.77	Gabbs	20.44
Mean	30.62	Mean	30.65	Mean	1.91	Mean	12.90	Mean	13.34

## COUNTIES

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970	1977		
Lyon	8.18	Churchill	11.46	Carson City	-31.92	Eureka	2.78	Storey	3.63
Humboldt	9.20	Lyon	13.67	Storey	-16.90	Lyon	4.32	Churchill	4.48
Clark	9.68	Storey	15.75	Esmeralda	-4.25	Churchill	4.95	Douglas	6.94
Washoe	13.29	Elko	15.94	Elko	-3.98	Humboldt	6.04	Lyon	7.00
Churchill	14.73	Carson City	16.73	Churchill	-3.58	Clark	6.18	Eureka	7.19
Pershing	16.78	Clark	16.96	Nye	-2.90	Pershing	6.90	Clark	7.39
Eureka	17.18	Washoe	21.55	White Pine	-.29	Esmeralda	8.70	Carson City	7.69
Mineral	18.20	Douglas	22.03	Lincoln	-.04	Douglas	9.34	Esmeralda	8.39
Median	21.06	Median	25.70	Medi	-.00	Median	9.77	Median	9.85
Elko	21.06	Humboldt	25.70	Douglas	-.00	Nye	9.77	Nye	9.85
Douglas	22.04	Nye	36.37	Washoe	6.90	Lander	11.54	Elko	10.04
Lander	42.31	Eureka	38.98	Lander	7.22	Mineral	11.72	Humboldt	11.23
Nye	44.56	Esmeralda	43.11	Lyon	7.34	Storey	11.82	Washoe	13.35
Storey	51.42	Mineral	52.81	Clark	8.01	Washoe	11.88	Mineral	19.91
Esmeralda	58.02	Lander	70.15	Eureka	11.70	Elko	15.38	Lander	20.64
Lincoln	70.96	Lincoln	70.77	Humboldt	14.68	Lincoln	17.62	Pershing	22.81
White Pine	97.41	Pershing	86.15	Mineral	15.22	White Pine	33.01	Lincoln	23.14
Carson City	156.28	White Pine	95.44	Pershing	23.37	Carson City	43.46	White Pine	38.00
Mean	39.49	Mean	38.44	Mean	1.80	Mean	12.67	Mean	13.04

TABLE 3-16

TOTAL MISCELLANEOUS REVENUES  
(Enterprise and Miscellaneous Revenues)

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Caliente	11.32	Caliente	10.50	Nor. Las Vegas	-12.85	Gabbs	14.59	Caliente	14.02
Gabbs	14.87	Gabbs	24.00	Sparks	-7.87	Caliente	15.22	Las Vegas	21.33
Winnemucca	35.80	Las Vegas	43.03	Lovelock	-2.78	Winnemucca	19.89	Gabbs	22.10
Ely	42.63	Winnemucca	47.70	Las Vegas	-2.72	Las Vegas	27.65	Winnemucca	24.91
Yerington	50.88	Yerington	48.00	Caliente	-1.07	Reno	30.55	Nor. Las Vegas	33.06
Las Vegas	52.04	Ely	52.83	Yerington	-.83	Yerington	33.67	Elko	35.12
Reno	74.87	Sparks	72.99	Elko	.11	Boulder City	34.20	Reno	35.82
Elko	76.51	Lovelock	74.55	Henderson	.76	Ely	34.33	Sparks	36.00
Median	77.83	Median	75.82	Median	.93	Median	34.59	Median	36.41
Henderson	79.14	Elko	77.10	Carlin	1.11	Elko	34.86	Wells	36.81
Lovelock	90.56	Nor. Las Vegas	81.12	Fallon	1.68	Wells	37.04	Yerington	37.30
Wells	101.34	Henderson	83.44	Ely	3.07	Henderson	42.23	Henderson	38.51
Sparks	126.59	Reno	103.34	Winnemucca	4.10	Lovelock	45.53	Ely	41.42
Boulder City	179.76	Wells	136.46	Wells	4.25	Nor. Las Vegas	46.64	Lovelock	41.72
Nor. Las Vegas	199.40	Carlin	222.04	Reno	4.60	Sparks	52.15	Carlin	64.54
Carlin	205.50	Fallon	265.09	Boulder City	5.56	Carlin	68.49	Boulder City	65.55
Fallon	235.68	Boulder City	265.35	Gabbs	6.84	Fallon	71.72	Fallon	72.39
Mean	98.56	Mean	100.47	Mean	.25	Mean	38.05	Mean	38.79

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Lyon	8.18	Elko	17.44	Carson City	-15.99	Eureka	4.32	Douglas	7.58
Washoe	13.29	Lyon	19.19	Nye	-5.64	Lyon	4.32	Lyon	9.82
Humboldt	13.47	Washoe	21.55	Churchill	-4.65	Pershing	7.73	Eureka	10.87
Clark	15.49	Douglas	24.06	Elko	-2.70	Esmeralda	8.70	Esmeralda	10.93
Pershing	18.78	Humboldt	25.70	White Pine	-1.52	Humboldt	8.85	Elko	10.98
Elko	21.06	Clark	46.27	Esmeralda	-.48	Clark	9.88	Humboldt	11.23
Mineral	21.18	Storey	54.13	Douglas	.03	Douglas	10.18	Storey	12.49
Douglas	24.02	Esmeralda	56.12	Storey	.74	Lander	11.54	Washoe	13.35
Median	26.67	Median	58.90	Median	5.08	Median	11.82	Median	16.09
Eureka	26.67	Eureka	58.90	Lincoln	5.08	Storey	11.82	Nye	16.09
Lander	42.31	Carson City	59.15	Washoe	6.90	Washoe	11.88	Clark	20.17
Storey	51.42	Nye	59.43	Lander	8.24	Mineral	13.64	Lander	22.17
Esmeralda	58.02	Lander	75.34	Humboldt	9.23	Elko	15.38	Pershing	23.16
Lincoln	70.96	Pershing	87.46	Eureka	11.32	Lincoln	17.62	Carson City	27.18
Nye	88.22	Mineral	98.60	Lyon	12.18	Nye	19.33	Lincoln	33.10
White Pine	114.13	Lincoln	101.25	Clark	15.64	White Pine	38.68	Mineral	37.18
Carson City	170.10	White Pine	102.65	Mineral	21.97	Carson City	47.30	White Pine	40.87
Churchill	185.50	Churchill	133.92	Pershing	21.97	Churchill	62.35	Churchill	52.41
Mean	55.46	Mean	61.25	Mean	4.90	Mean	17.85	Mean	21.15

### Trends in Inter-Governmental Grants

In the original data analysis phase of the project, three levels of inter-governmental transfers were identified for both revenues and expenses. They were Federal, State, and Local.

Several problems became immediately obvious. The use of local transfers was intended to serve to track transfers to parallel entities, i.e., City of Reno to Washoe Council of Governments. However, the fund by fund accounting approach also resulted in all inter-fund transfers within the same entity showing up in the local government transfer section. This resulted in double counting of both revenues and expenditures that could have substantially distorted the data.

The study team has reviewed the local transfer data and has eliminated all local transfers. The remaining percentage analysis and per capita figures were modified to reflect this change. Also, certain duplication of expenditures in town funds and some functions such as public safety in Clark County have also been eliminated.

Intergovernmental transfers have become the fastest growing new source of revenue in Nevada in the 1970-77 period. These transfers include transfers from the Federal government to local entities, and from the state government to local entities.

In the 1970-77 period, counties experienced a median growth rate in real per capita intergovernmental transfers of 30.61 per cent per year. For the same period, the cities experienced an average growth rate of 5.36 per cent

During 1977, grants from all sources accounted for a median percentage of total revenues of 8.67 per cent for cities and 13.95 percent for counties. This was a dramatic

change from 1970, when the median percentage of total revenue in total grants was zero for cities and only 1.48 percent for counties.

There is relatively little dispersion around the median for 1977 county data, indicating that most counties receive about the same percentage of their total revenue from grant sources. The city data indicates a wider variation in the amounts of grants and transfers received.

Growth rates of grants in all counties except Lincoln and Storey have been very substantial, while only five cities have had increases in grants. The counties appear to be the prime recipients of these grant funds from the state and federal governments.

#### Trends in State Grants

The state transfers to local governments consist of three types. These are:

1. Flow-through of Federal Grants--where the state acts as a coordination and clearing-house point.
2. Shared Revenues which are legislatively mandated.
3. Specific Purpose Grants.

The state-wide amount of state transfers to local governments is indicated on page 63 (note that certain types of shared revenue such as gas tax are separately categorized and reported under their specific category).

State grants are a negligible source of revenues for cities. The 1977 statewide average was 3/10 of 1 percent. For counties, the average was 2.6 percent. Although the county percentage was much larger than the city percentage, both are relatively small when compared to other revenue categories.

The growth of state transfers in terms of median real per capita revenues have been zero for cities and 6.78 percent per year for counties. Although the aggregate growth rate is higher for cities, the dollar amounts are quite small, with counties receiving much more support from the

TABLE 3-17

## STATE GRANT REVENUES

## CITIES:

Real per capita Dollars			
1970	1977		
Fallon	0.00	Fallon	0.00
Boulder City	0.00	Boulder City	0.00
Henderson	0.00	Nor. Las Vegas	0.00
Las Vegas	0.00	Carlin	0.00
Carlin	0.00	Elko	0.00
Elko	0.00	Wells	0.00
Wells	0.00	Caliente	0.00
Winnemucca	0.00	Yerington	0.00
Median	0.00	Median	0.00
Caliente	0.00	Gabbs	0.00
Yerington	0.00	Lovelock	0.00
Gabbs	0.00	Ely	0.00
Lovelock	0.00	Sparks	.01
Reno	0.00	Henderson	.05
Sparks	0.00	Las Vegas	.15
Nor. Las Vegas	.12	Winnemucca	.65
Ely	11.49	Reno	12.42
Mean	.73	Mean	.83

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

Fallon	0.00
Boulder City	0.00
Henderson	0.00
Las Vegas	0.00
Nor. Las Vegas	0.00
Carlin	0.00
Elko	0.00
Wells	0.00
Median	0.00
Winnemucca	0.00
Caliente	0.00
Yerington	0.00
Gabbs	0.00
Lovelock	0.00
Reno	0.00
Sparks	0.00
Ely	0.00
Mean	0.00

Percentage of Total Revenues  
1970 1977

Fallon	0.00	Fallon	0.00
Boulder City	0.00	Boulder City	0.00
Henderson	0.00	Nor. Las Vegas	0.00
Las Vegas	0.00	Carlin	0.00
Carlin	0.00	Elko	0.00
Elko	0.00	Wells	0.00
Wells	0.00	Caliente	0.00
Winnemucca	0.00	Yerington	0.00
Median	0.00	Median	0.00
Caliente	0.00	Gabbs	0.00
Yerington	0.00	Lovelock	0.00
Gabbs	0.00	Ely	0.00
Lovelock	0.00	Sparks	.01
Reno	0.00	Henderson	.02
Sparks	0.00	Las Vegas	.08
Nor. Las Vegas	.03	Winnemucca	.34
Ely	9.26	Reno	4.31
Mean	.58	Mean	.30

## COUNTIES:

Real per capita Dollars			
1970	1977		
Douglas	0.00	Douglas	0.00
Esmeralda	0.00	Esmeralda	0.00
Storey	0.00	Lander	0.00
White Pine	0.00	Lyon	.30
Nye	.03	Mineral	1.00
Lyon	.06	Clark	1.35
Elko	.28	Churchill	1.42
Mineral	.31	Humboldt	1.74
Median	.78	Median	1.80
Clark	.78	Elko	1.80
Churchill	.88	Carson City	3.10
Lander	1.06	White Pine	4.52
Humboldt	2.25	Storey	11.69
Eureka	3.02	Nye	12.19
Washoe	4.99	Washoe	13.00
Pershing	6.48	Pershing	21.65
Carson City	11.91	Lincoln	34.88
Lincoln	24.40	Eureka	35.72
Mean	3.32	Mean	8.49

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

Carson City	-19.21
Humboldt	-3.73
Douglas	0.00
Esmeralda	0.00
Lander	0.00
Storey	0.00
White Pine	0.00
Lincoln	5.11
Median	6.78
Churchill	6.78
Clark	7.75
Washoe	13.68
Mineral	16.84
Pershing	17.22
Lyon	22.55
Elko	26.45
Eureka	35.28
Nye	87.55
Mean	12.72

Percentage of Total Revenues  
1970 1977

Douglas	0.00	Douglas	0.00
Esmeralda	0.00	Esmeralda	0.00
Storey	0.00	Lander	0.00
White Pine	0.00	Lyon	.15
Nye	.01	Mineral	.38
Lyon	.03	Churchill	.55
Mineral	.20	Clark	.59
Elko	.21	Humboldt	.76
Median	.29	Median	1.13
Lander	.29	Elko	1.13
Churchill	.30	Carson City	1.43
Eureka	.49	White Pine	1.80
Clark	.50	Storey	2.70
Humboldt	1.48	Nye	3.30
Pershing	2.67	Pershing	5.73
Carson City	3.31	Eureka	6.59
Washoe	4.46	Washoe	8.06
Lincoln	6.06	Lincoln	11.40
Mean	1.18	Mean	2.62

state but at a somewhat slower rate of increase.

Finally, the statewide increase of 35 percent for cities is concentrated in a few cities, with the 12 percent statewide increase for counties being more uniformly distributed to all counties. The state fund distribution mechanism seems to be operating more equitably and resulting in larger amounts to counties than to cities.

#### STATE GRANTS 1970 AND 1977

(in 000's)

	<u>Cities</u>	<u>Counties</u>	<u>Total</u>
1970	\$ 61	\$ 898	\$ 959
1977	1,470	4,133	5,603
Annual Growth Rate (real per capita)	35.04%	12.72%	

#### Trends in Federal Grants

Federal transfer to local governments has been the fastest growing category of revenue in the 1970-1977 period. The state-wide amount of federal transfers to local governments is indicated on page 64.

During this period, the relative importance of Federal transfers as a percentage of the statewide total government revenue has increased for cities from 5.11 percent of the total in 1970 to 9.28 percent of the total revenue in 1977. Counties have experienced a more dramatic increase, with the federal transfers comprising only 1.66 percent of the total in 1970 and some 14.49 percent of the total revenue in 1977.



TABLE 3-18

## FEDERAL GRANT REVENUES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Fallon	0.00	Gabbs	4.36	Boulder City	-38.98	Fallon	0.00	Boulder City	3.49
Henderson	0.00	Caliente	6.43	Reno	-3.10	Henderson	0.00	Carlin	3.67
Las Vegas	0.00	Henderson	10.82	Fallon	0.00	Las Vegas	0.00	Gabbs	4.02
Carlin	0.00	Reno	12.13	Henderson	0.00	Carlin	0.00	Reno	4.20
Elko	0.00	Carlin	12.62	Las Vegas	0.00	Elko	0.00	Henderson	4.99
Wells	0.00	Lovelock	13.52	Carlin	0.00	Wells	0.00	Fallon	6.73
Caliente	0.00	Boulder City	14.12	Elko	0.00	Caliente	0.00	Lovelock	7.57
Gabbs	0.00	Yerington	14.43	Wells	0.00	Gabbs	0.00	Caliente	8.58
Median	0.00	Median	16.08	Median	0.00	Median	0.00	Median	8.67
Lovelock	0.00	Sparks	17.74	Caliente	0.00	Lovelock	0.00	Sparks	8.75
Yerington	.21	Ely	19.21	Gabbs	0.00	Yerington	.14	Las Vegas	10.22
Sparks	.91	Las Vegas	20.63	Lovelock	0.00	Sparks	.37	Yerington	11.21
Winnemucca	9.99	Fallon	24.66	Ely	4.13	Winnemucca	5.55	Elko	11.58
Ely	14.39	Elko	25.42	Nor.Las Vegas	4.17	Reno	6.15	Wells	13.09
Reno	15.07	Winnemucca	27.48	Winnemucca	14.45	Nor.Las Vegas	9.22	Winnemucca	14.35
Nor.Las Vegas	39.44	Wells	48.55	Sparks	42.46	Ely	11.59	Ely	15.06
Boulder City	216.19	Nor.Las Vegas	52.79	Yerington	60.60	Boulder City	41.13	Nor.Las Vegas	21.51
Mean	18.51	Mean	20.31	Mean	5.23	Mean	4.63	Mean	9.31

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Humboldt	0.00	Lincoln	2.06	Lincoln	-58.71	Humboldt	0.00	Lincoln	.67
Lander	0.00	Churchill	11.31	Humboldt	0.00	Lander	0.00	Storey	2.78
Pershing	0.00	Storey	12.06	Lander	0.00	Pershing	0.00	Esmeralda	3.29
Storey	0.00	Washoe	16.01	Pershing	0.00	Storey	0.00	Churchill	4.43
Washoe	0.00	Esmeralda	16.91	Storey	0.00	Washoe	0.00	Pershing	5.55
Lyon	.25	Elko	20.34	Washoe	0.00	Lyon	.13	Douglas	7.96
Churchill	.40	Pershing	20.97	White Pine	8.33	Churchill	.14	Mineral	9.28
Elko	.43	Mineral	24.61	Carson City	17.35	Douglas	.28	Washoe	9.92
Median	.66	Median	25.26	Median	23.38	Median	.32	Median	10.28
Douglas	.66	Douglas	25.26	Nye	23.38	Elko	.32	Eureka	10.28
Mineral	.78	Carson City	27.83	Eureka	28.26	Esmeralda	.34	Lander	10.95
Clark	2.19	Lyon	33.92	Esmeralda	28.84	Mineral	.51	Carson City	12.79
Esmeralda	2.25	Lander	37.22	Clark	41.25	Eureka	1.25	Elko	12.82
Eureka	7.70	Clark	39.37	Churchill	47.58	Clark	1.40	Nye	13.72
Carson City	8.26	White Pine	40.80	Mineral	49.22	Nye	2.16	White Pine	16.24
Nye	9.86	Humboldt	44.87	Douglas	52.07	Carson City	2.30	Clark	17.17
White Pine	22.76	Nye	50.66	Elko	54.95	White Pine	7.71	Lyon	17.36
Lincoln	125.58	Eureka	55.69	Lyon	69.91	Lincoln	31.18	Humboldt	19.60
Mean	10.66	Mean	28.23	Mean	21.32	Mean	2.81	Mean	10.28

TABLE 3-19

## TOTAL GRANT REVENUE

## CITIES

Real per capita Dollars			Annual Growth Rate/Real per capita Dollars			Percentage of Total Revenues			
1970		1977	1970 to 1977			1970		1977	
Fallon	0.00	Gabbs	4.36	Boulder City	-38.98	Fallon	0.00	Boulder City	3.49
Henderson	0.00	Caliente	6.43	Ely	-4.26	Henderson	0.00	Carlin	3.67
Las Vegas	0.00	Henderson	10.87	Fallon	0.00	Las Vegas	0.00	Gabbs	4.02
Carlin	0.00	Carlin	12.62	Henderson	0.00	Carlin	0.00	Henderson	5.02
Elko	0.00	Lovelock	13.52	Las Vegas	0.00	Elko	0.00	Fallon	6.73
Wells	0.00	Boulder City	14.12	Carlin	0.00	Wells	0.00	Lovelock	7.57
Caliente	0.00	Yerington	14.43	Elko	0.00	Caliente	0.00	Reno	8.51
Gabbs	0.00	Sparks	17.75	Wells	0.00	Gabbs	0.00	Caliente	8.58
Median	0.00	Median	18.48	Median	0.00	Median	0.00	Median	8.67
Lovelock	0.00	Ely	19.21	Caliente	0.00	Lovelock	0.00	Sparks	8.76
Yerington	.21	Las Vegas	20.78	Gabbs	0.00	Yerington	.14	Las Vegas	10.30
Sparks	.91	Reno	24.55	Lovelock	0.00	Sparks	.37	Yerington	11.21
Winnemucca	9.99	Fallon	24.66	No. Las Vegas	4.12	Winnemucca	5.55	Elko	11.58
Reno	15.07	Elko	25.42	Reno	6.97	Reno	6.15	Wells	13.09
Ely	25.88	Winnemucca	28.13	Winnemucca	14.79	No. Las Vegas	9.25	Winnemucca	14.69
No. Las Vegas	39.56	Wells	48.55	Sparks	42.48	Ely	20.84	Ely	15.06
Boulder City	216.19	No. Las Vegas	52.79	Yerington	60.60	Boulder City	41.13	No. Las Vegas	21.51
Mean	19.24	Mean	21.14	Mean	5.36	Mean	5.21	Mean	9.61

## COUNTIES

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Revenues			
1970		1977		1970 to 1977		1970		1977	
Storey	0.00	Churchill	12.73	Lincoln	-20.02	Storey	0.00	Esmeralda	3.29
Lyon	.32	Esmeralda	16.91	Storey	0.00	Lyon	.17	Churchill	4.98
Douglas	.66	Elko	22.14	Carson City	6.11	Douglas	.28	Storey	5.48
Elko	.72	Storey	23.75	White Pine	9.83	Lander	.29	Douglas	7.96
Lander	1.06	Douglas	25.26	Washoe	25.15	Esmeralda	.34	Mineral	9.66
Mineral	1.09	Mineral	25.61	Nye	26.42	Churchill	.43	Lander	10.95
Churchill	1.29	Washoe	29.01	Pershing	26.90	Elko	.52	Pershing	11.28
Esmeralda	2.25	Carson City	30.94	Esmeralda	28.84	Mineral	.70	Lincoln	12.08
Median	2.25	Median	34.22	Median	30.61	Median	1.48	Median	13.95
Humboldt	2.25	Lyon	34.22	Eureka	30.61	Humboldt	1.48	Elko	13.95
Clark	2.98	Lincoln	36.94	Churchill	32.74	Eureka	1.74	Carson City	14.22
Washoe	4.99	Lander	37.22	Clark	37.37	Clark	1.90	Eureka	16.87
Pershing	6.48	Clark	40.72	Humboldt	43.28	Nye	2.17	Nye	17.02
Nye	9.89	Pershing	42.61	Mineral	45.05	Pershing	2.67	Lyon	17.51
Eureka	10.73	White Pine	45.31	Elko	49.01	Washoe	4.46	Clark	17.75
Carson City	20.17	Humboldt	46.60	Lander	50.88	Carson City	5.61	Washoe	17.98
White Pine	22.76	Nye	62.85	Douglas	52.07	White Pine	7.71	White Pine	18.04
Lincoln	149.98	Eureka	91.40	Lyon	66.91	Lincoln	37.24	Humboldt	20.36
Mean	13.98	Mean	36.72	Mean	30.07	Mean	3.98	Mean	12.90

FEDERAL GRANTS 1970 AND 1977  
(in 000's)

	<u>Cities</u>	<u>Counties</u>	<u>Total</u>
1970	\$ 3,056	\$ 1,095	\$ 4,151
1977	10,979	27,409	38,388
Annual Growth Rate (real per capita)	34.04%	34.65%	

In addition to the growing importance of the federal grants as a percentage of total revenues, the rate of growth of total statewide amounts of federal grants has been very dramatic, with both cities and counties experiencing a 34 percent growth rates per year in real per capita dollars.

The federal grants to counties in 1977 had a median amount of 10.28 percent of the county's total revenue. The cities received a median amount of 8.67 percent of their total revenue from federal grants. These median amounts were 1/3 of 1 percent for counties and zero for cities in 1970.

The larger growth rate for counties has most likely resulted from the advent of federal revenue sharing, which has resulted in larger distributions to counties in Nevada.

The growth rates for counties and cities are fairly widely dispersed, and do not clearly indicate any significant inter-county or inter-city trends.

Trends in Capital Revenues

Capital revenues, including proceeds from bond sales and interest earnings, have accounted for a median of 2.19 percent of the total revenue for cities in 1977, and a median percentage of 2.73 percent for counties for the same year.

TABLE 3-20

## CAPITAL REVENUES

## CITIES:

<u>Real per capita Dollars</u>				<u>Annual Growth Rate/Real</u>		<u>Percentage of Total Revenues</u>			
1970		1977		per capita Dollars 1970 to 1977		1970		1977	
Carlin	0.00	Caliente	0.00	N.L. Vegas	-41.33	Carlin	0.00	Caliente	0.00
Wells	0.00	Ely	.11	Ely	-12.71	Wells	0.00	Ely	.08
Caliente	0.00	Gabbs	.26	Sparks	-5.17	Caliente	0.00	Gabbs	.24
Gabbs	0.00	Lovelock	2.25	Reno	-2.75	Gabbs	0.00	Carlin	.90
Ely	.26	Carlin	3.10	Boulder City	-1.98	Fallon	.11	Lovelock	1.26
Fallon	.35	Yerington	3.48	Carlin	0.00	Ely	.21	Reno	1.91
Yerington	1.11	Elko	4.60	Wells	0.00	Yerington	.73	Elko	2.10
Lovelock	1.48	Sparks	5.30	Caliente	0.00	Lovelock	.74	Fallon	2.14
Median	1.59	Median	5.31	Median	0.00	Median	.85	Median	2.19
Winnemucca	1.71	Las Vegas	5.32	Gabbs	0.00	Winnemucca	.95	N.L. Vegas	2.24
Las Vegas	2.07	N.L. Vegas	5.49	Elko	.08	Las Vegas	1.10	Sparks	2.62
Elko	4.57	Reno	5.51	Henderson	1.59	Elko	2.08	Las Vegas	2.64
Henderson	6.64	Winnemucca	5.89	Lovelock	5.97	Reno	2.72	Yerington	2.70
Reno	6.67	Henderson	7.42	Las Vegas	13.46	Sparks	3.14	Winnemucca	3.08
Sparks	7.62	Fallon	7.85	Yerington	16.35	Henderson	3.54	Henderson	3.42
Boulder City	21.82	Boulder City	19.00	Winnemucca	17.71	Boulder City	4.15	Boulder City	4.69
N.L. Vegas	99.19	Wells	38.20	Fallon	44.33	N.L. Vegas	23.20	Wells	10.30
Mean	9.59	Mean	7.11	Mean	2.22	Mean	2.67	Mean	2.52

## COUNTIES:

<u>Real per capita Dollars</u>				<u>Annual Growth Rate/Real</u>		<u>Percentage of Total Revenues</u>			
1970		1977		per capita Dollars 1970 to 1977		1970		1977	
Lyon	.12	Lyon	1.62	Nye	-30.82	Lyon	.06	Lyon	.83
Pershing	.90	Carson City	4.02	Carson City	-21.76	Pershing	.37	White Pine	1.67
Lincoln	2.05	White Pine	4.19	Elko	-13.38	Lincoln	.51	Eureka	1.68
Douglas	2.75	Elko	5.27	White Pine	-7.43	Esmeralda	.98	Carson City	1.85
Washoe	3.33	Mineral	5.31	Churchill	-1.76	Eureka	1.03	Mineral	2.00
Mineral	4.23	Washoe	6.47	Clark	.24	Douglas	1.16	Pershing	2.08
Lander	4.37	Lincoln	6.85	Mineral	3.25	Lander	1.19	Lincoln	2.24
Humboldt	5.02	Churchill	6.99	Eureka	5.11	Storey	2.26	Esmeralda	2.29
Median	6.36	Median	7.87	Median	8.43	Median	2.39	Median	2.73
Eureka	6.36	Pershing	7.87	Esmeralda	8.43	White Pine	2.39	Churchill	2.73
Esmeralda	6.52	Eureka	9.09	Humboldt	9.05	Churchill	2.66	Elko	3.32
White Pine	7.05	Humboldt	9.45	Washoe	9.50	Mineral	2.72	Lander	3.46
Churchill	7.90	Lander	11.75	Lander	14.12	Washoe	2.97	Nye	3.75
Storey	9.81	Esmeralda	11.76	Lincoln	17.25	Humboldt	3.30	Washoe	4.01
Elko	13.45	Nye	13.84	Storey	17.93	Carson City	5.12	Humboldt	4.13
Carson City	18.42	Douglas	23.60	Douglas	30.74	Elko	9.82	Douglas	7.43
Clark	27.42	Clark	27.88	Pershing	31.03	Clark	17.50	Storey	7.94
Nye	119.64	Storey	34.40	Lyon	37.62	Nye	26.22	Clark	12.16
Mean	14.08	Mean	11.20	Mean	6.42	Mean	4.72	Mean	3.74

The percentage of total revenue was down slightly from a median figure of 9.85 percent for cities in 1970 and down slightly from a median of 2.39 percent for counties in 1970.

In terms of growth over the 1970-1977 period, the median real per capita growth in capital revenue was 8.43 percent per year for counties, and an average of 2.22 percent per year for cities.

In light of relatively stable bond issue revenues, these figures indicate that the interest earnings have become a more important revenue source for both cities and counties. In addition, the growth rates for counties have been more dramatic than for the cities. Individual cases of growth rates have been as high as 44 percent per year however.

The city and county growth rates are widely dispersed and seem to indicate that no unique trends can be identified. However, two factors should be kept in mind:

- most city and county managers have embarked on aggressive money management programs which have increased interest earnings dramatically over the 1970-1977 period.
- the impact of occasional bond sales can result in wide swings in the data, resulting in some distortions.



## Chapter 4

### EXPENDITURE TRENDS

#### Trends in Total Expenditures

One of the reasons our analysis of local programs emphasizes real, per capita expenditures is that many people want to hold the share of output originating in the public sector constant by holding real, per capita government expenditure constant. Real expenditures adjusts for a change in the purchasing power of the revenue flowing to government budgets in the 1970's. Local governments have been subject to inflationary erosions of their budgets in a fashion similar to that of households. Similarly, in order to evaluate trends, we have to adjust for the change in population being served by the government. Ideally, we would like to know more about the population than just size. Density, age composition, and income distribution also affect the demand for programs. Unfortunately, it was not possible for us to undertake the more detailed analysis, but the effects of these variables can be inferred by those familiar with the local area.

Also, because we had to analyze all cities and counties, and since we were mainly concerned with trends, we could not measure qualitative changes in services. With qualitative improvements in the delivery of services, it is possible to maintain output with less expenditure. On the other hand, a decline in expenditures can cause a decline in services, and a shift of costs to the private sector. For example, if spending for street construction and maintenance declines, there will be an increase in travel time to work. If police expenditures do not rise in proportion to population, we might see police shifted from traffic control to crime control. The result could be higher private automobile insurance premiums.

Public finance literature is beginning to recognize that public spending does not exist in a vacuum, but responds to changing conditions in the private sector. Additional residences and business firms in an area mandate

more streets, police, fire control and waste water treatment. At some point it is not feasible to add more of the same old services, but more sophisticated systems must be installed. Examples are traffic systems and secondary or tertiary waste water treatment facilities. Because so much of local government output is services rather than goods, its production tends to be labor-intensive. In many cases, public capital is not labor-saving. Police cars are labor-saving as compared to "foot" policemen, but once we have converted to cars, additional population calls for additional cars and policemen.

On the other hand, there is some minimum population base which is associated with minimum, per capita, expenditures. Several of Nevada's counties are below this population minimum and have very high per capita expenditures for some functions. However, it is not just population size--the rate of change is also critical in determining the need for spending. With these factors in mind, we present the trends in expenditures by function.

Total expenditures less transfers increased at an annual rate of 14.79 percent for counties, but in real, per capita, terms the increase was only 0.84 percent. The largest increases (all real, per capita) were Parks and Recreation, 7.15 percent; Police 2.78 percent; Other Public Safety 3.79 percent; Enterprise 2.68 percent; Other 2.10 percent. The share of the budget increased for Parks and Recreation from 1.89 percent to 2.87 percent; Police from 11.18 percent to 12.04 percent; Other Public Safety from 3.40 percent to 4.05 percent; Enterprise from 4.94 percent to 6.84 percent. The decreasing functions for counties were Social Services 7.76 percent annually, and Public Health 3.15 percent. Public Health declined from 14.10 percent of the budget to 11.09 percent, and Social Services declined from 2.41 percent to 1.77 percent.

City expenditures increased at an annual rate of 9.34 percent, but declined 0.37 percent annually in real, per capita, terms. The largest increases were Police 2.04



TABLE 4-1

## TOTAL EXPENDITURES

## CITIES:

Real per capita Dollars			
1970		1977	
Caliente	91.25	Caliente	70.03
Ely	114.66	Gabbs	114.69
Gabbs	118.08	Ely	126.51
Yerington	162.20	Yerington	150.39
Lovelock	174.33	Elko	179.65
Winnemucca	190.28	Las Vegas	190.30
Las Vegas	192.19	Winnemucca	220.59
Henderson	230.12	Lovelock	223.16
Median	244.44	Median	238.57
Wells	258.75	Sparks	253.98
Carlin	261.91	Reno	263.42
Elko	271.70	Nor.Las Vegas	304.48
Reno	279.23	Henderson	306.53
Sparks	281.28	Carlin	318.59
N.L.Vegas	370.25	Wells	344.00
Fallon	394.36	Fallon	372.50
Boulder City	645.75	Boulder City	405.40
Mean	252.27	Mean	240.26

Annual Growth Rate/Real  
per capita Dollar

1970 to 1977	
Boulder City	-6.65
Elko	-5.91
Caliente	-3.78
Nor.Las Vegas	-2.79
Sparks	-1.46
Yerington	-1.08
Reno	-.83
Fallon	-.81
Median	-.62
Gabbs	-.42
Las Vegas	-.14
Ely	1.40
Winnemucca	2.11
Carlin	2.80
Lovelock	3.53
Wells	4.07
Henderson	4.10
Mean	-.37

## Percentage of Total Expenditures

1970		1977	
Fallon	100.00	Fallon	100.00
Boulder City	100.00	Boulder City	100.00
Henderson	100.00	Henderson	100.00
Las Vegas	100.00	Las Vegas	100.00
Nor.Las Vegas	100.00	Nor.Las Vegas	100.00
Carlin	100.00	Carlin	100.00
Elko	100.00	Elko	100.00
Wells	100.00	Wells	100.00
Median	100.00	Median	100.00
Winnemucca	100.00	Winnemucca	100.00
Caliente	100.00	Caliente	100.00
Yerington	100.00	Yerington	100.00
Gabbs	100.00	Gabbs	100.00
Lovelock	100.00	Lovelock	100.00
Reno	100.00	Reno	100.00
Sparks	100.00	Sparks	100.00
Ely	100.00	Ely	100.00
Mean	100.00	Mean	100.00

## COUNTIES:

Real per capita Dollars			
1970		1977	
Washoe	119.04	Elko	145.37
Lyon	139.86	Washoe	164.69
Humboldt	145.53	Lyon	187.34
Elko	145.61	Churchill	210.41
Clark	149.35	Clark	211.10
Douglas	204.04	Carson City	221.95
Mineral	225.51	Mineral	256.63
White Pine	269.40	White Pine	258.05
Median	293.13	Median	271.26
Lander	293.13	Douglas	271.26
Churchill	312.29	Lincoln	276.80
Carson City	332.89	Humboldt	327.24
Nye	380.67	Pershing	327.89
Lincoln	391.47	Lander	354.10
Pershing	410.47	Nye	434.90
Storey	442.78	Storey	453.50
Eureka	602.81	Esmeralda	491.17
Esmeralda	650.06	Eureka	706.50
Mean	306.76	Mean	311.70

Annual Growth Rate/Real  
per capita Dollar

1970 to 1977	
Carson City	-5.79
Churchill	-5.64
Lincoln	-4.95
Esmeralda	-4.00
Pershing	-3.21
White Pine	-.62
Elko	-.02
Storey	.34
Median	1.85
Mineral	1.85
Nye	1.90
Eureka	2.27
Lander	2.70
Douglas	4.07
Lyon	4.18
Washoe	4.64
Clark	4.94
Humboldt	11.58
Mean	.84

## Percentage of Total Expenditure

1970		1977	
Carson City	100.00	Carson City	100.00
Churchill	100.00	Churchill	100.00
Clark	100.00	Clark	100.00
Douglas	100.00	Douglas	100.00
Elko	100.00	Elko	100.00
Esmeralda	100.00	Esmeralda	100.00
Eureka	100.00	Eureka	100.00
Humboldt	100.00	Humboldt	100.00
Median	100.00	Median	100.00
Lander	100.00	Lander	100.00
Lincoln	100.00	Lincoln	100.00
Lyon	100.00	Lyon	100.00
Mineral	100.00	Mineral	100.00
Nye	100.00	Nye	100.00
Pershing	100.00	Pershing	100.00
Storey	100.00	Storey	100.00
Washoe	100.00	Washoe	100.00
White Pine	100.00	White Pine	100.00
Mean	100.00	Mean	100.00

percent; Parks and Recreation, 1.90 percent; and Other, 3.58 percent. As a percentage of total expenditures, Police increased from 17.25 percent to 20.11 percent; Parks and Recreation increased from 5.70 percent to 6.85 percent; "Other" expenditures increased from 7.06 percent to 13.10 percent. The largest decreases were Highways and Public Works which decreased 7.31 percent annually, and Health at -3.77 percent. Highways, Roads and Public Works decreased from 28.91 percent of total expenditures to 18.08 percent. Health decreased from 0.95 percent to 0.89 percent.

#### Trends in General Administration Expenditures

The median city real, per capita expenditure for general administration purposes was \$21.40 in 1970 and \$25.19 in 1977. The median county was \$40.04 in 1970 and \$51.18 in 1977. There was considerable dispersion around the median, especially in 1970. The low city spent \$7 per capita (Ely) compared to the high of \$50 in Gabbs. This range narrowed in 1977 from \$10 in Elko to \$40 in Reno. For counties in 1970, Churchill spent \$23 per capita compared to \$244 in Esmeralda. In 1977 the low county was Churchill at \$34 and the high was Esmeralda at \$144. In general, medium sized cities and counties had the lowest per capita expenditure and small cities and counties had the highest. We should note, however, that Churchill and Fallon tend to mix general administration expenses with enterprise administrative expenses. Reno had a substantial increase from \$15.31 (second lowest) in 1970 to \$39.57 in 1977; this was the highest city. Part of this is explained by the fact that Reno shifted some expenditure programs into general administration between 1970 and 1977. For example, computer services were shifted to general administration rather than charging these expenses to the department which used them. These types of problems make it difficult to analyze trends and compare jurisdictions.

While median expenditures shifted up, mean expenses were stable for cities and declined for counties in real,

TABLE 4-2

## ADMINISTRATIVE EXPENDITURES

CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Ely	7.42	Elko	9.89	Elko	-9.01	Boulder City	4.68	Elko	5.51
Reno	15.31	Ely	15.57	Gabbs	-7.74	Nor. Las Vegas	4.87	Boulder City	7.09
Las Vegas	15.83	Caliente	16.28	Caliente	-5.22	Reno	5.48	Henderson	7.13
Lovelock	15.96	Lovelock	16.77	Winnemucca	-4.36	Ely	6.47	Lovelock	7.51
Henderson	16.22	Yerington	19.27	Sparks	-4.09	Elko	6.84	Nor. Las Vegas	9.37
Nor. Las Vegas	18.02	Henderson	21.85	Yerington	-8.88	Henderson	7.05	Carlin	9.37
Elko	18.58	Las Vegas	22.51	Fallon	-7.79	Las Vegas	8.23	Fallon	9.37
Yerington	20.50	Sparks	24.18	Boulder City	-7.71	Carlin	8.52	Sparks	9.52
Median	21.40	Median	25.19	Median	-7.39	Median	8.84	Median	9.72
Carlin	22.30	Winnemucca	26.19	Wells	-7.08	Lovelock	9.16	Wells	9.92
Caliente	23.46	Nor. Las Vegas	28.53	Lovelock	-7.00	Fallon	9.36	Las Vegas	11.83
Boulder City	30.20	Boulder City	28.74	Carlin	4.17	Sparks	11.44	Winnemucca	11.87
Sparks	32.19	Gabbs	28.79	Henderson	4.26	Yerington	12.64	Ely	12.31
Wells	34.31	Carlin	29.86	Las Vegas	5.03	Wells	13.26	Yerington	12.82
Winnemucca	35.53	Wells	34.12	Nor. Las Vegas	6.56	Winnemucca	18.67	Reno	15.02
Fallon	36.90	Fallon	34.91	Ely	10.60	Caliente	25.71	Caliente	23.24
Gabbs	49.48	Reno	39.57	Reno	13.56	Gabbs	41.90	Gabbs	25.11
Mean	24.51	Mean	24.81	Mean	.75	Mean	12.14	Mean	11.69

COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Churchill	23.44	Churchill	34.39	Esmeralda	-7.53	Churchill	7.51	Humboldt	13.81
Washoe	31.27	White Pine	36.01	Storey	-6.56	Lincoln	12.57	White Pine	13.95
Clark	31.88	Lyon	39.76	Eureka	-2.87	Carson City	12.55	Churchill	16.34
White Pine	35.93	Clark	40.59	Lyon	-1.53	White Pine	13.34	Eureka	18.02
Elko	38.22	Elko	41.12	Carson City	-7.07	Pershing	14.14	Storey	18.47
Humboldt	40.64	Carson City	41.58	White Pine	.03	Nye	17.93	Carson City	18.73
Carson City	41.79	Washoe	44.90	Mineral	.59	Clark	21.35	Lincoln	18.80
Lyon	44.27	Humboldt	45.20	Elko	1.04	Mineral	21.78	Nye	19.17
Median	48.04	Median	51.18	Median	1.14	Median	23.28	Median	19.23
Lincoln	48.04	Mineral	51.18	Lincoln	1.14	Lander	23.28	Clark	19.23
Mineral	49.12	Lincoln	52.03	Humboldt	1.52	Eureka	25.83	Mineral	19.94
Douglas	56.83	Douglas	65.45	Douglas	2.02	Elko	26.25	Lyon	21.22
Pershing	58.04	Lander	80.57	Lander	2.37	Washoe	26.27	Lander	22.75
Nye	68.24	Nye	83.38	Nye	2.86	Douglas	27.85	Douglas	24.13
Lander	68.25	Storey	83.76	Clark	3.45	Humboldt	27.92	Pershing	26.01
Storey	132.53	Pershing	85.28	Washoe	5.17	Storey	29.93	Washoe	27.26
Eureka	155.73	Eureka	127.34	Churchill	5.47	Lyon	31.65	Elko	28.28
Esmeralda	243.79	Esmeralda	143.89	Pershing	5.50	Esmeralda	37.50	Esmeralda	29.29
Mean	68.71	Mean	64.49	Mean	.74	Mean	22.20	Mean	20.91

per capita terms. The explanation for this is that the upper range was much closer to the median in 1977 than in 1970.

In 1970 the median city spent 8.84 percent of its budget for general administration compared to 9.72 percent in 1977. For counties it was 23.28 percent in 1970 and 19.23 percent in 1977.

It appears that while local government management is becoming more sophisticated, real, per capita expenditures as measured by most indicators are not increasing.

Our data format included judicial expenses in general administration. We separated judicial and found that for both 1970 and 1977 judicial expenses were 25 percent of total general administration for counties and nine percent for cities. For small counties, this ratio can vary tremendously from year to year though the median and the range were virtually constant. Thus, judicial expenditures are growing in proportion to general administration expenses.

#### Trends in Highways, Roads and Public Works Expenditures

Expenditures for highways, roads and public works include most of the major capital expenditures of local governments. These expenditures declined in real, per capita terms between 1970 and 1977. Half of the counties recorded a decline and half showed an increase. The mean annual growth rate for counties was a negative 0.84 percent. Only three cities - Fallon, Wells, and Winnemucca - increased. The mean annual growth rate for cities was a negative 7.31 percent.

The range of real, per capita expenditures was substantial. For cities, the range was \$14.67 in Gabbs, to \$414.72 in Boulder City in 1970. The next highest city to Boulder City was Elko at \$141.43, and the median was \$53.43. In 1977 the range was \$7.55 for Caliente, a median of \$41.06 and a high of \$96.87 in Winnemucca. In 1970 county expenditures ranged from \$14.34 in Washoe to \$214.81 in Eureka with a median of \$68.62. In 1977 the low county was White Pine at

TABLE 4-3

## HIGHWAYS &amp; ROADS EXPENDITURES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Gabbs	14.67	Caliente	7.55	Boulder City	-22.22	Wells	11.71	Lovelock	7.15
Caliente	18.04	Gabbs	9.65	Nor.Las Vegas	-14.71	Gabbs	12.42	Carlin	7.29
Lovelock	27.37	Lovelock	15.96	Elko	-13.89	Fallon	15.18	Gabbs	8.41
Wells	30.30	Ely	17.72	Caliente	-12.45	Lovelock	15.70	Wells	10.45
Ely	33.33	Las Vegas	20.80	Carlin	-10.94	Las Vegas	18.51	Caliente	10.78
Las Vegas	35.58	Carlin	23.22	Reno	-9.25	Carlin	19.07	Las Vegas	10.93
Yerington	43.62	Wells	35.95	Ely	-9.02	Caliente	19.77	Ely	14.01
Carlin	49.95	Yerington	38.74	Lovelock	-7.71	Henderson	24.73	Nor.Las Vegas	14.24
Median	53.43	Median	41.04	Median	-7.69	Median	25.81	Median	14.69
Henderson	56.91	Nor.Las Vegas	43.35	Las Vegas	-7.67	Yerington	26.89	Henderson	15.15
Fallon	59.86	Henderson	46.43	Gabbs	-5.98	Ely	29.07	Fallon	17.43
Winnemucca	78.82	Elko	53.48	Sparks	-5.08	Nor.Las Vegas	32.79	Boulder City	21.60
Sparks	108.14	Reno	59.30	Henderson	-2.91	Sparks	38.45	Reno	22.51
Reno	113.30	Fallon	64.94	Yerington	-1.70	Reno	40.58	Yerington	25.76
Nor.Las Vegas	121.40	Sparks	75.80	Fallon	1.16	Winnemucca	41.42	Elko	29.77
Elko	141.43	Boulder City	87.57	Wells	2.44	Elko	52.05	Sparks	29.84
Boulder City	414.72	Winnemucca	96.87	Winnemucca	2.95	Boulder City	64.22	Winnemucca	43.92
Mean	84.21	Mean	43.58	Mean	-7.31	Mean	28.91	Mean	18.08

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Washoe	14.34	White Pine	30.73	Mineral	-15.03	Washoe	12.05	White Pine	11.91
Douglas	28.60	Elko	30.66	White Pine	-14.48	Churchill	13.48	Mineral	13.38
Clark	32.68	Mineral	34.34	Lincoln	-11.70	Douglas	14.02	Douglas	13.62
Lyon	37.70	Churchill	36.05	Elko	-7.06	Carson City	15.39	Churchill	17.13
Churchill	42.09	Douglas	36.94	Churchill	-2.22	Pershing	16.72	Storey	17.30
Humboldt	42.19	Washoe	47.59	Pershing	-1.96	Esmeralda	18.81	Pershing	18.25
Elko	50.59	Clark	48.67	Esmeralda	-1.64	Storey	19.38	Lander	19.62
Carson City	51.22	Lyon	55.73	Storey	-1.28	Clark	21.88	Elko	21.23
Median	68.62	Median	56.51	Median	-0.82	Median	23.87	Median	22.19
Pershing	68.62	Carson City	56.51	Lander	-0.82	Nye	23.87	Esmeralda	22.19
Lander	73.56	Pershing	59.83	Carson City	1.40	Lander	25.09	Clark	23.06
White Pine	84.72	Lander	69.46	Douglas	3.65	Lyon	26.96	Carson City	25.46
Storey	85.81	Storey	78.44	Eureka	5.52	Humboldt	28.99	Washoe	28.90
Nye	90.87	Lincoln	80.73	Lyon	5.58	White Pine	31.45	Lincoln	29.17
Mineral	98.36	Esmeralda	108.98	Clark	5.69	Elko	34.74	Lyon	29.75
Esmeralda	122.24	Nye	182.71	Nye	9.98	Eureka	35.63	Nye	42.01
Lincoln	183.13	Humboldt	189.84	Washoe	17.14	Mineral	43.61	Eureka	44.73
Eureka	214.81	Eureka	316.04	Humboldt	21.49	Lincoln	46.78	Humboldt	58.01
Mean	77.74	Mean	86.09	Mean	.84	Mean	25.23	Mean	25.63

\$30.73; the high was Eureka at \$316.04, and the median was \$56.51.

Capital expenditures are much more subject to fluctuations than are operating expenses. This is due in part to the ability to postpone capital improvements, but postponement is not elimination. We were not able to examine the relationship between capital and labor for local governments. However, most of the public finance literature suggests that local government capital tends to be complimentary to labor rather than a labor substitute. For example, as population increases there is a need for more roads and more police.

An implication of our findings is that Federal revenues are not allocated to capital projects rather than operating to the extent often suggested by local officials. We would not expect to find a negative growth rate if the sizable increase in federal grants were allocated to capital projects. More research is needed to determine the distribution of grants between capital and operating expenditures.

#### Trends in Public Health Expenditures

Public health is primarily a county function. In 1970 there were four cities with no public health program. The real, per capita, median expenditure was \$0.99 and the highest was \$6.90 in Carlin. By 1977, nine cities reported no health expenditures, and the top was \$11.82 in Wells. The real, per capita, growth rate for cities was a negative 3.77 percent annually, with only one city experiencing a positive growth rate.

The major public health burden falls on counties, and especially on rural counties with under-utilized hospitals. The major burden in these counties is the support of hospitals. In Nevada eight of thirteen county hospitals are operating at a loss. This loss must be reimbursed from the county. The continued operating losses of hospitals can pose a very real threat to the financial stability of certain counties.

TABLE 4-4

## PUBLIC HEALTH EXPENDITURES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Henderson	0.00	Boulder City	0.00	Nor.Las Vegas	-50.58	Henderson	0.00	Boulder City	0.00
Lovelock	0.00	Henderson	0.00	Fallon	-16.89	Lovelock	0.00	Henderson	0.00
Reno	0.00	Las Vegas	0.00	Carlin	-5.61	Reno	0.00	Las Vegas	0.00
Sparks	0.00	Yerington	0.00	Elko	-4.83	Sparks	0.00	Yerington	0.00
Boulder City	.11	Gabbs	0.00	Caliente	-1.61	Boulder City	.02	Gabbs	0.00
Nor.Las Vegas	.22	Lovelock	0.00	Ely	-.35	Nor.Las Vegas	.06	Lovelock	0.00
Yerington	.32	Reno	0.00	Boulder City	0.00	Yerington	.19	Reno	0.00
Gabbs	.79	Sparks	0.00	Henderson	0.00	Fallon	.36	Sparks	0.00
Median	.99	Median	.00	Median	0.00	Median	.49	Median	.00
Las Vegas	1.20	Nor.Las Vegas	.01	Las Vegas	0.00	Las Vegas	.62	Nor.Las Vegas	.00
Fallon	1.43	Fallon	.44	Yerington	0.00	Gabbs	.67	Fallon	.12
Caliente	1.97	Caliente	1.76	Gabbs	0.00	Winnemucca	1.10	Carlin	1.46
Winnemucca	2.09	Elko	2.88	Lovelock	0.00	Elko	1.49	Winnemucca	1.49
Elko	4.04	Winnemucca	3.28	Reno	0.00	Wells	1.82	Elko	1.60
Ely	4.60	Ely	4.49	Sparks	0.00	Caliente	2.16	Caliente	2.51
Wells	4.70	Carlin	4.66	Winnemucca	6.46	Carlin	2.64	Wells	3.44
Carlin	6.90	Wells	11.82	Wells	13.17	Ely	4.02	Ely	3.55
Mean	1.77	Mean	1.83	Mean	-3.77	Mean	.95	Mean	.89

Real per capita Dollars			Annual Growth Rate/Real per capita Dollars			Percentage of Total Expenditure			
1970		1977	1970 to 1977			1970		1977	
COUNTIES:									
Humboldt	2.65	Storey	2.39	Carson City	-45.11	Storey	1.12	Storey	.53
Storey	4.95	Douglas	2.68	Nye	-15.74	Humboldt	1.82	Douglas	.99
Douglas	5.10	Carson City	5.22	Storey	-10.40	Douglas	2.50	Carson City	2.35
Churchill	9.54	Churchill	7.86	Pershing	-9.92	Churchill	3.05	Humboldt	2.59
Elko	12.55	Humboldt	8.47	Douglas	-9.19	Esmeralda	4.04	Churchill	3.74
Mineral	14.82	Elko	10.50	Lincoln	-7.23	Mineral	6.57	Esmeralda	5.85
Clark	16.10	Lyon	13.00	Lyon	-4.61	Elko	8.62	Nye	5.99
Lyon	17.95	Washoe	18.93	Churchill	-2.76	Eureka	8.82	Lyon	6.94
Median	20.88	Median	25.41	Median	-2.55	Median	10.78	Median	7.22
Washoe	20.88	Clark	25.41	Elko	-2.55	Clark	10.78	Elko	7.22
Esmeralda	26.24	Nye	26.06	Washoe	-1.40	Lander	12.81	Eureka	11.40
Lander	37.53	Esmeralda	28.76	Esmeralda	1.31	Lyon	12.83	Washoe	11.49
Eureka	53.17	Lincoln	36.94	White Pine	1.79	Lincoln	15.65	Clark	12.04
Lincoln	61.28	Mineral	49.19	Eureka	5.93	Washoe	17.54	Lincoln	13.34
Nye	78.42	Lander	57.43	Lander	6.08	Nye	20.60	Lander	16.22
White Pine	102.42	Pershing	78.10	Clark	6.52	Carson City	36.88	Mineral	19.17
Carson City	122.76	Eureka	80.54	Humboldt	16.60	White Pine	38.02	Pershing	23.82
Pershing	156.42	White Pine	116.09	Mineral	17.14	Pershing	38.11	White Pine	44.99
Mean	43.69	Mean	33.39	Mean	-3.15	Mean	14.10	Mean	11.10

In 1970, county health expenditures ranged from \$2.65 in Humboldt to \$156.42 in Pershing in real, per capita, dollars. The median expenditure was \$20.88 and the mean was \$43.69. The mean was drawn up by the fact that three counties had over \$100 real, per capita, expenditures. The median was \$25.41 and the mean was \$33.99 in 1977, with only White Pine over \$100 at \$116.09. The median percentage of the budget committed to public health in 1970 was 10.78 percent compared to 7.22 percent in 1977. Three counties used more than one-third of their budget for health in 1970 (Carson City, White Pine and Pershing) compared to one (Humboldt 44.99 percent) in 1977.

These trends are somewhat distorted by the fact that some counties shifted the hospital to a separate, independently audited report between 1970 and 1977. The effect is to reduce the total health expenditures reported by counties but the county responsibility has not been reduced. The forces driving up the hospital costs are still present. The problems are lack of sufficient population to support a hospital, low occupancy rates, few rural physicians, and lack of a full range of medical services in the community.

#### Trends in Social Service Expenditures

Social services other than public health account for a very small proportion of local budgets. Cities do not finance any social services directly, and counties allocated only 2.41 percent in 1970 and 1.77 percent in 1977 to social services. The median real, per capita, expenditure was \$6.58 in 1970 and \$4.18 in 1977. The mean annual growth rate in real, per capita, terms was a negative 7.76 percent. Douglas recorded a substantial growth of 27.40 percent annually. In some cases, the audit reports did not clearly distinguish between public health and social service expenditures. Probably some of the social service expenditures are actually health functions.

#### Trends in Expenditures for Parks and Recreation

The percentage of the budget supporting parks and



TABLE 4-5

## SOCIAL SERVICES EXPENDITURES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Fallon	0.00	Fallon	0.00	Fallon	0.00	Fallon	0.00	Fallon	0.00
Boulder City	0.00	Boulder City	0.00	Boulder City	0.00	Boulder City	0.00	Boulder City	0.00
Henderson	0.00	Henderson	0.00	Henderson	0.00	Henderson	0.00	Henderson	0.00
Las Vegas	0.00	Las Vegas	0.00	Las Vegas	0.00	Las Vegas	0.00	Las Vegas	0.00
Nor.Las Vegas	0.00	Nor.Las Vegas	0.00	Nor.Las Vegas	0.00	Nor.Las Vegas	0.00	Nor.Las Vegas	0.00
Carlin	0.00	Carlin	0.00	Carlin	0.00	Carlin	0.00	Carlin	0.00
Elko	0.00	Elko	0.00	Elko	0.00	Elko	0.00	Elko	0.00
Wells	0.00	Wells	0.00	Wells	0.00	Wells	0.00	Wells	0.00
Median	0.00	Median	0.00	Median	0.00	Median	0.00	Median	0.00
Winnemucca	0.00	Winnemucca	0.00	Winnemucca	0.00	Winnemucca	0.00	Winnemucca	0.00
Caliente	0.00	Caliente	0.00	Caliente	0.00	Caliente	0.00	Caliente	0.00
Yerington	0.00	Yerington	0.00	Yerington	0.00	Yerington	0.00	Yerington	0.00
Gabbs	0.00	Gabbs	0.00	Gabbs	0.00	Gabbs	0.00	Gabbs	0.00
Lovelock	0.00	Lovelock	0.00	Lovelock	0.00	Lovelock	0.00	Lovelock	0.00
Reno	0.00	Reno	0.00	Reno	0.00	Reno	0.00	Reno	0.00
Sparks	0.00	Sparks	0.00	Sparks	0.00	Sparks	0.00	Sparks	0.00
Ely	0.00	Ely	0.00	Ely	0.00	Ely	0.00	Ely	0.00
Mean	0.00	Mean	0.00	Mean	0.00	Mean	0.00	Mean	0.00

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Nye	0.00	Esmeralda	.37	Esmeralda	-58.42	Nye	0.00	Esmeralda	.07
Mineral	.75	Pershing	.38	Pershing	-51.99	Mineral	.33	Pershing	.12
Douglas	1.98	Mineral	1.37	Lincoln	-11.99	Eureka	.76	Mineral	.53
Clark	2.15	Washoe	2.15	Storey	-11.55	Douglas	.97	Eureka	.60
Washoe	3.03	Lyon	2.46	Lyon	-10.53	Lander	1.08	Lander	.73
Lander	3.17	Lander	2.57	Churchill	-9.63	Clark	1.44	Clark	1.22
Eureka	4.56	Clark	2.57	Carson City	-9.47	Carson City	2.10	Washoe	1.31
Lyon	5.13	Carson City	3.61	Washoe	-4.90	Lincoln	2.47	Lyon	1.31
Median	6.58	Median	4.18	Median	-3.74	Median	2.55	Median	1.37
Humboldt	6.58	Lincoln	4.18	White Pine	-3.74	Washoe	2.55	Nye	1.37
Carson City	7.00	Eureka	4.23	Lander	-3.01	Churchill	2.69	Storey	1.44
White Pine	7.46	Churchill	4.28	Eureka	-1.06	White Pine	2.77	Lincoln	1.51
Elko	7.96	White Pine	5.74	Nye	0.00	Storey	3.30	Carson City	1.62
Churchill	8.39	Nye	5.97	Elko	2.45	Esmeralda	3.36	Churchill	2.03
Lincoln	9.67	Storey	6.51	Clark	2.54	Pershing	3.50	White Pine	2.22
Pershing	14.37	Humboldt	8.42	Humboldt	3.53	Lyon	3.67	Humboldt	2.57
Storey	14.61	Elko	9.45	Mineral	8.52	Humboldt	4.52	Douglas	4.96
Esmeralda	21.87	Douglas	13.45	Douglas	27.40	Elko	5.46	Elko	6.50
Mean	6.98	Mean	4.57	Mean	-7.76	Mean	2.41	Mean	1.77

TABLE 4-6

## PARKS AND RECREATION EXPENDITURES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Lovelock	0.00	Lovelock	0.00	Yerington	-13.49	Lovelock	0.00	Lovelock	0.00
Ely	2.04	Yerington	1.15	Caliente	-7.99	Boulder City	1.30	Yerington	.76
Yerington	2.95	Ely	1.63	Reno	-7.63	Ely	1.78	Ely	1.29
Nbr. Las Vegas	7.41	Caliente	4.80	Sparks	-3.79	Yerington	1.82	Fallon	2.18
Fallon	8.08	Sparks	7.50	Ely	-3.23	Nor. Las Vegas	2.00	Sparks	2.95
Caliente	8.39	Fallon	8.13	Las Vegas	-1.24	Fallon	2.05	Reno	3.19
Boulder City	8.42	Reno	8.41	Lovelock	0.00	Carlin	3.35	Nor. Las Vegas	4.20
Carlin	8.78	Nor. Las Vegas	12.79	Fallon	.09	Sparks	3.47	Boulder City	6.23
Median	9.28	Median	14.03	Median	1.06	Median	4.02	Median	6.54
Sparks	9.77	Las Vegas	15.27	Winnemucca	2.03	Elko	4.57	Caliente	6.85
Henderson	11.23	Winnemucca	16.41	Wells	2.91	Henderson	4.88	Carlin	7.04
Gabbs	11.77	Gabbs	17.55	Gabbs	5.71	Reno	5.14	Winnemucca	7.44
Elko	12.43	Elko	20.15	Elko	6.90	Winnemucca	7.48	Las Vegas	8.02
Winnemucca	14.23	Carlin	22.43	Nor. Las Vegas	7.79	Las Vegas	8.66	Henderson	9.31
Reno	14.35	Boulder City	25.26	Henderson	13.32	Caliente	9.20	Elko	11.21
Las Vegas	16.65	Henderson	28.53	Carlin	13.40	Gabbs	9.96	Gabbs	15.30
Wells	66.07	Wells	80.98	Boulder City	15.69	Wells	25.53	Wells	23.54
Mean	12.66	Mean	16.94	Mean	1.90	Mean	5.70	Mean	6.85

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Esmeralda	.55	Humboldt	1.97	Elko	-9.87	Esmeralda	.08	Humboldt	.60
Douglas	1.23	Washoe	2.36	Washoe	-6.99	Douglas	.60	Lincoln	.94
Clark	2.03	Lincoln	2.59	Humboldt	-.97	Pershing	.61	Esmeralda	1.03
Humboldt	2.11	Churchill	2.72	Lincoln	-.45	Lincoln	.68	Lander	1.12
Churchill	2.22	Elko	3.36	Storey	-.35	Churchill	.71	Churchill	1.29
Pershing	2.48	Clark	3.44	Carson City	1.10	Lander	1.01	Washoe	1.43
Lincoln	2.68	Lander	3.97	Lyon	1.29	Eureka	1.26	Clark	1.63
Lander	2.95	Lyon	4.24	Churchill	2.93	Clark	1.36	Eureka	1.78
Median	3.85	Median	5.06	Median	4.25	Median	1.45	Median	2.02
Washoe	3.85	Esmeralda	5.06	Lander	4.25	Humboldt	1.45	Storey	2.02
Lyon	3.88	Pershing	7.01	Nye	5.14	Storey	2.12	Pershing	2.14
Elko	6.71	Storey	9.16	Eureka	7.18	Nye	2.17	Lyon	2.26
White Pine	6.78	Nye	11.84	Clark	7.54	White Pine	2.52	Elko	2.31
Mineral	7.47	Eureka	12.59	Mineral	8.54	Lyon	2.77	Nye	2.72
Eureka	7.62	Carson City	13.01	White Pine	9.95	Washoe	3.23	White Pine	5.27
Nye	8.26	Mineral	13.59	Pershing	14.82	Mineral	3.31	Mineral	5.29
Storey	9.39	White Pine	13.60	Esmeralda	31.75	Carson City	3.62	Carson City	5.86
Carson City	12.04	Douglas	29.99	Douglas	45.63	Elko	4.61	Douglas	11.06
Mean	4.84	Mean	8.27	Mean	7.15	Mean	1.89	Mean	2.87

recreation has increased slightly since 1970 for both counties and cities. In 1970 cities spent 5.70 percent of their budgets for recreation, compared to 6.85 percent in 1977. The respective shares for counties was 1.89 percent in 1970 and 2.87 percent in 1977. Cities spend more in terms of real, per capita dollars than counties. In 1977 the median city spent \$14.03 compared to \$5.06 for counties. However, the real, per capita growth rate was greater for counties. The annual growth rate was 7.15 percent for counties and 1.90 percent for cities. For both cities and counties this was one of the most rapidly growing functions. We were not able to examine the role of user charges in recreation finance. This could be an area for each local entity to explore the desired role of user charge versus tax support for such services as golf courses or swimming pools in the face of a tax cut.

#### Trends in Police Expenditures

Expenditure for police was one of the fastest growing functions for both cities and counties. In real, per capita dollars the mean annual growth rate was 2.04 percent for cities and 2.78 percent for counties. Because it was one of the most rapidly growing functions, the percentage of the budget supporting police also increased. The median city in 1970 used 14.08 percent of its revenues for police compared to 18.39 percent in 1977. The median county used 9.85 percent of its budget for police in 1970 compared to 10.47 percent in 1977. The analysis of the time series data found that police expenditures responded more to population growth than did total expenditures or revenues. Another source of growth for police expenditures is Federal grants tied to law enforcement. For example, state and local governments received \$6.4 million in Law Enforcement Assistance grants in 1977, compared to total police expenditure by local governments in Nevada of \$45.5 million.

The per capita, real dollar expenditure for cities ranged from \$15.42 in Ely to \$54.74 in Las Vegas in 1970.

The range in 1977 for cities was from \$22.48 in Ely to \$68.25 in Wells. In 1970 the range for counties was from \$8.78 in Washoe to \$102.12 in Eureka. For 1977 the range was from \$13.51 in Elko to \$99.04 in Storey.

In general, medium-sized cities and counties, e.g., Ely and Churchill, had the smallest per capita expenditures for police. Sparsely populated counties had the highest per capita expenditures. On the other hand, rapid increase in population (resident or tourist) has been one of the major forces driving up police costs in urbanized areas.

Because of the interest in the Clark-Las Vegas Metropolitan merger, it is interesting to compare the trends of Clark and Las Vegas with Washoe and Reno. Clark maintained the ranking of 7th from the lowest in real, per capita, dollar expenditures between 1970 and 1977, while it declined from 11th to 10th in percentage of the budget to support police. Las Vegas declined from the top (16th) city to 15th in expenditures and from 15th to 14th in percentage of the budget. Washoe moved from the bottom ranking to third from the bottom in expenditure and from 5th to 8th in percentage of the budget. Reno moved from 12th to 14th in expenditure and 9th to 12th in percentage of the budget. The annual real, per capita, growth rates were: Las Vegas 0.54, Clark 3.10, Reno 4.10, and Washoe 9.58. Las Vegas was well below the median growth rates for cities, Clark was just above the median rate for counties, but Reno and Washoe were substantially above the relevant median rates.

Population affects police expenditures in several ways. Local governments with very small populations must impose a very high per capita burden to support a minimal police force. The burden is exacerbated in such counties if the population is spread thinly over a large area. Medium sized cities with a relatively stable population base have the lowest and most stable expenditure for police. Large cities need more sophisticated police systems, but have a more adequate population base to support the system. In addition to the effects of population size and density is the effect of

TABLE 4-7

## POLICE EXPENDITURES

## CITIES:

<u>Real per capita Dollars</u>		<u>Annual Growth Rate/Real</u> <u>per capita Dollars</u>		<u>Percentage of Total Expenditures</u>			
1970	1977	1970 to 1977		1970	1977		
Ely	15.42	Ely	22.48	Boulder City	4.22	Boulder City	6.72
Henderson	26.50	Winnemucca	26.55	Nor.Las Vegas	7.81	Winnemucca	12.03
Boulder City	27.26	Boulder City	27.24	Henderson	11.52	Carlin	12.86
Nor.Las Vegas	28.91	Sparks	33.62	Elko	11.67	Sparks	13.24
Winnemucca	31.55	Yerington	33.69	Fallon	11.96	Fallon	13.33
Gabbs	31.65	Elko	34.17	Sparks	12.12	Henderson	13.55
Elko	31.71	Caliente	36.52	Ely	13.45	Nor.Las Vegas	15.09
Sparks	34.09	Gabbs	38.81	Carlin	13.79	Ely	17.77
Median	34.11	Median	39.89	Median	14.08	Median	18.39
Caliente	34.13	Carlin	40.97	Reno	14.38	Elko	19.02
Yerington	34.63	Henderson	41.54	Winnemucca	16.58	Wells	19.84
Carlin	36.12	Lovelock	44.52	Gabbs	16.99	Lovelock	19.95
Reno	40.14	Nor.Las Vegas	45.96	Yerington	21.35	Reno	20.17
Wells	43.95	Fallon	49.66	Gabbs	26.80	Yerington	22.40
Fallon	47.18	Reno	53.14	Lovelock	27.50	Las Vegas	29.86
Lovelock	47.93	Las Vegas	56.83	Las Vegas	28.48	Gabbs	33.84
Las Vegas	54.74	Wells	68.25	Caliente	37.41	Caliente	52.15
Mean	35.37	Mean	40.87	Mean	17.25	Mean	20.11

## COUNTIES:

Real per capita Dollars		Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditures					
1970	1977	1970 to 1977		1970	1977				
Washoe	8.78	Elko	13.51	Churchill	3.52	Humboldt	6.38		
Churchill	10.99	Churchill	15.14	Esmeralda	-5.11	Pershing	3.92	White Pine	7.05
Elko	11.45	Washoe	17.18	Carson City	-3.35	White Pine	6.14	Churchill	7.20
Humboldt	12.18	White Pine	18.20	Mineral	.78	Lincoln	6.78	Eureka	8.45
Pershing	16.09	Humboldt	20.89	Nye	1.00	Washoe	7.38	Esmeralda	9.10
White Pine	16.53	Carson City	21.79	White Pine	1.37	Elko	7.87	Elko	9.29
Clark	19.21	Clark	23.86	Douglas	2.07	Carson City	8.27	Carson City	9.82
Lyon	21.11	Mineral	26.88	Elko	2.36	Humboldt	8.37	Washoe	10.43
Median	25.45	Median	30.93	Median	2.56	Median	9.85	Median	10.47
Mineral	25.45	Lyon	30.93	Lander	2.56	Esmeralda	9.85	Mineral	10.47
Lincoln	26.56	Pershing	38.58	Clark	3.10	Mineral	11.28	Clark	11.30
Carson City	27.54	Lincoln	41.57	Storey	3.95	Clark	12.86	Pershing	11.76
Lander	42.95	Esmeralda	44.71	Churchill	4.58	Nye	13.69	Nye	12.85
Nye	52.11	Lander	51.40	Lyon	5.46	Lander	14.65	Lander	14.51
Douglas	53.95	Nye	55.90	Lincoln	6.40	Lyon	15.09	Lincoln	15.02
Esmeralda	64.01	Eureka	59.72	Humboldt	7.71	Eureka	16.94	Lyon	16.51
Storey	75.14	Douglas	62.36	Washoe	9.58	Storey	16.97	Storey	21.84
Eureka	102.12	Storey	99.04	Pershing	12.49	Douglas	26.44	Douglas	22.99
Mean	34.48	Mean	37.74	Mean	2.78	Mean	11.18	Mean	12.06

population growth on police expenditures. Where there is excess capacity population, growth can be absorbed without additional expenditure, resulting in a decline in per capita expenditure. But in the most rapidly growing urban areas of Nevada, police expenditures have grown more rapidly than population. This can be seen most clearly in the elasticity analysis of the time-series data presented in a later section of the report. Per capita data in these areas must be interpreted with care, since tourist populations are not included. The results in Clark County and Carson City compared to Washoe suggest that consolidation can contribute to a slower rate of increase in relevant metropolitan areas.

#### Trends in Public Safety Expenditures

Public Safety includes fire protection, animal control, and building inspection, and operating expense for sanitation. The mean percentage of the budget allocated to public safety functions for cities was 7.44 percent in 1970 and 8.00 percent in 1977. For counties the share was 3.48 percent in 1970 and 4.05 percent in 1977.

About half the cities and counties recorded a decline in real, per capita, expenditures for public safety between 1970 and 1977. The mean annual growth rate for cities was nearly stable. For counties, even though half declined, the mean annual growth rate was 3.79 percent. Humboldt, Lincoln, Lyon, Mineral, and Churchill recorded annual increases of 10 per cent or more to drive up the average. Clark and Washoe, which heavily impact the average, declined.

Public safety tends to be a greater burden on cities than counties, but the increase is greatest in the counties. This might be due in part to more rapid population growth beyond city limits in certain areas. This will obviously be true in the future in such areas as Fernley and the East Carson City area of Lyon County relative to Yerington.

Counties with urban centers, but without incorporated cities, have high per capita public safety expenditures. For example, the two highest counties in 1977 were Storey

TABLE 4-8

## OTHER PUBLIC SAFETY EXPENDITURES

## CITIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollar		Percentage of Total Expenditures			
1970		1977		1970 to 1977		1970		1977	
Carlin	1.68	Carlin	1.58	Yerington	-14.15	Carlin	.64	Carlin	.50
Caliente	3.04	Caliente	3.13	Ely	-6.59	Fallon	2.05	Yerington	2.65
Fallon	8.08	Yerington	3.99	Sparks	-1.98	Caliente	3.34	Fallon	2.72
Winnemucca	8.44	Ely	7.63	Boulder City	-1.58	Boulder City	4.17	Caliente	4.47
Gabbs	9.73	Fallon	10.14	Carlin	-.81	Winnemucca	4.44	Winnemucca	4.86
Yerington	10.75	Winnemucca	10.71	Las Vegas	-.18	Nor.Las Vegas	4.74	Lovelock	5.20
Lovelock	11.67	Lovelock	11.61	Henderson	-.08	Elko	6.55	Boulder City	5.95
Ely	12.11	Gabbs	15.47	Lovelock	-.07	Yerington	6.63	Ely	6.03
Median	14.02	Median	19.20	Median	.16	Median	6.66	Median	6.51
Nor.Las Vegas	17.54	Henderson	22.93	Caliente	.38	Lovelock	6.70	Wells	6.99
Elko	17.79	Sparks	24.00	Wells	.84	Gabbs	8.24	Henderson	7.48
Wells	22.67	Wells	24.04	Reno	2.76	Wells	8.76	Nor.Las Vegas	8.35
Henderson	23.06	Boulder City	24.12	Fallon	3.24	Sparks	9.80	Sparks	9.45
Boulder City	26.94	Elko	24.39	Winnemucca	3.40	Henderson	10.02	Gabbs	13.49
Sparks	27.56	Nor.Las Vegas	25.42	Elko	4.51	Ely	10.56	Elko	13.58
Las Vegas	36.84	Las Vegas	36.38	Nor.Las Vegas	5.30	Reno	13.31	Reno	17.11
Reno	37.16	Reno	45.06	Gabbs	6.63	Las Vegas	19.17	Las Vegas	19.12
Mean	17.19	Mean	18.16	Mean	.10	Mean	7.44	Mean	8.00

## COUNTIES:

Real per capita Dollars				Annual Growth Rate/Real per capita Dollars		Percentage of Total Expenditure			
1970		1977		1970 to 1977		1970		1977	
Eureka	0.00	White Pine	.51	Pershing	-9.15	Eureka	0.00	White Pine	.20
White Pine	.61	Nye	3.05	Carson City	-2.98	White Pine	.23	Eureka	.46
Churchill	1.22	Eureka	3.28	White Pine	-2.58	Churchill	.39	Nye	.70
Nye	2.12	Washoe	3.35	Douglas	-2.46	Nye	.56	Lander	1.28
Lincoln	2.23	Elko	3.53	Lander	-2.34	Lincoln	.57	Lincoln	1.66
Elko	2.62	Churchill	4.10	Washoe	-2.21	Esmeralda	1.31	Churchill	1.95
Washoe	3.91	Lander	4.55	Clark	-.04	Elko	1.80	Washoe	2.04
Humboldt	3.95	Lincoln	4.60	Eureka	0.00	Lander	1.83	Elko	2.43
Median	4.28	Median	8.08	Median	4.26	Median	1.90	Median	2.47
Mineral	4.28	Humboldt	8.08	Elko	4.26	Mineral	1.90	Humboldt	2.47
Lyon	5.23	Mineral	9.70	Nye	5.21	Humboldt	2.72	Esmeralda	2.96
Lander	5.36	Douglas	11.04	Esmeralda	7.67	Washoe	3.29	Mineral	3.78
Esmeralda	8.49	Lyon	11.82	Storey	7.79	Lyon	3.74	Douglas	4.07
Douglas	13.11	Pershing	13.94	Humboldt	10.21	Douglas	6.42	Pershing	4.25
Clark	14.39	Clark	14.34	Lincoln	10.37	Pershing	6.44	Lyon	6.31
Carson City	22.58	Esmeralda	14.52	Lyon	11.65	Carson City	6.78	Clark	6.80
Pershing	26.44	Carson City	18.33	Mineral	11.68	Clark	9.63	Carson City	8.26
Storey	50.89	Storey	87.80	Churchill	17.28	Storey	11.49	Storey	19.36
Mean	9.85	Mean	12.74	Mean	3.79	Mean	3.48	Mean	4.06

(\$87.80) and Carson City (\$18.33) compared to the county median of \$8.08 and the city median of \$18.16. These counties have to provide both urban and rural protection within a single budget.

We can expect public safety expenditures to rise disproportionately with population in rapidly growing urban areas. For example, fire protection must be more sophisticated for high rises than for single floor buildings. Many of the public safety functions are labor-intensive, and will be driven up by the effects of inflation on labor costs. On the other hand, the City of Sparks has paid a great deal of attention to the relationship of growth to the placement of fire stations and response time. This type of planning can avoid the problem of duplication of capital and staff.

Analysis of public safety expenditures is made more difficult because of the creation of independent fire protection districts which are separately funded and audited.

#### Trends in Enterprise Expenditures

As previously explained, in the section on enterprise fund revenues, both the aggregate amounts of enterprise revenues and expenditures are included in their respective categories.

Enterprise fund expenditures play a major role in city expenditures. In 1977, the median enterprise fund expenditure constituted 16.71 percent of total expenditures. For counties, this median expenditures was 3.18 percent in 1977. These percentages were slightly changed from the 1970 median figures of 18.59 percent for cities and 0.47 percent for counties.

In the period 1970-1977, the enterprise fund expenditures indicated a median annual growth rate in real, per capita, dollars of 16.63 percent for counties, and a zero median growth rate for cities. The growth rates for cities are fairly closely clustered around the median, while the county data is more widely dispersed.



TABLE 4-9

## ENTERPRISE ACTIVITY EXPENDITURES

## CITIES:

<u>Real per capita Dollars</u>			
1970		1977	
Caliente	0.00	Caliente	0.00
Gabbs	0.00	Gabbs	2.17
Las Vegas	11.49	Las Vegas	8.30
Winnemucca	12.12	Winnemucca	10.24
Yerington	29.96	Yerington	28.96
Reno	31.05	Elko	29.57
Elko	31.47	Reno	38.30
Ely	33.95	Sparks	41.44
Median	38.71	Median	43.04
Sparks	43.48	Ely	43.64
Wells	48.40	Nor.Las Vegas	51.03
Henderson	50.44	Henderson	51.05
Lovelock	63.46	Lovelock	64.08
Nor.Las Vegas	89.69	Wells	65.89
Boulder City	126.68	Boulder City	144.27
Carlin	135.27	Carlin	179.03
Fallon	227.10	Fallon	204.28
Mean	58.41	Mean	60.20

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

Nor.Las Vegas	-8.06
Las Vegas	-4.64
Winnemucca	-2.40
Fallon	-1.51
Elko	-.89
Sparks	-.68
Yerington	-.49
Caliente	0.00
Median	0.00
Gabbs	0.00
Lovelock	.14
Henderson	.17
Boulder City	1.86
Reno	3.00
Ely	3.91
Carlin	4.00
Wells	4.41
Mean	-.07

Percentage of Total Expenditures

1970		1977	
Caliente	0.00	Caliente	0.00
Gabbs	0.00	Gabbs	1.89
Las Vegas	5.98	Las Vegas	4.36
Winnemucca	6.37	Winnemucca	4.64
Reno	11.12	Reno	14.54
Elko	11.58	Sparks	16.32
Sparks	15.46	Elko	16.46
Yerington	18.47	Henderson	16.65
Median	18.59	Median	16.71
Wells	18.70	Nor.Las Vegas	16.76
Boulder City	19.62	Wells	19.16
Henderson	21.92	Yerington	19.26
Nor.Las Vegas	24.22	Lovelock	28.72
Ely	29.61	Ely	35.29
Lovelock	36.40	Boulder City	35.59
Carlin	51.65	Fallon	54.84
Fallon	57.59	Carlin	56.19
Mean	20.54	Mean	21.29

## COUNTIES:

<u>Real per capita Dollars</u>			
1970		1977	
Elko	0.00	Humboldt	0.00
Esmeralda	0.00	Lander	0.00
Lincoln	0.00	Washoe	0.00
Lyon	0.00	Douglas	.62
Storey	0.00	Elko	.88
Washoe	0.00	Pershing	1.01
White Pine	0.00	Lyon	4.50
Lander	1.29	White Pine	8.21
Median	1.56	Median	16.63
Douglas	1.56	Clark	16.63
Pershing	1.93	Eureka	19.39
Mineral	2.84	Nye	24.81
Eureka	4.36	Lincoln	29.61
Humboldt	6.09	Carson City	31.97
Clark	6.66	Storey	33.53
Carson City	9.32	Mineral	35.87
Nye	47.69	Esmeralda	41.37
Churchill	176.00	Churchill	82.24
Mean	15.16	Mean	19.45

Annual Growth Rate/Real  
per capita Dollars  
1970 to 1977

Douglas	-13.14
Churchill	-10.87
Nye	-9.34
Pershing	-9.29
Elko	0.00
Esmeralda	0.00
Humboldt	0.00
Lander	0.00
Median	0.00
Lincoln	0.00
Lyon	0.00
Storey	0.00
Washoe	0.00
White Pine	0.00
Clark	13.06
Carson City	17.61
Eureka	21.31
Mineral	36.24
Mean	2.68

Percentage of Total Expenditures

1970		1977	
Elko	0.00	Humboldt	0.00
Esmeralda	0.00	Lander	0.00
Lincoln	0.00	Washoe	0.00
Lyon	0.00	Douglas	.23
Storey	0.00	Pershing	.31
Washoe	0.00	Elko	.61
White Pine	0.00	Lyon	2.40
Lander	.44	Eureka	2.74
Median	.47	Median	3.18
Pershing	.47	White Pine	3.18
Eureka	.72	Nye	5.70
Douglas	.76	Storey	7.39
Mineral	1.26	Clark	7.88
Carson City	2.80	Esmeralda	8.42
Humboldt	4.19	Lincoln	10.70
Clark	4.46	Mineral	13.98
Nye	12.53	Carson City	14.40
Churchill	56.36	Churchill	39.08
Mean	4.94	Mean	6.88

The data indicate that enterprise activities are an important and significant part of the total expenditures for cities, and of somewhat less importance to counties. The rate of growth in expenditures in county operations indicates an increasing amount of enterprise fund activity in counties.

As in enterprise revenues, Churchill county has the highest level of enterprise expenditures, attributable to the telephone utility operations.

The cities of Ely, Carlin, and Wells also report substantial growth in expenditures, primarily for water and sewer utility operations. Fallon has the highest percentage of enterprise expenditures, arising from its water and sewer utility.

#### Trends in Other Expenditures

The category of Other Expenditures includes those items of expenditure which are not otherwise categorized by local government audit reports.

In 1977 these expenditures represented a median value of 11.75 percent of total expenditures for cities, and a median percentage of 13.45 percent for counties. These median percentages have increased from the 1970 figures of 4.80 percent for cities, and decreased from a 1970 figure of 14.79 percent for counties. The 1977 percentages of total expenditures varied from 8.87 percent to 23.77 percent for counties, and from zero to 31.99 percent for cities.

The growth of other expenditures for the 1970-1977 period had a median value of 7.23 percent per year for cities, and 3.18 percent for counties. These growth rates are expressed in real, per capita dollars.

When compared to the total expenditure growth for counties of only 0.87 percent and the decline of 0.37 percent for cities, the growth of Other Expenditures could not be explained as a change in underlying expenditure behavior, but rather the increasing use of the Miscellaneous and Other category to identify expenditures. As aggregate dollar expenditures increase, the Miscellaneous/Other category

TABLE 4-10

## OTHER EXPENDITURES

## CITIES:

<u>Real per capita Dollars</u>				<u>Annual Growth Rate/Real per capita Dollar 1970 to 1977</u>		<u>Percentage of Total Expenditures</u>			
1970		1977				1970		1977	
Gabbs	0.00	Caliente	0.00	Fallon	-96.47	Gabbs	0.00	Caliente	0.00
Carlin	.91	Fallon	.01	Elko	-14.62	Carlin	.35	Fallon	.00
Caliente	2.21	Gabbs	2.25	Reno	-5.02	Fallon	1.45	Gabbs	1.96
Fallon	5.73	Elko	5.12	Caliente	0.00	Boulder City	1.77	Elko	2.85
Ely	5.80	Ely	12.34	Gabbs	0.00	Caliente	2.42	Carlin	5.28
Winnemucca	7.50	Carlin	16.83	Nor.Las Vegas	1.60	Wells	3.23	Wells	6.67
Lovelock	7.93	Reno	19.65	Yerington	3.33	Winnemucca	3.94	Reno	7.46
Wells	8.36	Wells	22.94	Las Vegas	5.98	Lovelock	4.55	Ely	9.75
Median	9.89	Median	23.76	Median	7.28	Median	4.80	Median	11.75
Boulder City	11.42	Yerington	24.59	Sparks	8.57	Ely	5.06	Winnemucca	13.75
Elko	14.24	Las Vegas	30.21	Henderson	10.32	Elko	5.24	Las Vegas	15.87
Yerington	19.48	Winnemucca	30.33	Ely	10.79	Sparks	9.26	Yerington	16.35
Las Vegas	19.87	Sparks	47.44	Wells	14.43	Reno	10.00	Boulder City	16.82
Sparks	26.05	Boulder City	68.20	Winnemucca	19.96	Las Vegas	10.34	Sparks	18.68
Reno	27.92	Lovelock	70.21	Boulder City	25.54	Yerington	12.01	Henderson	30.74
Henderson	45.75	Henderson	94.22	Lovelock	31.16	Henderson	19.88	Lovelock	31.46
Nor.Las Vegas	87.05	Nor.Las Vegas	97.40	Carlin	41.67	Nor.Las Vegas	23.51	Nor.Las Vegas	31.99
Mean	18.14	Mean	33.86	Mean	3.58	Mean	7.06	Mean	13.10

## COUNTIES:

<u>Real per capita Dollars</u>				<u>Annual Growth Rate/Real per capita Dollar 1970 to 1977</u>		<u>Percentage of Total Expenditures</u>			
1970		1977							
Lyon	4.59	Churchill	23.63	Lincoln	-12.95	Lyon	3.28	Lincoln	8.87
White Pine	14.96	Lincoln	24.55	Churchill	-6.93	White Pine	5.55	Nye	9.47
Elko	15.50	Lyon	24.90	Esmeralda	-6.47	Nye	8.66	White Pine	11.22
Mineral	22.43	Washoe	28.23	Pershing	-5.88	Mineral	9.94	Churchill	11.23
Clark	24.25	White Pine	28.96	Storey	-3.90	Eureka	10.03	Storey	11.66
Humboldt	29.14	Carson City	29.95	Carson City	-3.63	Elko	10.65	Eureka	11.80
Nye	32.96	Elko	32.16	Washoe	-2.22	Carson City	11.60	Lyon	13.29
Washoe	32.98	Mineral	34.52	Douglas	2.23	Churchill	12.30	Pershing	13.35
Median	38.40	Median	35.59	Median	3.18	Median	14.79	Median	13.45
Churchill	38.40	Clark	35.59	Nye	3.18	Lincoln	14.79	Mineral	13.45
Carson City	38.63	Nye	41.18	Eureka	4.59	Storey	15.69	Carson City	13.49
Douglas	41.68	Pershing	43.78	Lander	5.30	Pershing	16.10	Humboldt	13.56
Lincoln	57.89	Humboldt	44.38	Clark	5.48	Clark	16.24	Clark	16.86
Lander	58.07	Douglas	48.73	Humboldt	6.01	Lander	19.81	Washoe	17.14
Eureka	60.45	Storey	52.86	Mineral	6.16	Humboldt	20.02	Couglas	17.96
Pershing	66.07	Eureka	83.37	White Pine	9.44	Douglas	20.43	Esmeralda	21.08
Storey	69.46	Lander	84.15	Elko	10.43	Esmeralda	25.05	Elko	22.13
Esmeralda	162.87	Esmeralda	103.52	Lyon	24.16	Washoe	27.70	Lander	23.77
Mean	45.31	Mean	44.97	Mean	2.10	Mean	14.58	Mean	14.73

increases as well. These increases, on a small base, result in a large growth rate, which is not of significance in an operational sense.

#### Debt Trends

The recent default problems of New York City bonds created a national concern about the fiscal health of the local governments; however, such apprehensions are unwarranted for Nevada local governments.

The annual rate of growth of debt in the 1970 to 1977 period has been .27 percent and 1.74 percent for cities and counties, respectively. This slower rate of growth is reversal of the rapid growth over the 1950 to 1959 period, which had been highlighted in the Zubrow report.

Revenue bonds continue to be a more favored form for both cities and counties. Revenue bond growth was positive while the amounts of general obligation bonds outstanding actually declined. Counties have also moved to an increasing use of short-term or emergency loans to finance shorter term projects or capital expansions.

#### Liquidity

In the face of small increases in the bond amounts, the amounts maturing within one year have increased at an even faster rate. This may be a function of shorter maturities and higher coupon interest rates on newer bonds. On overall analysis, the amounts do not appear excessive, and do not pose any problems of redemption or payment for Nevada cities or counties.

There has been an increase in the state-wide tax delinquency rate of about 7 percent per year. The aggregate amounts outstanding are less than 1/4 of 1 percent of the assessed valuation, however. No cities or counties appear to have excessive tax delinquencies.

Finally, bonds outstanding as a percentage of assessed valuation, for the highest city are 17 percent and 10 percent for the highest county. State-wide, the total outstanding

bonds are at 2.69 percent of assessed valuation for all counties, and at 4.02 percent of assessed valuation for all cities.

There appears to be a substantial difference between the amount of bonds outstanding between large and small local government entities. Even when adjusted to size differences, it appears that small cities or counties either do not wish to sell bonds or are unable to do so at competitive rates.



## Chapter 5

## ELASTICITY ANALYSIS AND FORECASTS

An immense amount of time and effort has been devoted to collecting expenditure and revenue data for various local governmental entities in the State of Nevada as part of the local government finance study. This data provides meaningful insight into the fiscal condition of local governmental entities. The data have been made available in two forms: cross-section and time-series data.

The cross-section data represents expenditure and revenue components for each governmental entity at two points in time: 1970 and 1977. Cross-section data is available for both counties and cities. Table 2-1 presents the counties and cities for which detailed expenditure and revenue data have been developed. The cross-section data provides information on the fiscal condition of local governmental entities by comparing expenditures and revenue costs across county or city governments at a point in time.

Several county and city governments were selected for special case-type study. A consistent set of time-series data was developed for each of the case study governmental entities. Time-series data provides information on the expenditure and revenue components for a given governmental entity over time. The time-series data for each case study area cover the period from 1970 through 1977. Table 2-2 presents the case study governmental entities selected which represent both county and city governments.

This section of the study is concerned with establishing and estimating meaningful economic relationships between expenditures, revenues, and other economic variables. Such analysis will provide information about the historical behavior of expenditures and revenues across different governmental entities and over time for a given governmental

entity, provide insight into future fiscal problems faced by local governmental entities, and provide the basis for developing forecasts of expenditures and revenues over time.

The analysis is based on the expenditure and revenue data developed for the Local Government Finance Committee. As with all economic data, the data are subject to errors of one type or another. Appendix B discusses some of the more important sources of error; however, the investigative staff who prepared the local government fiscal data have made every attempt to minimize errors. The data are more than satisfactory to provide meaningful analysis of local government fiscal activity and the broad policy implications drawn from the analysis should be regarded as based on a firm data foundation.

There is one difficulty with the data that should be mentioned at this point. The cross-section data are subject to more problems than the time-series data, chiefly because heterogeneous governmental entities are combined into one group. The wide variety of city and county governments in Nevada makes it difficult to analyze the cross-section data. This problem is absent from the time-series data because, in this case, expenditure and revenue data have been developed for the same entity over the period from 1970 through 1977. The cross-section data were analyzed and the results presented before the Local Government Finance Committee in preliminary reports; however, the results based on the cross-section data are not as reliable as those obtained from the time-series data. Only results based on time-series data will be presented in this final report.

#### Definitions of Expenditure and Revenues Analyzed

Table 5-1 defines the variables and their symbols to be used in the subsequent analysis. Several definitions have been developed to consider the behavior of revenues and/or expenditures from different perspectives. Not all of the categories compiled for the Local Government Finance Committee have been analyzed separately because of questionable



TABLE 5-1: VARIABLES AND VARIABLE DEFINITIONS

Variables	Definition
<u>Expenditures</u>	
1. TE1	Total expenditures defined to include all local governmental expenditure categories: general administration, judicial, highways and roads, health and social services, parks and recreation, police, other public safety, miscellaneous expenditures, grants (local, state, and federal), and enterprise activity.
2. TE2	Total expenditures (TE1) less grants from other governmental entities.
3. TE3	Total expenditures less grants (TE2) less enterprise activity.
4. GA	General administration expenditures are defined to include the following items: public works, buildings and grounds, automobiles, capital outlay, salaries and expenses of administrative and other personnel, and miscellaneous items.
5. POL	Police expenditures includes expenditures for sheriffs and other public safety officials.
<u>Revenues</u>	
1. TR1	Total revenue is defined to include all sources of revenue to the local government: tax revenues, miscellaneous revenues, transfers from other governmental entities (local, state, and federal), enterprise revenue, and capital revenue.
2. TR2	Total revenue (TR1) less transfers from other governmental entities and capital revenue.
3. TR3	Total revenue less transfers and capital revenue (TR2) less enterprise revenue.
4. PT	Property tax revenue
5. GT	Gaming tax revenue
6. CT	Cigarette tax revenue
7. ST	Sales tax revenue
<u>Other Variables</u>	
1. POP	Population of the area relevant to the local governmental entity and made available by the Bureau of Business and Economic Research.
2. PR	Price deflator to measure the cost of goods and services supplied by local governmental entities compiled by the Department of Commerce.

significance to the local governmental entity or, as was more often the case, because of questions about the reliability of the categories.

#### Basic Relationship Between Fiscal Components of the Budget and Population

The limited number of data points prevents the development of detailed models to describe expenditures and revenues for each governmental entity. As a result, simple relationships must be established that can be reasonably estimated with the available data. Population plays a significant role in the fiscal condition of a local governmental entity in the State of Nevada for three reasons:

First, population can be viewed as the "base" which supports revenues to the local government. There should be a close association between revenues from various sources and population.

Second, population also provides the "base" that generates the demand for government goods and services in a given area.

Third, coupled with the two-sided character of population with respect to the fiscal condition of the local government, population has been growing at very rapid rates in several areas of the state. If we could decide on any one single variable to describe the growth of local economies in the State of Nevada, population and changes in population would be of prime importance.

#### Implications Drawn from the Relationship Between Components of the Budget and Population

What type of insights can be obtained from estimating the relationship between population and fiscal components of the budget? Essentially, we are interested in three types of information.

##### 1. Population Elasticity

The response of expenditures and revenues to population can be summarized by an estimate of the population elasticity. Population elasticity is the ratio of the

percentage change in revenue and expenditure to the percentage change in population:

$$\text{Population Elasticity} = \frac{\text{Percentage Change in Expenditure or Revenue Item}}{\text{Percentage Change in Population}}$$

To illustrate the concept, assume that we have obtained an estimate of the population elasticity of total expenditures for a given governmental entity equal to 1.55. This estimate indicates that a one percent increase in population will be associated with a 1.55 percent increase in total expenditures, a two percent increase in population will be associated with a 3.10 percent increase in total expenditures, and so on.

Estimates of population elasticities provide insight into the way revenues and expenditures are likely to change over time in response to changes in the level of population.

## 2. Historical Explanation

The relationship between components of the budget and population should account for the historical behavior of revenues and expenditures over time. That is, can the relationship "explain" most of the variation in revenues and expenditures? It should be pointed out that the existence of a close relationship over time does not "prove" that revenues and expenditures depend on population, but is only consistent with the hypothesized relationship. Statistical analysis can only provide two types of information regarding a hypothesis: (1) the statistical evidence can reject the hypothesis, or (2) the statistical evidence can be consistent with the hypothesis. In no way can we ever regard statistical associations as "proving" a hypothesis.

## 3. Forecasting

Estimation of a stable and statistically meaningful

relationship between fiscal components of the budget and population provides the basis for forecasting beyond the interval of estimation. Estimation of the relationship, for example, over the period from 1970 through 1977 provides the basis for forecasting beyond 1977 if we are willing to make assumption about future population growth. The reliability of the forecast depends on two characteristics of the relationship: (1) Has the relationship accounted for a large part of the variation in revenues and expenditures over the period of estimation--in this case, the period from 1970 through 1977? (2) How reliable are the population forecasts beyond the interval of estimation?

Analysis of Expenditures and Revenues:  
Time-Series Results

The time-series data provide the most reliable basis for gaining insight into the fiscal condition of local governments since we avoid the problem of combining heterogenous entities together by confining the analysis to a time series of expenditures and revenues for one particular governmental entity. Time-series data have been developed for each of the ten case study areas listed in Table 2-2.

Highly significant results are obtained for estimates of the population elasticities of expenditure and revenue reported in Table 5-2. The detailed regression estimates are reported in Appendix C. White Pine County and Ely proved the exception to the finding of high statistical reliability. In both areas, population growth has been slightly negative over the period 1970 through 1977 and the statistical association between expenditures, revenues, and population is either weak or non-existent. In the subsequent analysis, we discard consideration of White Pine County and Ely since they are atypical and small compared to the other eight study areas.

The following points summarize the results for the eight case-study areas:

1. There is a wide range of population elasticity estimates for the eight areas under consideration. For example,

TABLE 5-2 ESTIMATES OF POPULATION ELASTICITIES BASED ON TIME-SERIES DATA OVER THE PERIOD 1970 THROUGH 1977<sup>a</sup>

	Churchill County	Fallon	Clark County	Las Vegas	North Las Vegas	Washoe County	Reno	Sparks
<u>Expenditures</u>								
1. Total expenditures	2.31	1.64	3.80	2.80	4.53	3.73	4.65	2.23
2. Total expenditures less grants	2.10	1.64	3.81	2.90	4.53	3.72	4.63	2.33
3. Total expenditures less grants and enterprise activity	3.57	1.78	3.64	2.89	5.57	3.72	4.39	2.25
4. General administration	6.45	2.24	3.82	4.32	5.62	3.83	10.67	1.76
5. Police	5.43	2.29	3.71	2.91	7.68	5.44	6.16	2.46
<u>Revenues</u>								
1. Total revenue	2.90	2.19	3.96	2.98	- .38	4.22	5.26	2.27
2. Total revenue less transfers and capital revenue	2.55	1.94	3.44	2.53	1.59	3.53	5.20	1.82
3. Total revenue less transfers, \ capital, and enterprise revenue	3.65	1.54	2.98	2.64	1.76	3.53	5.26	1.68
4. Property taxes	2.76	1.82	2.96	2.37	4.77	3.29	7.09	2.27
5. Gaming taxes	1.89	1.36	3.04	2.01	.39	2.08	2.69	1.96
6. Cigarette taxes	.38	-.49	NA	2.62	4.82	NA	.96	.40
7. Sales taxes	NA	NA	NA	4.88	8.09	NA	6.66	NA

<sup>a</sup>See Appendix B for detailed regression estimates.

NA - Not estimated because of insufficient data on cigarette or sales tax revenue.

for Fallon, total expenditures increase 1.64 percent for every one percent increase in population, whereas for North Las Vegas expenditures increase 4.53 percent for every one percent increase in population. There is also considerable variation in the response of revenue to population change.

2. General administration and police have generally responded more to population than total expenditures. For example, in Reno the total expenditure population elasticity is 4.64, while the elasticity for general administration and police is 10.67 and 6.16, respectively.
3. Gaming tax revenues often have lower population elasticity values than total revenue and expenditure. For example, in Las Vegas, the gaming revenue population elasticity is 2.01 while the elasticity is 2.98 and 2.80 for total revenue and expenditure, respectively.
4. Sales tax revenues in those areas that have continually collected sales taxes since 1970 have very high population elasticities. On the other hand, in those areas where cigarette taxes have constituted a source of revenue since 1970, the elasticity of cigarette tax revenue is often statistically insignificant. Thus cigarette tax revenues are insensitive to economic change in a given area, whereas sales tax revenue is sensitive.
5. The gap between locally generated revenue and expenditure is large for several areas, whereas the gap is reversed for the other areas. Locally generated revenue is defined as total revenue less transfers and capital revenue, while the relevant expenditure variable is defined as total expenditure less grants. The specific estimates are as follows:

<u>Elasticity of Expenditures Less Grants</u>		<u>Elasticity of Local Revenue</u>	<u>Difference (TE2-TR2)</u>
Churchill County	2.10	2.55	-.45
Fallon	1.64	1.94	-.30
Clark County	3.81	3.44	+.37
Las Vegas	2.90	2.53	+.37
North Las Vegas	4.53	1.59	+2.94*
Washoe County	3.72	3.53	+.19
Reno	4.63	5.20	-.57
Sparks	2.33	1.82	+.51

\* The estimates for North Las Vegas are not reliable, since there was extreme variation in capital revenue over the 1970 through 1977 period.

The gap refers to the difference in the response to population change between expenditures and locally generated revenue. The difference between the relevant elasticity estimates however, even a small difference, indicates that the gap in levels will grow increasingly over time. The difference in the past has been made up by transfers from other governmental entities. This can be seen by comparing the population elasticity of total expenditures with the population elasticity of total revenue.

#### Further Discussion of the Gap

The gap between the population elasticity of locally generated revenues and expenditures for several of the local governmental entities has important implications for the fiscal condition of local governments. However, before discussing some of these implications, we should be very clear what the gap means and does not mean.

First, the gap has no implication regarding the quality of fiscal management in the local governmental entity. Second, the gap does not mean that local governments are on the verge of bankruptcy and will be forced to engage in deficit financing. Third, the use of the term "gap" is not meant to convey any negative assertions about the productivity of local expenditures.

Now that we understand what the gap does not represent, we can turn to a discussion of the implications to be drawn from the presence of a gap.

First, the gap is a measure of the difference between locally generated tax and other revenues and total expenditures. The gap is positive when the expenditure elasticity with respect to population exceeds the locally generated revenue elasticity with respect to population. This was found to be the case for several local governments.

Second, while the gap does not necessarily indicate fiscal mismanagement at the local level, it does raise serious implications for local government.

The growing dependence of funds generated outside of the economic and political area represented by the local government necessarily implies a corresponding shift of control from the local level to the state and/or federal level of government.

Third, if the excess expenditures over locally generated revenues is not completely reversible and the transfers were reduced or eliminated, local governments would be hard pressed to cover expenditures. To the extent expenditures cannot be reduced to match a decline in transfers, local governments will either be required to borrow more heavily, raise taxes, increase the tax base by adopting new tax revenues, or some combination of these actions.

#### Forecasts of Expenditures and Revenues from 1978 to 1982

Forecasts of expenditures and revenues have obvious importance to local government planning. Developing reasonable forecasts though is often difficult, especially in many Nevada areas, due to the presence of rapid structural change. The estimates of the population-revenue-expenditure relationship provide the basis for developing a set of expenditure and revenue forecasts for each of the case study areas. The estimated relationships express the statistical



association between expenditure and population and revenue and population over the eight year period from 1970 through 1977. The estimated relationships have a high degree of statistical reliability even though the number of degrees of freedom are low. If we are willing to make forecasts of population, these population forecasts then can be combined with the estimated relations to develop forecasts of expenditure and revenue.

Table 5-3 reports the average growth rate of population in each of the ten study areas estimated by regressing population on a time trend over the period from 1970 through 1977. Assuming that these growth rates will characterize population growth beyond 1977 they can be used to develop a set of population forecasts for each area. This was done for the population forecasts for each area. This was done for the period from 1978 through 1982. Combining these forecasted population levels with the estimated relationships for total expenditures and total revenues, forecasts of expenditures and revenues can then be made over the period 1978 through 1982. The relationship between population and time proved highly significant for most of the areas except White Pine County and Ely. In both cases, population has exhibited a slight negative trend and simple regressions with time as the explanatory variable yielded insignificant relationships. Thus no forecasts on the basis of future population levels are made for White Pine County or Ely.

The forecasted values reflect past rates of growth. Growth in expenditures and revenues is greatest in those areas that (1) show a historically high expenditure and revenue population elasticity, and (2) have shown a historically high growth of population. Clark County, Washoe County, and Reno stand out as rapid growth areas for which local expenditures and revenues are forecasted to grow significantly over the period from 1978 to 1982. Appendix D reports the actual and predicted values of total

TABLE 5-3 AVERAGE GROWTH RATES OF POPULATION IN THE  
TEN CASE-STUDY AREAS OVER THE  
PERIOD 1970 THROUGH 1977

Area	Average Growth Rate (Percent/Year)
1. Churchill County	2.73
2. Fallon	5.41
3. Clark County	4.20
4. Las Vegas	3.51
5. North Las Vegas	1.54
6. Washoe County	3.94
7. Reno	2.11
8. Sparks	5.44
9. White Pine County	*
10. Ely	*

\*The regression relationship between population and time over the period 1970-1977 proved insignificant.

expenditures and total revenues over the period from 1970 through 1977 as well as the forecasted values of total expenditures and total revenues over the period from 1978 through 1982.

#### Summary and Implications

The key points of the analysis can be summarized by the following points:

1. A high degree of statistical association exists between nominal expenditures, nominal revenues, and population at the local level in Nevada.
2. Statistics cannot prove causation, but there is a reasonable explanation to support a close association between expenditures, revenues, and population. Population is a two-sided coin with respect to local government fiscal operations. Population provides the base that generates the demand for government goods and services, while at the same time, provides the base from which many revenues are generated.
3. Estimates of various population elasticities indicate that total expenditures often respond more to population growth than locally generated revenues for several entities. In some cases, the existence of a gap implies a growing reliance on state and/or federal sources of funding to balance the budget at the local level.

There are several explanations for the difference in growth of locally generated revenue and expenditures as measured by the positive gap. First, most revenue sources used by local governmental entities are relatively unresponsive to economic growth. This is especially true for county governments since they do not rely on sales taxes to the extent of city governments. Sales taxes, like income taxes, are responsive to economic change since they are automatically adjusted upward with inflation. Many of the revenue sources available to local governments are not particularly responsive to economic change. Second, the expansion

of federal and state mandated programs has often increased local government expenditures without a corresponding increase in local government generated revenues. Third, several of the more rapidly growing areas such as Washoe and Clark Counties are subject to considerable demand for government supplied services resulting from accelerated growth. One cannot read the Reno newspapers for long without realizing the impact the expansion of gaming and population has had on public expenditures, especially general administration and police. Fourth, there is an inherent problem faced by local governmental entities that was the subject of an important paper by William J. Baumol<sup>1</sup> in 1967. Baumol argued that the cost of supplying government goods and services at the local level is likely to expand more rapidly than locally generated revenues. Government expenditures are largely concerned with services and are hence labor intensive. Baumol argued that there is limited opportunity for technological advances to increase the productivity of government expenditures. At the same time, wages and salaries in the government sector are likely to match the general rate of inflation. In fact, another component of the study for the Local Government Finance Committee in Chapters Seven and Eight concludes that wage and salaries of local government employees have been moving at about the same pace as wages and salaries in general. At the same time, locally generated tax revenues are not likely to keep pace with the growth in expenditures to the extent that local governments must rely on relatively unresponsive revenue sources.

4. The evidence cannot establish the extent to which the excess growth of expenditures over locally generated

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<sup>1</sup> W. J. Baumol, "Macroeconomics of Unbalanced Growth," American Economic Review, June 1967, 57: 415-426.

- revenues can be stopped in the event transfers are eliminated. Reasonable arguments can be made that the entire excess is not reversible. To the extent the excess is not reversible, local governments would be faced with the need to generate additional revenues over those in current use.
5. Even if the present pattern of transfers continues, local governments face a growing shift of control to higher levels of government as the transfer revenues increase in importance.
  6. Property taxes and gaming revenues have relatively low population elasticities compared to those estimated for expenditures. The state gaming tax based on gross gaming revenues is responsive to economic change; however, gaming tax revenues allocated to local governmental entities are relatively unresponsive. The local government gaming tax revenues are essentially unit taxes per game and not very responsive to expanded gaming activity. For example, the tax per slot machine is the same whether the slot machine is a nickel or dollar machine.
  7. The relatively low population elasticity of gaming revenues raises an interesting question about the growth process in several local areas (Washoe and Clark Counties) that are currently experiencing rapid economic growth. The major source of this economic and corresponding population growth can be attributed to expansion in the gaming industry. Yet the contribution to revenue at the local level as measured by the gaming tax is much lower than the expenditure elasticities.
  8. Sales tax revenue is very responsive to population growth, whereas unit taxes such as cigarette taxes are not very responsive to population change. Sales tax revenue is based on a percentage of sales revenue and is thus automatically adjusted for increased economic activity. Cigarette taxes are per unit taxes

and based only on the number of units sold and not sales volume.

9. Based on the high correlation between expenditures and revenues, and population, reasonable forecasts of expenditures and revenues can be made over the period from 1978 through 1982. These forecasts are based on assuming a continuation of the historical population growth rate. Forecasting is a difficult undertaking and the results should always be cautiously interpreted; however, the forecasts appear to be reasonable.
10. Considerable attention has been devoted to Proposition 13 in California and the first stage passage of Questions 4 and 6 in Nevada and possible reduction of certain sales taxes. The results of this study bear directly on the general issue of tax reduction. First, there is a substantial difference between California and Nevada. The reduction of property taxes in California will certainly be partly offset by declining expenditures in certain sectors of state and local government; however, the remaining components of the tax structure are relatively responsive to economic change, at least at the state level. Specifically, the sales tax is high in California and California uses a high and progressive income tax structure. Nevada, on the other hand, generally has an unresponsive revenue base, especially at the local level. Local tax reductions will lead to further shifts of fiscal control from the local to state level of government. This will also place the state level of government in a more difficult position since the tax base is not very broad and depends on a low sales tax rate.

## CHAPTER 6

## FISCAL MANAGEMENT RECOMMENDATIONS

One of the objectives of the study of the fiscal health of cities and counties was to identify problems of fiscal management and to make a series of recommendations to resolve those problems.

The previous chapters have outlined the fiscal data and presented analysis and recommendations in each specific revenue, expenditures and debt area. This section presents a series of recommendations directed at the management of the local government. These fiscal management recommendations follow the same three-part categorization as previously mentioned, and conclude with specific recommendations relating to accounting and financial reporting issues, the role of the Nevada Tax Commission, and a recommendation for a more comprehensive study of other local government entities.

State Transfer Formula

The present structure of state transfers for shared revenue is a complex allocation system based on many different bases. There is confusion and a lack of understanding by local governments about the basis for allocation of these funds. The variation in the methods of sharing revenues also results in a lack of uniformity and equity of division. In order to make the allocation system simpler, more easily understood and fair, we would suggest the following:

1. Abandonment of the concept of shared revenues.
2. Establishment of a system of unrestricted grants based on an allocation formula.
3. Continued use of specific project grants.

The establishment of a system of unrestricted grants would reduce and simplify the revenue administration procedures and would allow more flexibility in allocating resources where they are most needed.

The allocation formula could include a local effort component; a tourism and trading area impact population component (to account for costs associated with temporary visitors); a component to consider economic problems or strengths in a community; and a component to consider population, area size, and extent of urbanization. This basic formula could be used for all local government entities.

The use of unrestricted grants would not result in increased state control of local governments, but rather would reduce some of the major inequities, problems and administrative confusion that now exist in the allocation of funds.

#### Federal Grant Management System

Federal grants to local governments have been both a large portion of the city and county budgets, and the fastest growing source of revenues. In spite of the size of this source, there is apparently little knowledge of where funds are coming from (on an agency by agency basis), of where they are going, and how they are being spent.

We recommend that a comprehensive reporting and data collection system be developed to enable local governments to track the flow of federal funds through the state. This would include information regarding the distribution of those funds on a county by county or city by city basis and by type of program or use of the funds.

A second part of this recommendation is to establish some form of statewide cooperative federal relations committee consisting of local government representatives. This group could act to assist and coordinate counties and cities to achieve the maximum amount of beneficial federal funding. Another important aspect of their operation may be to review projects which may be undesirable or excessively expensive to the local entities.

#### Hospital and Health Care Costs

The degree of financial responsibility borne by general county government for hospital operation is a



significant portion of the budget. In 1976, eight of the 13 county hospitals were operating at a loss. This loss must be reimbursed from the county. The continued operating losses of hospitals can pose an indirect but serious threat to the financial stability of the entire county.

The reasons for the operating losses of the hospitals can be described as a complex interrelation of several factors. These include:

1. Lack of sufficient population to support a hospital.
2. Low number of rural physicians.
3. Low occupancy rates.
4. Lack of aggressive management and administration.
5. Lack of full-range medical services in the immediate community.

The State Comprehensive Health Planning Office has prepared numerous studies on the impact of these various factors on hospital cost and the quality of health care delivery. Their recommendations for improving the efficiency of hospital and related health facilities are wide ranging, complex, and oriented to the state's traditional role as a data collecting and planning agency.

We recommend that the state take a much more aggressive role in the operation, funding, and planning of rural hospitals and health care. This role would include placing physicians in rural communities, developing standardized management techniques, encouraging cost reductions, and coordinating the offering of new types of medical services throughout the state. Where necessary, the state might be able to gain concessions from the federal government to allow the closing or reduction in scope of services of uneconomic hospitals.

#### State Salary Limitations

The current provision in state law, which limits salaries to 95 percent of the immediate superior, has a detrimental effect on hiring practices and personnel management of local governments. It results in unusual and even distorted administrative structures, inequities in salaries for comparable

positions, and difficulty in hiring competent and properly trained personnel. In the opinion of the study committee, the limitation should be removed.

#### Public Safety Consolidation

The move to consolidated public safety functions in Clark County was an attempt to provide services while controlling increases in costs. The effectiveness of this action cannot be evaluated within the scope of this study. However, the 1970-1977 expenditure growth rates are informative. The growth rates in real per capita dollars for Clark County and City of Las Vegas are both below the state-wide average increase for expenditures of this function. The Clark County increase is only about one-third the increase in Washoe County, and the Las Vegas increase is only about one-eighth of the increase experienced in Reno--but greater than the increase in Sparks.

There are doubtless many other factors to consider, but in a period of rapidly rising expenditures for public safety, the operation of consolidated entities should be studied for evidence of other possible economies of operation.

Consolidation may provide cost savings in part because of economies of size. An analysis was made to determine if there was any clear evidence or trend toward economies in governmental expenditures. Tables 6-1 and 6-2 indicate the growth rates in real per capita expenditures for counties and cities, categorized by size.

The results are not conclusive, but indicate that cities of larger size seem to have negative growth rates for overall expenditures.

Medium size cities have had some positive and some negative growth rates. This division is important, however, since the negative growth rates were substantial, while the increases were very modest in size.

Small cities have also had some negative and some positive growth rates. In this category the positive growth clearly dominates.

It would appear that cities have been able to secure

TABLE 6-1

Total City Expenditure Growth Rates By  
Size Class For Period 1970-1977

<u>Small Cities (0-3000)</u>	<u>Population</u>	<u>Real Per Capita Growth Rate 1970-1977</u>	
Caliente	1,011	-3.78	
Carlin	1,252		2.80
Gabbs	1,003	- .42	
Lovelock	1,614		3.53
Wells	1,157		4.07
Yerington	2,542	-1.08	
 <u>Medium Cities (3000-25,000)</u>			
Boulder City	6,750	-6.65	
Elko	9,275	-5.91	
Ely	5,854		1.40
Fallon	4,128	- .81	
Henderson	17,764		4.10
Winnemucca	4,325		2.11
 <u>Large Cities (over 25,000)</u>			
Las Vegas	157,031	- .14	
North Las Vegas	40,146	-2.79	
Reno	83,719	- .83	
Sparks	33,953	-1.46	

TABLE 6-2

Total County Expenditure Growth Rates By  
Size Class For Period 1970-1977

<u>Small Counties (0-10,000)</u>	<u>Population</u>	<u>Real Per Capita Growth Rate 1970-1977</u>	
Esmeralda	924	-3.65	
Eureka	1,188		2.27
Humboldt	7,356		11.58
Lander	3,610		2.70
Lincoln	3,046	-4.95	
Mineral	6,504		1.85
Nye	6,774		1.90
Pershing	2,883	-3.21	
Storey	1,161		.34
<u>Medium Counties (10,000-50,000)</u>			
Carson City	28,598	-5.79	
Churchill	12,548	-5.43	
Douglas	11,504		4.07
Elko	15,854	- .02	
Lyon	10,681		4.18
White Pine	9,628	- .62	
<u>Large Counties (over 50,000)</u>			
Clark	355,273		4.94
Washoe	155,036		4.64

some economies--perhaps due to the concentration of their population.

An examination of the expenditure growth rate for counties indicates that negative growth rates have occurred only in medium sized counties and in a few small counties; large counties have had positive rates.

When all counties are considered, small counties and large counties do not appear to be able to control expenditure growth. Medium sized counties present an anomaly, with a virtual split between negative and positive growth rates.

This may in part be explained by the difficulty of providing county services to the growing unincorporated urban areas surrounding the larger cities. These results provide further support for serious consideration of consolidation of selected services.

#### Specific Expenditure Areas

Several recommendations can be made regarding specific cost or expenditure areas, which may be of interest for further study. These are outlined in point form below:

1. Insurance for local governments is extremely expensive. Alternatives such as self-insurance or state-wide insurance pools should be investigated to reduce the costs.
2. Incentive programs should be established to identify cost savings in local governments--and to reward employees or citizens for suggestions.
3. Acquisition of labor-saving devices, including machinery, equipment, and computers should be considered whenever their use can be properly justified.

#### Assessment Restrictions

The current movement toward property tax limitation in the State of Nevada can have a potential limiting effect on the ability of local governments to issue bonds.

Most local governments have specified limits for the total amount of bonded indebtedness, i.e., bonds cannot exceed a certain percentage of the assessed valuation of taxing entity. If proposals for tax reduction call for a reduction of the assessed valuation (for example, Question 6 in the 1978 General Election called for a reduction in assessed value from 1.75 percent to 1 percent), then these reductions can severely limit new issues of bonds. The situation could develop where a technical violation of a city charter or state constitution could occur.

It is suggested than in order to allow reasonable and orderly debt financing, any reductions of assessed valuation which are legislatively mandated be accompanied by relief provisions for local government debt limits.

#### Overlapping Debt Reporting

A second recommendation relating to debt would require the reporting of the overlapping total debt burden in a particular local government entity. This would assure that the aggregate debt burden of an entity would be considered when new bond issues are contemplated.

#### Statewide Bond Bank

When the functions of general government are analyzed (and school debt is excluded), there appears to be a substantial difference in the amount of bonds outstanding between large and small local government entities, even when adjusted for size differences. It appears that small cities or counties either do not wish to sell bonds or are unable to do so at competitive rates. As the requirements for issuance of municipal bonds become more complex, and as the underwriting of bond issues becomes more competitive, the difficulties faced by small issuers of bonds could be dramatic.

We would recommend that a study be made to determine the factors influencing the marketability of local government bonds. To improve the marketability of these bonds, one alternative might be to establish a state-wide bond bank.

This bond bank would sell bonds under the aegis of the entire state, and the individual local governments could then borrow from the central bond bank pool. The state bonds issued could be secured by the full faith and credit of the state or by earmarking certain general fund revenues. Should the state desire, or be financially able, the interest rates charged to local governments could be adjusted. Also, if the state had the surplus funds, it could fund the bond bank or make direct loans to municipalities. This procedure would reduce the overhead costs associated with bond issues and reduce the cost of borrowing to the local governments. The state bond bank would reduce local autonomy with respect to this type of financing. However, the benefits would have to be considered relative to the reduced costs and perceived loss of autonomy.

#### Standardized Financial Reporting

There is a substantial need to collect financial data for local government entities on a uniform basis. A commitment must be made to collect the data on a regular and ongoing basis, and to produce an annual report of the state-wide data.

If this data were readily available, future economic analysis would be simplified and the level of understanding of municipal fiscal affairs in the state would be improved. Since most local government units already have audited financial reports prepared, it would not result in significant additional cost to have such a supplementary report prepared.

It should be stressed that this STANDARD REPORT should contain both financial and non-financial data (such as number of employees) and should be in a form more amenable to economic analysis.

#### Inter-Fund Expense Allocations

In the area of enterprise activities, it was not uncommon to find expenses of a non-enterprise activity

shared by the enterprise fund. This practice creates a problem of data comparability across different entities. With the implementation of a standard financial statement reporting procedure, these problems should be partially eliminated.

#### Role of Nevada Tax Commission

The role of the local government budget division of the Nevada Department of Taxation should be re-examined and, in the judgment of the study group, both significantly changed in nature and expanded. The specific recommendations are outlined below:

1. The staff should be expanded. This expansion would be sufficiently large to create an organization capable of rendering management assistance to local governments to enable them to conduct significant governmental financial management research studies, to establish and maintain a state-wide fiscal data collection system, to improve local government planning, and to expand the current oversight and budgetary review functions.
2. These expanded activities should be organized into a separate state executive-level department separated from the Nevada Department of Taxation. The revenue collection role of the Nevada Department of Taxation is sometimes at odds with the cooperative assistance role which is planned in this new area of municipal affairs.
3. The present role of the advisory committee to the Nevada Department of Taxation on local government matters should be continued.

#### Study of All Local Government Entities

The scope of the current research study consists of only about one-half of the total revenue and expenditure of local government entities in the State of Nevada. School districts and special districts also have a significant impact on local government operations, but were not examined by this study.



A final area of emerging importance which should be studied is that of regional governmental units. These entities can have a very substantial financial and operational impact on the public.

The study group recommends that a comprehensive study of all local government units be conducted in the very near future. Whenever possible, previous studies should be integrated to arrive at a set of comprehensive recommendations for the fiscal health and operations of all local government units.

The results of such a study could have far-ranging implications on the political, administrative, and financial independence of local governments.



## CHAPTER 7

COLLECTIVE BARGAINING AND WAGES IN NEVADA'S  
LOCAL GOVERNMENTSTrends in Public Sector Collective Bargaining

Recent activity in the areas of unionization and collective bargaining for public employees has made public sector labor relations an important topic at all levels of government. The right to join unions and pursue collective bargaining was given to the private sector in the 1930's. Policies of government employers did not deal with unionization of public employees, as it was thought that civil service systems, merit ordinances, and other public personnel practices would govern labor management relations.

Important changes, of course, have taken place in the public sector. In 1962, President Kennedy signed Executive Order 10988 that legitimized unions at the federal level. A Task Force on Employee Management Relations in the Federal Service had been set up by President Kennedy to study the issue, and in his directive to the Task Force and department heads he noted the desirability of allowing employees to join and participate in the activities of employee organizations. Executive Order 10988 gave employees the right to join, or not join, an employee association. It described types of recognition accorded to employee associations, and it noted topics that would be appropriate for discussion -- such as employee grievances and working conditions. The Executive Order did not allow the right to strike, nor did it allow closed or union shops, and it also affirmed the right of Congress to stipulate conditions of employment.

Since then, state and local governments increasingly began to sanction employee associations and unions and provide for collective bargaining. Though Wisconsin allowed such practices in 1959, by 1976, 31 states provided local government coverage. The importance of this issue lies in the fact that far more public employees are employed at the state and local level than the federal level of government -- out of a total of 15 million public employees, recent figures from the Department of Labor note that over 12 million are employed by state and local governments.

#### 1976 Government Employment<sup>1</sup>

14,948,000	Total Government Employees
2,733,000	Federal (excluding Armed Forces)
12,215,000	State and Local Employees

#### 1977 Government Employment (estimated)

15,368,000	Total Government Employees
2,228,000	Federal (excluding Armed Forces)
12,640,000	State and Local Employees

The growth in total number of employees at the state and local government level is significant, as are the increasing numbers of those joining unions. In 1968 employee organization membership totaled about 2.5 million, and by 1975 that figure had increased to 4.7 million, and most of those were employed by local governments. Table 7-1 indicates their area of employment.

TABLE 7-1  
Organized Full-Time Employees,  
Local Government Level, United States, 1975<sup>2</sup>

	Number	Percent
State Governments	1,004,961	21.4
Local Governments	3,697,267	<u>78.6</u>
	Total	100.0
Local Governments		
Counties	507,086	10.6
Municipalities	1,077,500	22.9
Townships	117,529	2.5
Special Districts	110,525	2.3
School Districts	1,884,626	40.1
	Local Government Total	78.6

As is noted in Table 7-1, there is a considerable amount of participation in public unions and associations at the local government level across the nation. However, the extent of employee organization differs among types of local governments. Independent school districts have both the largest number of organized employees and the highest percentage of their numbers in employee associations. Close to 70 percent of teachers in the United States were members of employee associations in 1976. Since teachers account for about one-third of all full-time state and local government employees, their large percentage of organized employees raises the total number of employees in labor organizations. Teachers are followed by municipal employees and then county employees in terms of those belonging to an employee labor organization.

Figures for these groups in the State of Nevada follow in the next section.

#### Local Government Collective Bargaining in Nevada

The State of Nevada, through the Local Government Employee-Management Relations Act of 1969, has enacted legislation that allows employees of local governments and school districts to join or not join employee associations, that prohibits strikes, that describes issues for labor management discussions, and establishes the Local Government Employee-Management Relations Board. In 1971, the Governor's authority over factfinding procedures was expanded by the State Legislature.

Prior to the 1969 legislation, local government employee associations had been active in some areas. One of the first local government associations in the State of Nevada was the Reno Fire Fighters' Association formed in the early 40's and affiliated with the International Association of Fire Fighters and the AFL-CIO. The Clark County and Las Vegas Fire Fighters' Association, after an unsuccessful try in 1953, was formed in 1956. In addition to fire fighters' associations, teachers' groups contributed to the development of labor organizations before 1969 and were involved in a work stoppage in Las Vegas in 1967.

Following the 1969 legislation, police associations and other employees at the municipal level began to form and strengthen employee labor related organizations. Such associations can now be found in Nevada counties, cities, school districts, and special districts. Unionization and collective bargaining activity have increased at the local government level in Nevada so that by 1974 over 50 percent of full-time local government employees belonged to an employee organization. The percentage of local government employees belonging to an employee organization in Nevada was 44.6 in 1972, 52.8 in 1974, and 50.3 in 1975.<sup>3</sup>

Employee organization membership was highest percentage-wise among school district employees in 1974 (65 percent

TABLE 7-2

State and Local Government Organized Employees, by Type of Government <sup>5</sup>  
 October 1972 and October 1974

State and Type of Government	Total Full-time Employment			Full-time Employees Who Belong to an Employee Organization				
	October 1972	October 1974	Percent Change	October 1972		October 1974		Percent change October 1972 to October 1974
				Number	Percent	Number	Percent	
NEVADA								
State Government	7,507	8,329	10.9	3,162	42.1	3,373	40.5	6.7
Local Governments	19,789	20,812	5.2	8,831	44.6	10,985	32.8	24.4
Counties	6,297	7,262	15.3	1,475	23.4	2,408	33.2	63.3
Municipalities	3,783	3,549	-6.2	2,476	65.5	2,290	64.5	-7.5
School Districts	9,142	3,549	2.4	4,821	52.7	6,126	65.5	27.1
Special Districts	567	643	13.4	59	10.4	161	25.0	172.9

TABLE 7-3

State and Local Government Organized Employees, by Type of Government,  
October 1974 and October 1975

State and Type of Government	Total Full-time Employment			Full-time Employees Who Belong to an Employee Organization				
	October 1974	October 1975	Percent Change	October 1974		October 1975		Percent change October 1974 to October 1975
				Number	Percent	Number	Percent	
NEVADA								
State Government	8,329	9,080	9.0	3,373	40.5	3,841	42.3	13.9
Local Governments	20,812	22,114	6.3	10,985	52.8	11,116	50.3	1.7
Counties	7,262	7,586	4.5	2,408	33.2	2,444	32.2	1.5
Municipalities	3,549	3,816	7.5	2,200	64.5	2,457	64.4	7.3
Special Districts	643	755	17.4	161	25.0	159	21.1	-1.2
School Districts	9,358	9,957	6.4	6,126	65.5	6,056	60.8	-1.1



of those employed by districts within the state), but municipal employees accounted for the highest percentage in 1975. Over 64 percent of those employed by municipalities were members of employee associations, while for school district employees this had dropped to 60.8 percent.<sup>4</sup> Tables 7-2 and 7-3 display employee association membership activity in local governments in Nevada from 1972 to 1975.

Relative to other states, considerable employee association and collective bargaining activity takes place at the local government level in the State of Nevada. Nevada ranks eighth in the nation in terms of the percentage of state and local government entities that engage in collective negotiations. Three other western states, Hawaii, California, and Washington, indicate a greater percentage than Nevada. Regionally, both the West and Northwest seem to have more activity, while the South and Southwest indicate less. The figures below show the number and percentage of state and local governments involved in collective negotiations for the ten states with the most collective bargaining activity in 1976:

TABLE 7-4

State and Local Governments that Engaged in Collective Negotiations, 1976 <sup>6</sup> (Selected States)			
State	State and Local Governments (excluding Special Districts)		
	Total	Governments which engage in Collective Negotiations and/or Meet and Confer Discussions	
		Number	Percent
1. Hawaii	5	5	100.0
2. Rhode Island	43	35	81.4
3. Massachusetts	415	339	81.7
4. Connecticut	198	157	79.3
5. California	1,597	1,072	67.1
6. New Jersey	1,116	677	60.7
7. Washington	662	334	50.5
8. NEVADA	51	26	51.0
9. Oregon	621	281	45.2
10. New York	2,535	1,018	43.3

### The Impact of Collective Bargaining on Wages

The rapid growth in recent years of collective bargaining in Nevada's local governments has stimulated considerable interest in the consequences of public sector unionization. In particular, debate over the desirability of unionization, collective bargaining, and the impasse resolution procedures authorized by the Local Government Employee-Management Relations Act is often accompanied by assertions regarding the pay of unionized and non-unionized public employees relative to that of their counterparts in the private sector. This section provides an analysis of the available evidence of the role of unionism in public sector wage determination in Nevada.

Numerous studies have examined the relative earnings of unionized government employees at the national level. Investigators who have studied the effects of collective bargaining and unionization of teachers,<sup>7</sup> firefighters,<sup>8</sup> and other government employee groups,<sup>9</sup> have concluded, in general, that unions have had only a small-to-moderate impact on the salaries of government workers. The size of the estimated wage impacts have generally been less than 10 percent, with some studies even finding no significant impact at all.<sup>10</sup> The size of the impact in the public sector is smaller than the 20-30 percent impact often found in the private sector.<sup>11</sup> However, the wage impact varies by occupational groups, with blue-collar workers gaining some 22 percent as a result of unionization. In contrast, white-collar workers' wages are actually reduced some 20 percent.<sup>12</sup> These findings may, in part, explain the relatively small impact found for unionized government workers as a whole. However, it is obvious that these findings based upon national data can vary by state and area. Furthermore, salaries represent only one dimension of where unions could potentially impact on governmental costs. The costs of collective bargaining could be substantial.

in the areas of fringe benefits and personnel practices.

Information on the impact of unions on governmental wages in Nevada is currently very limited. The most readily available data sources include the recent U.S. Census of Governments reports and the Wage and Salary Surveys conducted by the Personnel Division of the Nevada State Department of Administration over the years 1973-1977. To supplement these data, the Bureau of Business and Economic Research surveyed the microfilm files of the Public Employees Retirement System of the State of Nevada for monthly wage information on ten Nevada local governments for the period 1960-1977. Analysis of these data provides an overview of the earnings impacts of unions. This was especially useful background information in assessing the impact of union activity on local government units in Nevada.

#### Analysis of Average Wage Rate Data for Nevada

Data from the 1957, 1962, 1967, and 1972 U.S. Census of Governments reveal that Nevada governmental employees have consistently been paid more than the national average for state and local government employees, but less than governmental employees in California and the West (see Table 7-5). This pattern generally prevails for all employee groups, including teachers. Since the wage pattern holds for the periods before and after the legal institutionalization of public sector collective bargaining in Nevada, it may not be attributed to collective bargaining.

With wages generally being considerably lower in rural and smaller urban areas compared to major metropolitan areas, it might be thought that Nevada's wages are lower than California's (and the West's) because of the relative smallness of our urban areas. But Nevada's wages are lower than California's for each population size class of county area (see Table 7-6). However, local governmental employees per capita increase as county population decreases. And Nevada

TABLE 7-5

State and Local Government Payroll, by Level of Government,  
Nevada, California, The West, and the United States

	Average Monthly Earnings, full-time Employees				
	All	State Governments		Local Governments	
		Teachers	Other	Teachers	Other
	\$	\$	\$	\$	\$
1972, October					
Nevada	811	1204	845	917	726
California	983	1374	921	1200	882
West	887	1174	820	1048	804
United States	790	1237	718	947	696
1967, October					
Nevada	606	998	576	720	532
California	735	1061	715	880	650
West	666	951	630	780	591
United States	568	991	519	682	490
1962, October					
Nevada	466	767	472	520	412
California	574	836	553	688	515
West	-	-	-	-	-
United States	442	750	399	537	388
1957, April					
Nevada	367		408	418	319
California	419		420	511	375
West	-		-	-	-
United States	336		320	406	303

Source: 1957, 1962, 1967, and 1972 Census of Governments,  
U.S. Department of Commerce, Bureau of the Census.

TABLE 7-6

Local Government Employment and Payrolls for Population-Size Groups of County Areas,  
Nevada and California: October 1972

Item	All Areas	Population-size group (1970 population)					
		250,000 or more	100,000 to 249,999	50,000 to 99,999	25,000 to 49,999	10,000 to 24,999	Less than 10,000
Nevada							
Number of county areas	17	1	1	-	-	4	11
Full-time equivalent employment per 10,000 population-functions other than education	224.6	204.1	249.6	-	-	253.5	250.4
Average October Earnings, full- time non-education employees	\$726	\$782	\$706	-	-	\$599	\$598
California							
Full-time equivalent employment per 10,000 population-functions other than education	192.6	193.3	174.6	191.8	201.3	262.5	356.9
Average October Earnings, full- time non-education employees	\$882	\$902	\$776	\$746	\$707	\$657	\$639

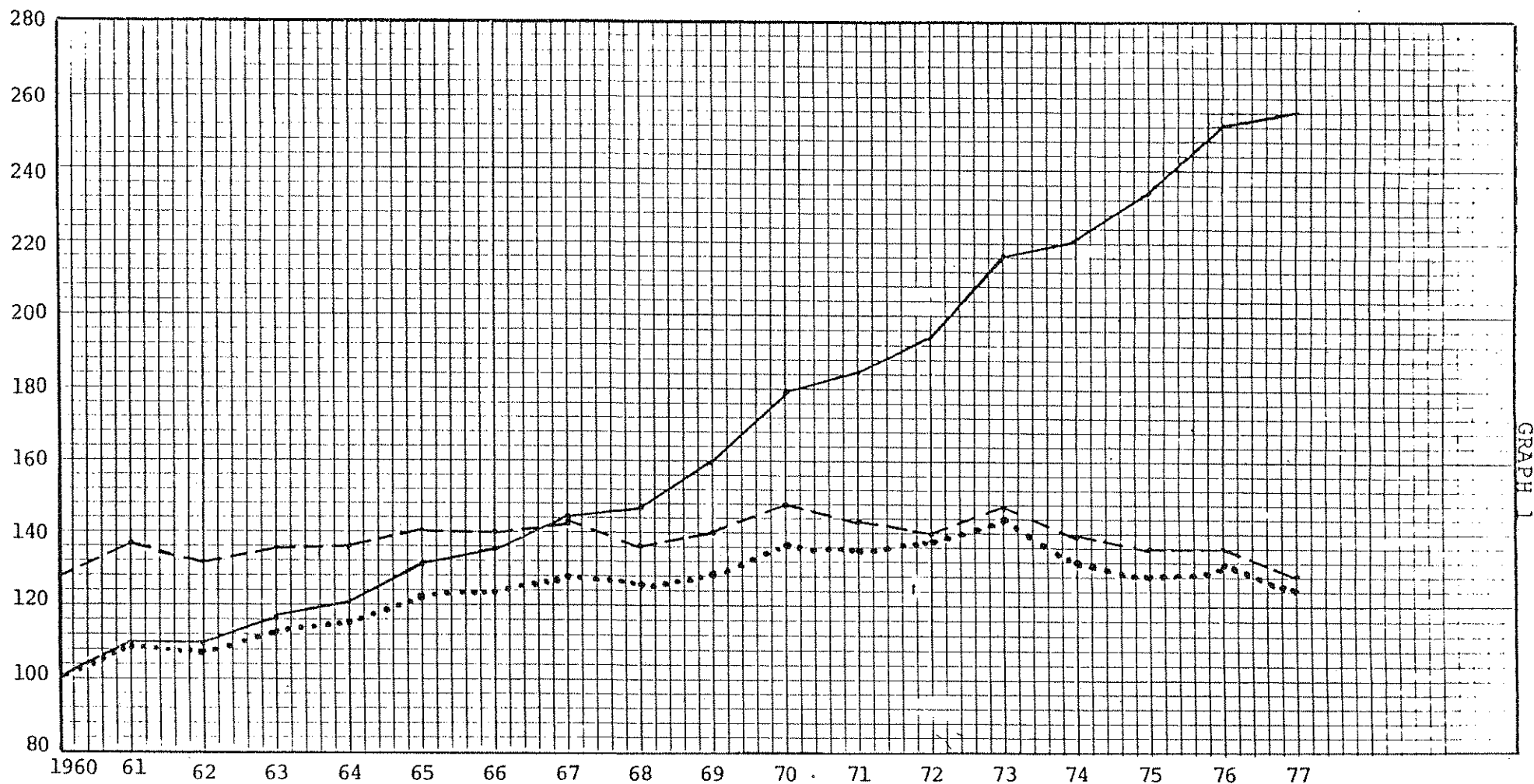
Source: 1972 Census of Governments, U.S. Department of Commerce, Bureau of the Census

uses more governmental employees per capita than does California. Hence per capita annual wages for local governmental employees were almost identical for Nevada (\$213) and California (\$219) in 1972.

Analysis of Nevada State Retirement data<sup>13</sup> on average monthly wage rates for ten local governments (Clark County, Las Vegas and North Las Vegas; Washoe County, Reno and Sparks; Churchill County and Fallon; and White Pine County and Ely) provides very interesting results (see Graph 1). Annual wages increased some 156 percent between 1960 and 1977 and they increased significantly more rapidly after 1968. With the passage of the Local Government Employee-Management Relations Act in 1969 and the following increase in union activity, one might easily conclude that unions were a major casual force in the huge wage increases. But before drawing that conclusion, one should account for the tremendous impact of inflation.

The national consumer price index increased relatively little between 1960 and 1968, but since then the rate of growth has been dramatic: The consumer price index only increased from 100 in 1960 to 117 in 1968, but by 1977 it had risen to 205. Deflating the index of Nevada local government wages by the U.S. consumer price index shows that in terms of purchasing power, Nevada's wages only increased 25 percent. There was a fairly consistent trend of moderate increases until 1973 when real wages peaked at 144 percent of their 1960 level. Since then they have fallen 19 percentage points.

Since local governments have to pay wages which are competitive with the private sector, it is also useful to compare Nevada's local government wages with the wages paid by U.S. private businesses. The ratio of these government and private wages reveals that Nevada has consistently paid more than the average for U.S. business. This is not surpris-



NEVADA LOCAL GOVERNMENT WAGE INDEXES

- Index of Nevada Monthly Average Wages
- Ratio of Nevada Monthly Average Wages to U.S. Private Business Average Monthly Wages
- ..... Ratio of Nevada Monthly Average Wages to the CPI

Source: Derived from data supplied by Public Employees Retirement System of the State of Nevada and U.S. Department of Labor, Bureau of Labor Statistics

ing, given that Western wage rates are higher than the national average and that the reported U.S. private business wages are only for non-supervisory personnel. What is surprising is that local government wages increased relatively over most of the 1960-70 period, with a peak in 1970 (148) and a subsequent peak in 1973 (147). Since 1973, local government wages relative to the private sector have fallen. By 1977, the ratio was 129, or only two points above the 1960 ratio of 127 (see Graph 1).

Review of the same data series by each of the ten local government jurisdictions (see Table 7-7) illustrates that major urban employers have paid higher wages than the rural employers. Up through 1968 and prior to the Local Government Employee-Management Relations, both urban and rural area wages experienced wage increases which were generally quite similar. However, over the 1969-1977 period, the urban employer wages increased more rapidly than the rural employers. This was especially true for the employers in the Washoe County area. With collective bargaining being more predominant in the major urban areas, these relatively high gains might be interpreted as being caused by union negotiations.

However, average wage estimates for the local governments could vary for a number of reasons, including unique local labor market conditions, changes in the legal and/or administrative environment for collective bargaining, changes in the average tenure of government employees, and sampling error. To gain more insight into the factors actually causing the wage increases, multiple regression analysis was employed to analyze the data. Local government wages were found to be strongly related to local private sector payrolls. However, increasing wage rates were not found to be significantly affected by the collective bargaining process.<sup>14</sup>



TABLE 7-7

## MONTHLY AVERAGE WAGES FOR SELECTED NEVADA GOVERNMENTS

Indexed by 1960 Average Wages, U.S. Private Business Average Monthly Wages,  
and the U.S. Consumer Price Index, 1960-1977

Government Unit	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
UPBAN AREAS																		
<u>Clark County -</u>																		
Average Monthly Wage	\$432.45	\$454.19	\$465.86	\$477.53	\$503.63	\$529.74	\$555.85	\$586.30	\$639.43	\$682.65	\$781.93	\$760.20	\$793.11	\$957.15	\$969.81	\$1030.19	\$1008.87	\$1010.33
1960 Average Wage <sup>a</sup>	100	105	108	110	116	122	129	136	148	158	181	176	183	221	224	238	233	234
U.S. Private Business Wage <sup>b</sup>	129	133	131	131	133	135	136	137	140	140	152	138	135	155	144	142	129	120
C.P.I. <sup>c</sup>	100	104	106	107	110	114	117	120	126	127	138	128	130	147	134	128	121	114
<u>Las Vegas -</u>																		
Average Monthly Wage	\$418.77	\$496.53	\$446.33	\$489.39	\$498.25	\$565.83	\$595.50	\$615.62	\$620.45	\$716.86	\$794.99	\$945.00	\$911.64	\$915.76	\$1022.98	\$932.02	\$1127.14	\$1036.06
1960 Average Wage <sup>a</sup>	100	119	107	117	119	135	142	147	148	171	190	226	218	219	219	223	269	247
U.S. Private Business Wage <sup>b</sup>	125	145	126	134	132	145	145	144	136	147	154	172	155	146	152	128	145	123
C.P.I. <sup>c</sup>	100	118	105	114	113	126	129	126	126	151	145	165	155	146	131	123	140	120
<u>North Las Vegas -</u>																		
Average Monthly Wage	\$459.20	\$465.73	\$472.25	\$535.39	\$567.58	\$615.63	\$574.48	\$621.62	\$662.69	\$675.11	\$823.61	\$791.38	\$796.05	\$895.02	\$964.35	\$871.81	\$996.04	\$982.09
1960 Average Wage <sup>a</sup>	100	101	103	117	124	134	125	135	144	147	179	172	173	195	210	190	217	214
U.S. Private Business Wage <sup>b</sup>	137	136	133	147	150	157	140	145	145	139	160	144	136	143	143	120	128	117
C.P.I. <sup>c</sup>	100	100	101	114	118	125	114	119	123	130	137	126	123	130	126	104	113	104
<u>Washoe County -</u>																		
Average Monthly Wage	\$425.63	\$493.22	\$477.35	\$486.37	\$510.80	\$515.44	\$511.50	\$607.21	\$570.17	\$623.00	\$634.48	\$650.27	\$707.48	\$835.27	\$901.39	\$972.02	\$1091.02	\$1098.30
1960 Average Wage <sup>a</sup>	100	116	112	114	120	121	120	143	134	146	149	153	166	196	212	228	256	258
U.S. Private Business Wage <sup>b</sup>	128	144	134	133	135	131	125	142	125	128	123	118	120	133	133	134	140	131
C.P.I. <sup>c</sup>	100	115	110	111	114	113	109	127	115	129	114	112	118	131	127	125	133	126
<u>and -</u>																		
Average Monthly Wage	\$424.88	\$452.16	\$479.43	\$514.07	\$537.06	\$601.90	\$611.02	\$658.30	\$623.37	\$682.90	\$760.89	\$822.37	\$900.88	\$993.15	\$1090.19	\$1152.41	\$1197.80	\$1255.97
1960 Average Wage <sup>a</sup>	100	106	113	121	126	142	144	155	147	161	179	194	212	231	257	271	282	296
U.S. Private Business Wage <sup>b</sup>	127	132	135	141	142	154	149	154	137	140	148	149	153	151	161	159	154	150
C.P.I. <sup>c</sup>	100	105	111	117	120	136	131	136	126	130	137	142	150	154	154	149	147	144
<u>Sparks -</u>																		
Average Monthly Wage	\$464.65	\$502.70	\$540.75	\$582.30	\$606.80	\$648.80	\$697.10	\$827.40	\$825.20	\$744.10	\$882.91	\$864.61	\$972.40	\$966.72	\$1033.38	\$989.57	\$1099.53	\$1122.46
1960 Average Wage <sup>a</sup>	100	108	116	125	131	140	150	178	178	160	190	186	209	208	222	213	237	242
U.S. Private Business Wage <sup>b</sup>	139	147	152	160	161	166	170	193	181	153	171	157	166	154	153	136	141	134
C.P.I. <sup>c</sup>	100	107	114	121	125	131	136	158	152	129	145	136	148	139	133	117	123	118

TABLE 7-7(contd.)  
MONTHLY AVERAGE WAVES FOR SELECTED NEVADA GOVERNMENTS (Contd.)

Indexed by 1960 Average Wages, U.S. Private Business Average Monthly Wages,  
and the U.S. Consumer Price Index, 1960-1977

Government Unit	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
<b>MURAL AREAS</b>																		
<b>Churchill County -</b>																		
Average Monthly Wage	\$377.42	\$399.95	\$418.07 <sup>a</sup>	\$436.19	\$452.25 <sup>d</sup>	\$468.30	\$479.60	\$500.10	\$550.75	\$540.00	\$527.05	\$654.30	\$609.16	\$635.40	\$715.40	\$822.70 <sup>d</sup>	\$930.00	\$821.50
1960 Average Wage <sup>a</sup>	100	106	111	116	120	124	127	133	146	143	140	173	161	168	190	218	246	212
U.S. Private Business Wage <sup>b</sup>	113	117	118	120	120	120	117	117	121	111	102	119	104	101	106	113	119	95
C.P.I. <sup>c</sup>	100	105	109	113	114	116	115	118	125	115	107	127	114	112	114	120	128	103
<b>Fallon -</b>																		
Average Monthly Wage	\$406.44	\$412.24	\$424.40	\$460.47	\$492.50	\$474.85	\$518.60	\$532.75	\$582.55	\$631.47	\$648.80	\$685.65	\$630.75	\$798.65	\$871.30	\$842.80	\$931.10	\$935.25
1960 Average Wage <sup>a</sup>	100	101	104	113	121	117	117	131	143	155	160	169	169	196	214	207	244	237
U.S. Private Business Wage <sup>b</sup>	122	120	119	126	130	121	127	124	128	130	126	125	107	127	129	116	127	111
C.P.I. <sup>c</sup>	100	100	102	110	115	109	106	116	122	125	122	133	120	131	128	114	114	112
<b>White Pine County -</b>																		
Average Monthly Wage	\$392.69	\$392.35	\$458.20	\$426.47	\$451.75	\$476.00	\$498.15	\$502.00 <sup>d</sup>	\$505.85	\$462.65	\$549.25	\$580.10	\$560.85	\$655.70	\$695.75	\$788.32	\$743.20	\$822.42
1960 Average Wage <sup>a</sup>	100	100	117	109	115	121	127	128	129	118	140	148	143	167	177	198	189	239
U.S. Private Business Wage <sup>b</sup>	117	115	129	117	120	121	122	117	111	95	107	105	96	105	103	107	95	98
C.P.I. <sup>c</sup>	100	99	115	106	110	113	115	113	110	95	107	108	101	111	106	109	98	102
<b>Ely -</b>																		
Average Monthly Wage	\$379.47	\$441.67	\$419.50	\$397.78	\$434.40	\$476.85	\$488.40	\$513.65	\$536.00	\$616.42	\$589.85	\$546.07	\$618.40	\$686.40	\$697.70	\$761.00	\$719.90	\$795.42
1960 Average Wage <sup>a</sup>	100	116	111	105	114	126	129	135	141	162	155	144	163	181	184	201	190	210
U.S. Private Business Wage <sup>b</sup>	113	129	118	109	115	122	119	120	118	127	114	99	105	109	103	105	92	95
C.P.I. <sup>c</sup>	100	114	109	102	109	118	117	119	121	131	118	105	116	121	119	110	99	102
<b>TOTALS</b>																		
Average Monthly Wage	\$424.50	\$467.64	\$464.28	\$491.40	\$512.99	\$554.04	\$571.94	\$614.63	\$625.43	\$679.10	\$760.99	\$786.09	\$823.89	\$921.44	\$937.85	\$994.28	\$1066.30	\$1087.66
1960 Average Wage <sup>a</sup>	100	110	109	116	121	131	135	145	147	160	179	185	194	217	221	234	251	256
U.S. Private Business Wage <sup>b</sup>	127	137	131	135	136	141	140	143	137	140	148	143	140	147	139	137	137	129
C.P.I. <sup>c</sup>	100	109	107	113	115	122	123	128	126	129	137	135	138	144	132	129	131	125

Sources: Derived from data supplied by Public Employees Retirement System of the State of Nevada and U.S. Department of Labor, Bureau of Labor Statistics.

Notes: <sup>a</sup> 1960 Average Wage Index = 100

<sup>b</sup> Nevada monthly average wage divided by U.S. Private Business monthly average wages.

<sup>c</sup> 1960 Monthly Average Wage Index divided by Consumer Price Index value for that year, base year 1960 (1960 = 100)

<sup>d</sup> Retirement System data not available for sampling. Estimates derived from values for the preceding year and the subsequent year.

### Survey of Nevada Wage Data by Occupation

In addition to average wage rate data, a review of recent survey wage data by occupation collected by the State Personnel Division is enlightening. Low, high, and median wage rates are reported in Table 7-8 for fourteen relatively typical Nevada local government occupational categories for the years 1973-1977.<sup>15</sup> Wage rates clearly have risen dramatically over this brief period. Table 7-9 provides a view of the wage increase in percentage terms. The low or entry level wage rates increased on average about 27 percent, maximum wages gained 34 percent, and median wages increased 32 percent.

Based upon national experience with collective bargaining, we might expect to see proportionately larger wage increases for the blue-collar occupations compared to the white-collar occupations. No clear or consistent pattern emerges, with the proportionately larger wage increases being distributed amongst both groups (see Table 7-9). The rapid wage increases for clerk stenographers and engineering technicians and the slow increase for carpenters are not readily explainable. However, the rapid increases for light equipment operators, police officers, and fire fighters are in part explainable by the rapid wage increase for these occupations by non-local government employers (see Appendix E). Police and fire fighter unions have been especially active in Nevada and may in part be responsible for the above average increases. The higher than average wage increases for light equipment operators is in keeping with the trends among non-local government employers.

While these wage increases might appear excessive, when compared to the increases in the U.S. consumer price index, we see that Nevada's local government employees have actually lost ground, falling between two and seven percent between 1973 and 1977 (see Table 7-10). Similarly, when compared to

TABLE 7-8

Monthly Wages of Nevada City and County Government Employers, July 1973/July 1977

Occupation, Interquartile Range and Median		1973 \$	1974 \$	1975 \$	1976 \$	1977 \$
Clerk Typist	Low	541	595	597	684	710
	High	649	701	728	811	868
	Median	599	659	686	744	775
Clerk Stenographer	Low	558	588	660	746	770
	High	675	726	799	875	927
	Median	605	660	691	797	854
Civil Engineer	Low	1001	1090	1165	1270	1262
	High	1277	1387	1425	1569	1626
	Median	1109	1221	1295	1407	1478
Engineering Technician	Low	735	832	850	971	971
	High	841	990	1053	1146	1307
	Median	804	884	943	1016	1179
Draftsman	Low	761	788	800	871	898
	High	856	898	991	1092	1078
	Median	780	859	896	961	995
Accountant <sup>a</sup>	Low	878	959	864	1097	1044
	High	1067	1191	1125	1303	1478
	Median	967	1066	1013	1185	1237
Personnel Analyst	Low	877	1017	947	1143	1039
	High	1067	1333	1333	1485	1406
	Median	968	1151	1151	1271	1216
Key punch Operator	Low	589	622	658	720	768
	High	702	763	785	850	880
	Median	629	692	745	767	794
Light Equipment Operator <sup>b</sup>	Low	618	703	700	781	789
	High	784	948	894	1079	1085
	Median	715	825	778	942	971
Auto Mechanic	Low	800	820	850	933	970
	High	930	1007	1021	1133	1183
	Median	868	941	916	1025	1070
Carpenter, Maintenance	Low	804	877	884	1016	927
	High	928	979	1074	1174	1183
	Median	860	965	979	1094	1068
Custodial Worker	Low	535	602	667	744	739
	High	655	720	826	863	829
	Median	605	666	731	817	774
Police Officer	Low	800	866	903	970	1063
	High	923	1003	1095	1264	1261
	Median	892	988	1082	1170	1227
Fire Fighter	Low	600	653	661	793	829
	High	729	750	756	927	1008
	Median	665	726	731	844	919
Occupational Average	Low	722	787	800	910	913
	High	863	957	993	1112	1151
	Median	790	879	903	1003	1040

Source: Wage and Salary Survey, Nevada State Department of Administration, Personnel Division.

a Senior Accountant in 1973, Accountant for 1974-1977.

b Truck Driver (Median) in 1973, Light Equipment Operator for 1974-1977.

TABLE 7-9

Index<sup>a</sup> of Monthly Wages of Nevada Local Governments<sup>b</sup> - July 1973 - July 1977

Occupation, Interquartile Range and Median		1973 %	1974 %	1975 %	1976 %	1977 %
Clerk Typist	Low	100	100	110	126	131
	High	100	108	112	125	134
	Median	100	110	115	124	129
Clerk Stenographer	Low	100	105	118	134	138
	High	100	108	118	130	137
	Median	100	109	114	132	141
Civil Engineer	Low	100	109	116	127	126
	High	100	109	112	123	127
	Median	100	110	117	127	133
Engineering Technician	Low	100	113	116	132	132
	High	100	118	125	136	155
	Median	100	110	117	126	147
Draftsman	Low	100	104	105	114	118
	High	100	105	116	128	126
	Median	100	110	115	123	128
Accountant	Low	100	109	98	125	119
	High	100	112	105	122	139
	Median	100	110	105	123	128
Personnel Analyst	Low	100	116	108	130	118
	High	100	125	125	139	132
	Median	100	119	119	131	126
Key punch Operator	Low	100	106	112	122	130
	High	100	109	112	121	125
	Median	100	110	118	122	126
Light Equipment Operator	Low	100	114	113	126	128
	High	100	121	114	138	138
	Median	100	115	109	132	136
Auto Mechanic	Low	100	103	106	117	121
	High	100	108	110	122	127
	Median	100	108	106	118	123
Carpenter, Maintenance	Low	100	109	110	126	115
	High	100	105	116	127	127
	Median	100	112	114	127	124
Custodial Worker	Low	100	113	125	139	138
	High	100	110	126	132	127
	Median	100	110	121	135	128
Police Officer	Low	100	108	113	121	133
	High	100	109	119	137	137
	Median	100	111	121	131	138
Fire Fighter	Low	100	107	109	130	136
	High	100	103	104	127	138
	Median	100	109	110	127	138
Fourteen Occupation Average	Low	100	108	111	126	127
	High	100	111	115	129	134
	Median	100	111	114	127	132

Source: Derived from Wage and Salary Survey, Nevada State Department of Administration, Personnel Division.

a 1973 Wage by occupation = 100

b City and County

TABLE 7-10

Ratio of Nevada Local Government Monthly Wage Index to U.S. Consumer Price Index<sup>a</sup>  
July 1973-July 1977.

Occupation, Interquartile Range and Median		1973 %	1974 %	1975 %	1976 %	1977 %
Clerk Typist	Low	100	99	91	98	96
	High	100	97	92	98	98
	Median	100	99	95	97	95
Clerk Stenographer	Low	100	95	97	111	101
	High	100	97	97	101	100
	Median	100	98	94	103	103
Civil Engineer	Low	100	98	96	99	92
	High	100	98	92	96	93
	Median	100	99	97	99	98
Engineering Technician	Low	100	102	96	103	97
	High	100	106	103	106	114
	Median	100	99	97	98	108
Draftsman	Low	100	94	87	89	87
	High	100	95	96	100	92
	Median	100	99	95	96	94
Accountant	Low	100	98	81	98	87
	High	100	101	87	95	102
	Median	100	99	87	96	94
Personnel Analyst	Low	100	105	90	101	87
	High	100	113	103	109	97
	Median	100	107	98	102	92
Key punch Operator	Low	100	95	92	95	95
	High	100	98	92	94	92
	Median	100	99	97	95	92
Light Equipment Operator	Low	100	103	93	98	94
	High	100	109	94	108	101
	Median	100	104	90	103	100
Auto Mechanic	Low	100	93	88	91	89
	High	100	97	91	95	93
	Median	100	97	88	92	90
Carpenter, Maintenance	Low	100	98	91	98	84
	High	100	95	96	99	93
	Median	100	101	94	99	91
Custodial Worker	Low	100	102	103	109	101
	High	100	99	104	103	93
	Median	100	99	100	105	94
Police Officer	Low	100	97	93	94	98
	High	100	98	98	107	100
	Median	100	100	100	102	101
Fire Fighter	Low	100	96	90	101	100
	High	100	93	86	99	101
	Median	100	98	91	99	101
Fourteen Occupation Average	Low	100	98	92	99	93
	High	100	100	95	101	98
	Median	100	100	95	99	97

Source: Derived from Wage and Salary Survey, Nevada State Department of Administration, Personnel Division; U.S. Department of Labor, Bureau of Labor Statistics.

<sup>a</sup> 1973 Consumer Price Index = 100

the U.S. private business wages, local governments slipped slightly behind during the five year period (see Table 7-11).

Since Nevada's economy and labor market are unique, it is reasonable to also compare wages in local governments with those of Nevada's private sector. While local governments started out the period with relatively higher wages, by 1977 they had fallen close to parity (Table 7-12).

Comparing local government wages with Nevada State Government wages reveals a very close relationship between their wage increases (see Table 7-13). Likewise, wage changes in Nevada have been very similar to changes among Western Region State and Federal Employers, though there appeared to be a minor decline in 1977 (see Table 7-14).

Given that the 1973-1977 period was one of considerable collective bargaining activity in Nevada's local governments, it is particularly revealing that local government wages by occupation have not risen relative to any other comparative private or public sector wages. The evidence in fact suggests that the relative wages have fallen in many cases. This again portrays a picture of unions being a relatively mild force in the determination of wages in recent years.

Based upon this analysis of several data sources, we may conclude that Nevada's local government collective bargaining practices have not had a major impact on wage increases. However, this survey does not conclusively demonstrate that unions have not had a major economic impact on local governments. The costs of collective bargaining may be substantial in the areas of fringe benefits, personnel practices, and the actual administrative costs of collective bargaining. These issues are analyzed in the following chapters.

TABLE 7-11

Ratio of Nevada Local Government Monthly Wage Index to U.S. Private Non-supervisory Wage Index<sup>a</sup>, July 1973-July 1977.

Occupation, Interquartile Range and Median		1973 %	1974 %	1975 %	1976 %	1977 %
Clerk Typist	Low	100	102	95	101	98
	High	100	100	97	101	100
	Median	100	102	99	100	96
Clerk Stenographer	Low	100	97	102	108	103
	High	100	100	102	105	102
	Median	100	101	98	106	105
Civil Engineer	Low	100	101	100	102	94
	High	100	101	97	99	95
	Median	100	102	101	102	99
Engineering Technician	Low	100	105	100	106	99
	High	100	110	108	110	116
	Median	100	102	101	101	110
Draftsman	Low	100	97	91	92	88
	High	100	97	100	103	94
	Median	100	102	99	99	96
Accountant	Low	100	101	85	101	89
	High	100	104	91	98	104
	Median	100	102	91	99	96
Personnel Analyst	Low	100	108	93	105	88
	High	100	116	108	112	99
	Median	100	110	103	105	94
Key punch Operator	Low	100	98	97	98	97
	High	100	101	97	97	93
	Median	100	102	102	98	94
Light Equipment Operator	Low	100	106	98	101	96
	High	100	112	98	111	103
	Median	100	107	94	106	102
Auto Mechanic	Low	100	96	92	94	90
	High	100	100	95	93	95
	Median	100	100	92	95	92
Carpenter, Maintenance	Low	100	101	95	101	86
	High	100	97	100	102	95
	Median	100	104	98	102	93
Custodial Worker	Low	100	105	108	112	103
	High	100	102	109	106	95
	Median	100	102	104	109	96
Police Officer	Low	100	100	98	97	99
	High	100	101	103	110	102
	Median	100	103	104	105	103
Fire Fighter	Low	100	99	94	105	102
	High	100	96	89	102	103
	Median	100	101	95	102	103
Fourteen Occupation Average	Low	100	101	96	102	95
	High	100	104	100	104	100
	Median	100	103	99	102	99

Source: Derived from Wage and Salary Survey, Nevada State Department of Administration, Personnel Division; U.S. Department of Labor, Bureau of Labor Statistics.

<sup>a</sup> 1973 U.S. Private Non-supervisory Wage Index = 100



TABLE 7-12

Ratio of Monthly Wages of Nevada Local Governments to Nevada Private Sector Employers, July 1973/July 1977

Occupation, Interquartile Range and Median		1973 %	1974 %	1975 %	1976 %	1977 %
Clerk Typist	Low	120	120	118	124	127
	High	108	111	112	112	120
	Median	116	116	120	115	121
Clerk Stenographer	Low	106	104	113	121	118
	High	103	102	103	109	102
	Median	104	107	101	112	115
Civil Engineer	Low	93	100	108	105	-
	High	91	105	103	92	-
	Median	85	95	93	95	-
Engineering Technician	Low	106	113	110	111	118
	High	94	104	96	95	105
	Median	102	108	102	95	119
Draftsman	Low	110	107	103	100	109
	High	96	94	91	90	87
	Median	99	105	97	90	100
Accountant	Low	110	111	100	127	104
	High	89	108	87	98	99
	Median	99	107	94	107	103
Personnel Analyst <sup>a</sup>	Low	110	118	109	132	104
	High	89	121	103	111	94
	Median	99	115	106	115	101
Key punch Operator	Low	121	115	120	120	123
	High	109	109	100	113	112
	Median	110	112	115	111	111
Light Equipment Operator	Low	123	82	75	93	76
	High	83	95	82	86	88
	Median	102	88	74	83	81
Auto Mechanic	Low	100	108	94	99	108
	High	98	92	85	86	96
	Median	100	99	88	96	99
Carpenter, Maintenance	Low	95	105	98	86	72
	High	78	84	83	85	65
	Median	92	94	85	81	70
Custodial Worker	Low	130	134	140	143	142
	High	117	115	120	130	114
	Median	127	133	121	126	112
Police Officer <sup>b</sup>	Low	111	127	110	114	114
	High	108	102	101	106	114
	Median	115	115	116	121	113
Fire Fighter <sup>b</sup>	Low	83	96	81	93	89
	High	85	76	70	78	91
	Median	85	85	78	87	85
Occupational Average	Low	108	110	106	112	100
	High	97	103	96	100	99
	Median	103	106	99	103	102

Source: Derived from Wage and Salary Survey, Nevada State Department of Administration, Personnel Division; U.S. Department of Labor, Bureau of Labor Statistics.

a Deflated with Accountant for the private sector

b Deflated by Auto Mechanic (x .9) for private sector

TABLE 7-13

Ratio of Monthly Wages of Nevada Local Governments to Nevada State Government,  
July 1973/July 1977

Occupation, Interquartile Range and Median		1973 %	1974 %	1975 %	1976 %	1977 %
Clerk Typist	Low	108	112	107	116	-
	High	104	107	97	102	-
	Median	-	-	-	-	-
Clerk Stenographer	Low	106	107	113	121	118
	High	103	106	101	105	105
	Median	-	-	-	-	-
Civil Engineer	Low	123	127	-	116	109
	High	125	129	-	104	102
	Median	-	-	-	-	-
Engineering Technician	Low	108	116	-	122	115
	High	98	110	-	105	113
	Median	-	-	-	-	-
Draftsman	Low	112	110	-	109	107
	High	100	100	-	100	93
	Median	-	-	-	-	-
Accountant	Low	94	112	96	115	104
	High	91	111	91	99	107
	Median	-	-	-	-	-
Personnel Analyst	Low	90	99	88	100	86
	High	86	103	89	94	84
	Median	-	-	-	-	-
Key punch Operator	Low	112	113	113	117	118
	High	108	111	99	102	100
	Median	-	-	-	-	-
Light Equipment Operator	Low	88	95	91	95	91
	High	89	102	84	96	91
	Median	-	-	-	-	-
Auto Mechanic	Low	103	100	99	102	101
	High	95	98	86	90	89
	Median	-	-	-	-	-
Carpenter, Maintenance	Low	103	107	103	111	96
	High	95	95	91	94	89
	Median	-	-	-	-	-
Custodial Worker	Low	106	114	119	126	118
	High	105	110	110	108	98
	Median	-	-	-	-	-
Police Officer	Low	98	101	-	-	106
	High	90	93	-	-	91
	Median	-	-	-	-	-
Fire Fighter <sup>a</sup>	Low	87	89	85	96	96
	High	83	81	71	82	85
	Median	-	-	-	-	-
Occupational Average	Low	103	107	101	111	105
	High	98	104	92	98	96
	Median	-	-	-	-	-

Source: Derived from Wage and Salary Survey, Nevada State Department of Administration, Personnel Division; U.S. Department of Labor, Bureau of Labor Statistics.

<sup>a</sup> Deflated by Auto Mechanic (x .9) for State

TABLE 7-14

Ratio of Monthly Wages of Nevada Local Governments to Western Region State and Federal Employers, July 1973/July 1977

Occupation, Interquartile Range and Median		1973 %	1974 %	1975 %	1976 %	1977 %
Clerk Typist	Low	107	106	-	101	99
	High	113	113	-	110	110
	Median	108	106	-	100	104
Clerk Stenographer	Low	101	102	-	107	106
	High	106	112	-	111	110
	Median	99	113	-	110	103
Civil Engineer	Low	92	85	-	102	84
	High	91	88	-	98	90
	Median	90	89	-	99	87
Engineering Technician	Low	105	122	-	119	104
	High	103	120	-	111	121
	Median	109	117	-	110	122
Draftsman	Low	100	110	-	94	101
	High	99	108	-	103	105
	Median	93	115	-	91	103
Accountant	Low	88	102	-	99	88
	High	79	100	-	98	104
	Median	82	99	-	99	96
Personnel Analyst	Low	82	85	-	81	67
	High	77	92	-	93	82
	Median	77	88	-	85	74
Key punch Operator	Low	116	111	-	113	110
	High	110	114	-	110	108
	Median	109	111	-	108	107
Light Equipment Operator	Low	144	105	-	119	104
	High	117	126	-	110	111
	Median	166	115	-	104	99
Auto Mechanic	Low	109	100	-	109	100
	High	97	100	-	103	96
	Median	107	101	-	107	95
Carpenter, Maintenance	Low	100	100	-	95	80
	High	89	93	-	95	91
	Median	99	106	-	93	85
Custodial Worker	Low	104	110	-	110	106
	High	108	113	-	117	107
	Median	110	116	-	116	106
Police Officer	Low	92	82	-	80	77
	High	85	88	-	92	86
	Median	89	87	-	91	83
Fire Fighter <sup>a</sup>	Low	91	89	-	103	95
	High	84	83	-	93	91
	Median	91	87	-	98	90
Occupational Average	Low	102	101	-	102	94
	High	97	100	-	103	101
	Median	102	104	-	101	97

Source: Derived from Wage and Salary Survey, Nevada State Department of Administration, Personnel Division; U.S. Department of Labor, Bureau of Labor Statistics.

<sup>a</sup> Deflated by Auto Mechanic(x .9) for Western Region State and Federal employees.

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## NOTES

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11. Ibid., pp. 253-254; and G. Donald Jud and James L. Walker, "Discrimination by Race and Class and the Impact of School Quality," Social Science Quarterly, Vol. 58, No. 4, March 1977, pp. 731-749.
12. David Shapiro, "The Relative Wage Effects of Unions in the Public and Private Sectors," Industrial and Labor Relations Review, Vol. 31, No. 2, January 1978, pp. 193-203.
13. Estimated average monthly wage rates for full-time employees contributing to the State Retirement System were based upon a ten percent or twenty observation sample, whichever was larger, of reported monthly earnings and employment.
14. The actual data utilized in the regression analysis were from the local government in the Reno and Las Vegas Metropolitan areas for the years 1969-1977. The multiple regression models explained average wages as a function of average payroll in the third quarter of the previous year and dummy variables representing binding factfinding (1 for 1972-1978, 0 otherwise) and collective bargaining (1 when contract existed between local government and the relevant employees' association, 0 otherwise).
15. The "low" and "high" wages are the interquartile points of the array of low and high wage rates reported by the employer units surveyed. The wages reported for the years 1976 and 1977 include the value of the increased employer retirement contribution for those entities that chose to pay the employees' share of contribution.

## Chapter 8

LOCAL GOVERNMENT FRINGE BENEFITS AND  
TOTAL COMPENSATION IN NEVADA

Fringe benefits have been growing in importance as a major cost to employers in the private and public sectors. The purpose of this chapter is to analyze the growth of fringe benefits amongst Nevada's local governments. Fringe benefits are added to wages to arrive at an estimate of average total employee compensation. After presenting the findings on total compensation, the chapter concludes with an analysis of the impact of collective bargaining on fringe benefits and total compensation.

National Fringe Benefit Trends

Fringe benefits consist of the following major components: (1) compensated leave time, which includes paid holidays, annual leave, and sick leave; (2) special compensations, including shift differentials (overtime pay), call-back pay, moving remuneration, and uniform allowances; (3) insurance, including health, dental, and unemployment; and (4) retirement and pension contributions by employers. A variety of methodological approaches exists for determining which benefits should be included and the precise contributions by employers for such benefits. For instance, some in both private and public sectors compute coffee breaks as having a monetary value to be included in fringe benefits. Others choose not to take such an approach. This results in some disparity in the value of fringe benefits reported by different studies. However, the disparity produced by the alternative approaches is generally small enough so that meaningful comparisons generally can be made.

The recent dramatic growth of U.S. private business fringe benefits has been documented by numerous studies. The Bureau of Labor Statistics of the U.S. Department of Labor estimates that fringe benefits as a percent of base wages in private industry have increased from 24.0 percent in 1966

to 31.0 percent in 1974.<sup>1</sup> Consistent with these government findings, surveys conducted by the United States Chamber of Commerce find that fringe benefits have grown steadily since the early 1960's. Their national surveys of private business indicate fringe benefits as a percent of wages were 28.6 percent in 1963, 32.7 percent in 1973, and 35.4 percent in 1975.<sup>2</sup> In 1975, the range of fringe benefits by industry group was found to vary from a low of 28.1 percent of department store wages to a high of 38.2 percent in petroleum refining. Evidence collected by the Chamber studies reveals that the highest fringe benefits in the country were made in the Northeast, followed in order by the West, Midwest, and South.

Another recent study conducted in late 1977, found that average fringe benefits per employee in the private sector increased from \$1,152 to \$3,052 between 1966 and 1976--an increase of 165 percent.<sup>3</sup> During the same time span, pay on the average went up 86 percent, from \$5,534 a year to \$10,309 in 1976. Fringe costs amounted to \$208.6 billion in 1976, up from \$67 billion in 1966. In percentage terms, these figures reveal that 29.6 percent of wages and salaries in 1976 consisted of fringe benefits, a figure up sharply from the 20.8 percent recorded in 1966.

The following chart may be useful to grasp the significance of the tremendous increase in fringe benefit allocations experienced in the private sector since 1966:

Costs of Fringe Benefits to Private Employers\* (Billions \$)

	1966	1976
Vacations, Sick Leave . . . . .	\$20.2	\$59.2
Social Security . . . . .	10.6	34.3
Pensions, Profit Sharing . . . . .	8.6	31.8
Rest Periods at Work . . . . .	6.7	21.1
Health Insurance . . . . .	5.9	26.1
Unemployment Compensation . . . . .	3.7	9.0
Life Insurance . . . . .	1.7	4.1
Worker's Compensation . . . . .	.5	1.3
All Other Benefits . . . . .	8.7	21.7

\* Source: U.S. News and World Report, October 31, 1977, pp.88-89



There are several factors that contribute to expanding fringe benefit costs. Fairly traditional non-wage payments such as health insurance, retirement benefits, vacation pay, and sick leave have been expanded to cover such items as dental work and legal assistance. In addition, inflation has had an important effect upon wages, escalating workers into higher income brackets. To avoid higher taxes, employees often prefer increases in non-taxable, non-wage payments. Inflation has also had an effect upon costs of the benefits themselves, especially in the area of health care. Private sector employers were affected as well by the Employee Retirement Income Security Act, passed by Congress in 1974, which mandated fully funded retirement benefits and guaranteed vesting rights for employees. In addition, Social Security contributions have been significantly increased in recent years.

Compared to the private sector, fringe benefits are even higher in the Federal government. A study conducted by the Office of Management and Budget indicates that the 2.7 million Federal employees received some \$41 billion in salaries and benefits for fiscal 1975, of which approximately \$11 billion consisted of fringe benefits. The \$11 billion expenditure for fringe benefits constituted about 37.8 percent of employee wages.<sup>4</sup>

These results point to a major national trend of increasing fringe benefit costs. Though the various methodologies used by private and public entities to calculate benefits differ, the trend clearly is significant. Estimates of fringe benefits as a percentage of wages ranged from 29.6 per cent to 37.8 percent in 1975-76, and it might be expected that similar estimates would be found in the State of Nevada for the same time period. Given the growth trends observed nationally, we might further anticipate fringe benefit packages to range between 32 and 40 percent of wages currently, and to be even higher in the future.

#### Fringe Benefits in Nevada

Fringe benefit data for Nevada are very limited. The

Personnel Division of the Nevada State Department of Administration has conducted in recent years surveys of the public and private sectors. The 1976 survey found that fringe benefit packages in the state ranged from a low of 26.2 percent of wages to a high of 39.8 percent, with the overall average being 32.3 percent.<sup>5</sup> The private sector alone ranged from 26.3 percent to 37.5 percent, with an average of 30.8 percent. Nevada's public sector employers, including federal, state, and local governments, offered on average fringe benefits as a percentage of wages equal to 32.5 percent. The range reported was between 26.2 and 39.8 percent. It appears that government employers have been paying fringe benefits as a percentage of wages at a rate somewhat above the private sector. This is consistent with national patterns of higher fringe benefits in the public sector.

Information on fringe benefits in Nevada's local governments over time is essential for a comprehensive analysis of total personnel costs and the influence of collective bargaining practices. No such data were readily available prior to this study. Hence, the Bureau of Business and Economic Research assembled this data in cooperation with the personnel offices of selected local governments. Due to the importance of these data, we recommend that in the future they be collected on an ongoing annual basis.

The detailed personnel cost information for the following local government groups is presented in Appendix F: Clark County non-uniformed employees and firemen; Las Vegas Metropolitan police; City of Las Vegas non-uniformed employees and firemen; City of North Las Vegas non-uniformed employees, firemen, and police; Washoe County non-uniformed employees and sheriffs; Truckee Meadows Fire District employees; City of Reno non-uniformed employees, firemen, and police; City of Sparks non-uniformed employees, firemen, and police; and City of Fallon municipal employees.

The information collected and analyzed consisted of data between 1969 and 1978 in most cases. Some personnel offices

were able to provide data back to 1960. Information was obtained to estimate the monthly monetary value of the fringe benefits which were judged to be of major significance to local governments. These included employer contributions to health insurance, Nevada Industrial Commission accident insurance, State Public Employees Retirement Fund, and the State Unemployment Insurance Program. In addition, the value of sick leave, annual leave, paid holidays, longevity pay, and uniform allowance were estimated. These costs were summed to obtain a reasonably comprehensive estimate of total fringe benefits per employee.

Average monthly fringe benefits were then added to estimated wages to obtain the monthly cost of total compensation per employee. In the case of non-uniformed employees, the data consisted of average wage estimates obtained from the Public Employees Retirement System. Whenever possible, estimated median wages for policemen and firemen were obtained from local government personnel offices. If these data were not available, the above average wage data were utilized.

Table 8-1 provides in summary form the analysis of all the included governmental units in the Clark County and Washoe County metropolitan areas. This table is identical in form to that utilized in the Appendix to analyze fringe benefits and total compensation for each of the individual local governments. Average monthly fringe benefit costs for the 1969-1978 period are depicted on line one, and rise from less than \$177 in fiscal 1969-70 to over \$399 in 1977-78. Fringe benefits as a percentage of average base wages can then be seen on the second line to increase from 25 percent in 1969-70 to 35 percent in 1977-78. This is consistent with the national trends observed earlier. The 33 per cent figure for 1976-77 is very comparable to the 1976 state personnel estimate of 32.5 percent for Nevada public sector employees. However, it is somewhat above their 30.8 per cent estimate for private employers in 1976.

Average base wages (third line) rise from \$698 in 1969-70 to nearly \$1140 in 1977-78. Fringe benefits and wages are then

Table 8-1  
Estimated Average Monthly Fringe Benefit, Cost and Total Compensation  
Metropolitan Area Local Government Employees\*  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$176.83	\$196.04	\$206.97	\$224.23	\$258.82	\$275.25	\$321.04	\$361.26	\$399.32
Fringe Benefits as Percentage of Average Base Wages		25%	25%	26%	26%	28%	28%	31%	33%	35%
Average Base Wages		\$697.60	\$769.11	\$794.15	\$849.14	\$930.66	\$998.29	\$1031.91	\$1098.46	\$1139.58
Average Monthly Total Compensation		\$874.43	\$965.15	\$1001.12	\$1073.37	\$1189.48	\$1273.54	\$1352.95	\$1459.72	\$1538.90
Total Compensation Deflated by U.S. C.P.I.**		\$705.18	\$736.75	\$730.01	\$761.25	\$792.98	\$762.60	\$743.38	\$760.27	\$750.68
Total Compensation Deflated by US Private TCI+	Amt.	\$543.12	\$557.89	\$544.08	\$550.45	\$563.73	\$553.71	\$536.88	\$530.80	\$512.97
	Index	100	103	100	101	104	102	99	98	94

\* Las Vegas, North Las Vegas, Las Vegas Metropolitan Police, Clark County, Reno, Sparks, Truckee Meadows Fire District, and Washoe County.

\*\* Consumer Price Index (Base year 1960)

+ Total Compensation Index (Base year 1960)

added together to obtain average monthly total compensation. Total compensation almost doubles over the 1969-1978 period, rising from \$874 in 1969-1970 to \$1539 in 1977-1978. However, inflation resulted in average consumer prices increasing by 65 percent over this same period. Deflating the total compensation figures by the U.S. Consumer Price Index (base year 1960; see Appendix F), provides a measure of purchasing power in terms of 1960 dollars. Total compensation is seen to increase from \$705 in 1969-1970 to a peak of \$793 in 1973-1974, and thereafter decline to \$751 in 1977-1978. This pattern of a peak in 1973 and a subsequent decline is consistent with our earlier observations of wage trends in Nevada's local governments.

Average monthly total compensation is finally compared to a national private sector total compensation. The U.S. Private Hourly Compensation Index (see Appendix F) increases from 161 in 1969 to 300 in 1977. Deflating average monthly total compensation by this index provides in dollar terms a picture of how Nevada's local government employees have fared compared to national total compensation trends.

To more readily observe these trends, the dollar wage figures are then converted into an index, with the 1969 base year equal to 100. The index figures reveal that Nevada's local government total compensation increased more rapidly than they did in the U.S. private business sector over the 1969-1973 period. Since the 1973 peak, Nevada has fallen behind national total compensation growth trends. In other words, local government total compensation increased four per cent more rapidly than the national private sector between 1969 and 1973. Subsequently, local government compensation grew much more slowly and declined by 1977 to 94 percent of their 1969 position relative to the U.S. private sector. This overall decline compared to the national business compensation is quite pronounced. However, it should be carefully noted that the index reports only relationships of growth trends since 1969 and not absolute dollar or percentage comparisons with the U.S. private sector, e.g., the 94 percent figure does not necessarily

indicate that Nevada local governments were below national compensation levels in 1977.

Based on our research results of wages and fringe benefit trends, it seems reasonable to assume that Nevada's private sector total compensation has grown at a rate comparable to the national trend. If this is true, then we could interpret the drop in the total compensation index between 1973 and 1977 (last line, (Table 8-1) as indicating that local government total compensation has fallen relative to Nevada's private sector since 1973.

#### Influence of Collective Bargaining

The history of unionization and collective bargaining in the public sector was noted in the previous chapter's analysis of wage rates for local governments in Nevada. The Local Government Employee-Management Relations Act was enacted in 1969, allowing unionization and providing for collective negotiations. An important change occurred in the law in 1971, when the legislature significantly expanded the role of the governor in the binding fact-finding process. Our research on local governments in Nevada indicates that the first contracts signed between most employee associations and cities and counties occurred at about the same time, i.e., 1970-1972 (see Table 8-2). Because of the legal changes in 1971, and because of an increasing number of local governments engaging in contract negotiations, one might expect to observe an impact upon the growth of fringe benefits and total compensation on or after 1969.

Analysis of the growth of the total compensation index reported at the bottom of Table 8-1 reveals a slight increase for the 1969-1973 time period. In general terms, this holds true for regular non-uniformed employees (Table 8-3), policemen (Table 8-4), and firemen (Table 8-5). This increase could be attributed to collective negotiations that resulted in contracts, especially in this period when local governments were relatively inexperienced at bargaining. It might also represent an effort by local governments to offer compensation packages

Table 8-2

## Date of First Collective Bargaining Contract

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City of Las Vegas	CEA	1970
	Police	1970
	Fire	1970
	Fire Sup.	1976
	Bailiff	1977
Washoe County	WCEA	1974
	Sheriff	1973
	Truckee Fire	1976
Sparks	SMEA	1972
	Police	1971
	Fire	1971
Reno	RMEA	1972
	Police	1972
	Fire	1972
Clark County	PEA	1970
	Fire	1968
North Las Vegas	NLVCEA	1970
	NLVPOA	1970
	Fire	1970
Ely	Police	1978
White Pine	Sheriffs	1978

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Table 8-3  
Estimated Average Monthly Fringe Benefit Cost and Total Compensation  
Regular Non-Uniformed Employees\*  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$162.58	\$186.50	\$197.23	\$212.23	\$245.95	\$262.08	\$302.15	\$345.56	\$372.49
Fringe Benefits as Percentage of Average Base Wages		24%	24%	24%	25%	26%	26%	30%	32%	34%
Average Base Wages		\$687.45	\$779.80	\$805.64	\$846.93	\$925.51	\$997.02	\$991.34	\$1086.73	\$1084.20
Average Monthly Total Compensation		\$850.03	\$966.30	\$1002.87	\$1059.16	\$1171.46	\$1259.10	\$1293.49	\$1432.29	\$1456.69
Total Compensation Deflated by U.S. C.P.I.**		\$685.50	\$737.63	\$732.02	\$751.17	\$780.97	\$753.95	\$710.71	\$745.97	\$710.58
Total Compensation Deflated by US Private TCI†	Amt.	\$527.97	\$558.55	\$545.04	\$543.16	\$555.19	\$547.43	\$513.29	\$520.83	\$485.56
	Index	100	106	103	103	105	104	97	99	92

\* Sparks, Reno, Washoe County, Las Vegas, North Las Vegas, Clark County.

\*\* Consumer Price Index (Base year 1960)

+ Total Compensation Index (Base year 1960)



Table 8-4  
Estimated Average Monthly Fringe Benefit Cost and Total Compensation  
Policemen\*  
1969-1978

Item	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Fringe Benefit Cost	\$184.39	\$203.45	\$215.24	\$235.41	\$274.72	\$292.35	\$338.39	\$370.74	\$400.25
Fringe Benefits as Percentage of Average Base Wages	25.9%	26.4%	27.1%	27.1%	28.7%	28.3%	30.8%	31.9%	32.8%
Average Base Wages	\$711.42	\$769.61	\$794.78	\$869.37	\$958.86	\$1033.17	\$1099.89	\$1164.14	\$1221.75
Average Monthly Total Compensation	\$895.81	\$973.06	\$1010.02	\$1104.78	\$1233.58	\$1325.52	\$1438.28	\$1534.88	\$1622.00
Total Compensation Deflated by U.S. C.P.I.**	\$722.43	\$742.79	\$737.24	\$783.53	\$822.39	\$793.72	\$790.26	\$799.42	\$791.22
Total Compensation De- flated by US Private TCI+	Amt.	\$556.40	\$562.46	\$548.92	\$566.55	\$584.64	\$576.31	\$570.75	\$558.14
	Index	100	101	99	102	105	104	103	100

\* Sparks, Reno, Washoe County, Las Vegas Metropolitan Police (1973-1978), North Las Vegas.

\*\* Consumer Price Index (Base year 1960)

+ Total Compensation Index (Base year 1960)

Table 8-5  
Estimated Average Monthly Fringe Benefit Cost and Total Compensation  
Firemen\*  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$187.90	\$201.55	\$212.05	\$229.68	\$258.36	\$274.15	\$325.48	\$369.04	\$425.37
Fringe Benefits as Percentage of Average Base Wages		26.9%	26.7%	27.2%	27.5%	28.4%	28.2%	32.0%	35.0%	37.8%
Average Base Wages		\$698.76	\$755.88	\$779.86	\$835.62	\$908.64	\$970.49	\$1015.83	\$1055.47	\$1126.50
Average Monthly Total Compensation		\$886.66	\$957.43	\$991.91	1065.30	\$1167.00	\$1244.64	\$1341.31	\$1424.51	\$1551.87
Total Compensation Deflated by U.S. C.P.I.**		\$715.05	\$730.86	\$724.02	\$755.53	\$778.00	\$745.29	\$736.98	\$741.93	\$757.01
Total Compensation De- flated by US Private TCI +	Amt.	\$550.72	\$553.43	\$539.08	\$546.31	\$553.08	\$541.15	\$532.27	\$518.00	\$517.29
	Index	100	100	98	99	100	98	97	94	94

\* Sparks, Reno, Truckee Meadows Fire District (1974-1978), Las Vegas, North Las Vegas, Clark County.  
 \*\* Consumer Price Index (Base year 1960)  
 + Total Compensation Index (Base year 1960)

commensurate with other local governments in the West, or to more clearly define pay and benefits in relation to work performed. In one case, Washoe County, the increase can probably be attributed to a reclassification study and the adoption of a new merit ordinance in 1973. Such intervening variables make it difficult to assess impacts upon total compensation levels. With the option made available in 1975 to local governments to increase employer retirement contributions, another rise in the index might be expected, but the declining trend since 1973 was not significantly altered. The relative stability of fringe benefit payments does not point to a disruptive collective bargaining process.

While the overall growth trends of fringe benefits and wages did not suggest significant major collective bargaining effects, it is possible that a more detailed analysis of the individual local governments would reveal significant collective bargaining impacts. Multiple regression analysis was utilized to analyze the data between 1969 and 1978. Multiple regression models were estimated that explained fringe benefits and total compensation as a function of average county payrolls in the third quarter of the previous year and dummy variables representing binding fact-finding (1 for 1972-78, 0 other) and collective bargaining (1 when a contract existed between local government and the relevant employees' association, 0 otherwise). As expected, fringe benefits and total compensation were found to be strongly related to average metropolitan area payrolls. However, no significant impacts were found for variables representing the introduction of binding fact-finding or the signing of contracts with employee associations. The regression analysis results only serve to reinforce the view that many informed observers have about the limited influence of collective bargaining in Nevada's local governments.

Though total compensation dollar costs to local governments have increased, the data indicate that the collective bargaining process has not significantly altered the growth trend in fringe benefits and total compensation. Benefits and average total compensation appear to be reasonably in line with the private sector.



## NOTES

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2. "\$3,230 per Worker--That's What Fringes Average Now", U.S. News and World Report, December 9, 1974, pp.85-86; and "The Fringes Fever Keeps Rising", U.S. News and World Report, October 25, 1976, p.83.
3. "Hidden Raises--Those Fringes Keep on Increasing", U.S. News and World Report, October 31, 1977, pp.88-89.
4. Office of Management and Budget, "Need for Comparability Policy for Both Pay and Benefits of Federal Civilian Employees", (Microprint) Washington, D.C.: Government Accounting Office, July 1975.
5. Personnel Division of the Nevada State Department of Administration (Special Services Division), 1976.



## Chapter 9

BARGAINING COSTS, PERSONNEL PRACTICES,  
AND LEGISLATIVE IMPLICATIONS

Preceding chapters of this study reported on employee wages, fringe benefits, and total compensation for local governments in Nevada. The practice of collective bargaining may not only impact wages and benefits but also generate costs of reaching an agreement or affect staffing levels and work practices. The purpose of this chapter is to survey the limited evidence on the costs of bargaining and negotiations, consider the impact of bargaining on personnel practices, and analyze legislative implications.

The collective bargaining process for local governments, as provided for in Nevada Revised Statutes 288, has an impact upon costs. Meet and confer sessions between associations and management representatives, negotiation, preparation, and other activities consume both time and energy. Though exact costs are difficult to determine, several local government officials contacted for this study mentioned concern for rising administrative costs and the possibility of reduced work time during the bargaining phase called for under Nevada legislation. These financial and manpower burdens affect employee associations and unions as well. The cost of arriving at an agreement is a real one, and much of the burden is carried by local governments. Cost and problem areas cited by local government officials during field interviews are listed below, though it should be noted that all subjects mentioned were not listed by all jurisdictions.

### Administrative Costs

These costs involve wages paid to part-time or full-time employees who have responsibility for bargaining preparation and negotiation. Either direct wages and benefits to local government personnel or consultant fees to retained professionals would be included, as well as clerical costs.

### Productivity Costs

These costs include loss of productive time by both management and employees devoted to bargaining activities, resulting in paid man-hours committed to negotiation activities instead of normal work activities.

### Morale Problems

The bargaining process is based on an adversary relationship--management against employees represented by an association. A lengthy negotiation period could heighten differences between the two parties and result in lower morale within the organization. Multi-year contracts would reduce morale problems brought on by intense negotiations.

### Costs of Multiple Agreements

For larger jurisdictions, several bargaining units exist, and each could entail separate bargaining preparation and/or arbitration. Additional administrative costs, therefore, would be encountered.

### Length of Negotiation Process

Some jurisdictions reported that serious bargaining doesn't take place in January or February, but in March or April when more budget data are available. To conserve administrative costs and reduce the amount of time devoted to all aspects of negotiation, many jurisdictions reported that a reduction in the length of negotiations would be desirable. No consensus emerged, however, around any proposed schedule of dates to alter the system. The Advisory Committee to the Local Government Employee-Management Relations Board has suggested changes in calendar dates involved. They intend to propose to the legislature that a date of March 1 (rather than February 1) be used to select



a mediator if the need exists, and that selection be voluntary (may select a mediator rather than shall select a mediator). In fact, an impasse may not have been reached by this date and the parties may agree to continue negotiations.

Costs accruing to local governments because of the items mentioned above, while quite substantial in some cases, do not appear to be excessive, and they represent basically necessary costs to local governments if they are to participate in collective bargaining. Though total expenditures for these costs vary from entity to entity, they are primarily significant costs to larger urban governments. Smaller jurisdictions entering into the bargaining process have been able to rely on more informal and therefore less expensive bargaining procedures.

#### Personnel Practices

The Local Government Employee-Management Relations Act also has an impact upon local government personnel practices. Several personnel issues, such as hours worked, grievance procedures, or work rules and methods, can be affected by collective bargaining agreements. We found much concern over the right of associations to bargain on "safety" issues, as it was noted that several work methods--such as the appropriate number of personnel needed to complete a task--might be interpreted as safety issues. Problems in personnel practices are listed below:

##### Duplication of Effort in Personnel Procedures

Possible duplication of effort can occur because of grievance and other personnel procedures called for in both negotiated contracts and merit systems. A grievance might first be processed through union or association procedures, for example, and then through merit or personnel department procedures, resulting in increased costs in terms of preparation, presentation, and duplication of efforts.

##### Classification Studies

Negotiations over wages and benefits depend upon job classification studies for employees. Personnel

officials often must devote time to restructure or evaluate job duties before or after the bargaining process.

#### Scope of Bargaining

Most local government officials are not in favor of expanding the scope of collective bargaining issues. As was mentioned earlier, there is concern that "safety" issues mentioned in NRS 288 may be loosely interpreted, thus expanding the number of issues brought to the bargaining table. With a broad definition of safety, the impact of negotiations on work rules and work procedures could significantly affect costs. Safety issues should be confined to working conditions directly affecting employee safety only.

#### Supervisory Unions or Associations

There is a consensus among local governments that a conflict of interest exists for managers and supervisors who are represented by an employee association. The review of collective bargaining legislation enacted by other western states (included in Appendix G) notes that management personnel and supervisors are most often excluded from collective bargaining coverage.

The personnel practice issues discussed above do not appear to be critical at this time. Nevada's collective bargaining law now delineates management rights in regard to staffing levels and work performance standards, as do the laws of most western states. No major changes in legislation appear to be warranted, as personnel practices have not been greatly impacted. However, the potential for significant impact exists.

#### Problems in the Collective Bargaining Process

A number of opinions were expressed on problems in the collective bargaining process. However, we did not find a high degree of consensus on most issues. Each local government surveyed tended to have its own interpretation of important issues dependent upon specific employee-management relations

in that jurisdiction. Differences between rural and urban areas were also noticed. Though there are a few collective bargaining problems in smaller cities and counties, the issues discussed below come mainly from jurisdictions within Washoe and Clark Counties.

#### Conflict between the Budget Cycle and the Bargaining Cycle

Local governments must simultaneously resolve personnel and wage issues and budget problems. A large percentage of each jurisdiction's budget goes for wages and benefits, this poses an important issue. Some jurisdictions believe that both should be resolved at the same time, but most local governments would prefer that bargaining be completed prior to the budget cycle, with decisions based on estimated fiscal trends. In determining wages, the competitive wage rate for a given occupation is the most important consideration, and salary surveys could determine this prior to the finalization of the budget.

#### The Right to Strike

Though prohibited by state statute, several cities and counties now seem to favor strikes as part of the overall collective bargaining process. They noted that strikes might more clearly delineate and publicize unresolved issues. A few jurisdictions proposed increasing the penalties for violations of anti-strike legislation. With restrictions, strikes are permitted in Hawaii and Oregon with relatively few days lost to work stoppages. Due to the stability and general acceptance of the collective bargaining process and reasonableness of bargaining settlements in Nevada, current impasse resolution provisions of NRS 288 should not be altered.

#### Open Negotiations

This issue evoked much interest, but few solutions. Currently, wage and other demands and management positions are known only to the bargaining participants

and not to the general tax-paying public. A suggested solution involves the publication of both employee requests and management positions. Active negotiation might take place in private, but various proposals concerning wages sought by employee associations or salaries offered by management would be published for public consumption.

#### Third Party Accountability

This issue concerns the accountability of mediators and fact-finders to the public. Though no specific proposals were made, the nature of the relationship between elected local government bodies (and their legislative powers) and the power of a third party to render a decision on wages or benefits appears to be an important concern. This is also a problem for the Western states that provide for binding arbitration. With increasing fiscal constraints being placed on local governments, the awards determined by third parties assume greater importance. However, alternative methods of impasse resolution, such as strikes, may provide even less satisfactory solutions.

Other issues were also raised by local governments, such as the desirability of multi-year contracts or the fiscal soundness of retirement pensions, and these, in addition to those already mentioned, warrant further study. In general, the relative success of collective bargaining processes and legislation seems to be appreciated by local government jurisdictions in Nevada.

A drastic overhaul of present collective bargaining legislation does not appear to be warranted. Various complaints about the mechanics of the collective bargaining process have been voiced by local governments, but suggestions for improvement were often contradictory. Minor adjustments might be legislated, though we recommend that no major changes be made.

### Public Employee Collective Bargaining Legislation

The growth of unionization or representation by public employee associations in Nevada was analyzed earlier. Increased attention to collective bargaining issues for local government employees resulted in the Local Government Employee-Management Relations Act of 1969, and the Nevada legislature has since authored changes and additions to the law. Legislative developments of neighboring western states and summaries of the coverage of their collective bargaining laws can be found in Appendix G.

In Table 9-1, which follows, the legislation of Nevada is compared to that of Arizona, California, Hawaii, Idaho, Montana, Oregon, Utah, and Washington, using ten criteria that deal with the scope and provisions of their respective bargaining laws. What can be discerned is that there is little consistency in the way in which these states have promulgated collective bargaining legislation. Hawaii and Oregon, for example, allow the right to strike, while the rest of the states studied do not. Washington, though it has legislation, covers its state employees through a rule from the Washington State Personnel Board. Internal consistency can also be a problem: Montana provides a case of one branch of government disagreeing with another on the right to strike. A state court ruled that if the Montana legislature had meant to prohibit strikes, it would have ruled against them, though no legislation was enacted authorizing strikes.

Utah and Idaho, relatively small states, have begun to sanction collective bargaining at the local government level, as has Nevada. Salt Lake City, Utah, for example, has recently passed a resolution permitting employees to organize for purposes of collective bargaining, though no contracts have been signed as yet. Larger states, such as California and Washington, provide more extensive coverage. A trend might be in evidence of providing legislation covering local employees before state employees, and of

TABLE 9-1

PUBLIC EMPLOYEE COLLECTIVE BARGAINING LEGISLATION  
(1977)

State	Legislation Year Enacted	Coverage (d)	Administrative Body	Right to Bargain Collectively	Mandatory Submittal to Impasse Resolution	Binding Arbitration Provided	Employer Rights Specified	Strike Permitted
Arizona	-----	-----	-----	-----	-----	-----	-----	-----
California	1968 (a)	A (e)	Division of Conciliation (h)	No	No	No	No	No
Hawaii	1970	A	Public Employ- ment Relations Board	Yes	No (k)	Yes	Yes	Yes
Idaho	1970	B (f)	----- (i)	Yes (j)	Yes (l)	No	Yes (o)	No
Montana	1973	A	Board of Personnel Appeals	Yes	Yes	Yes	Yes	No (q)
Nevada	1969	B	Local Govern- ment Management Relations Board	No	Yes	Yes (m)	Yes	No
Oregon	1973	A	Employment Relations Board	Yes	Yes	Yes	No	Yes
Utah	1975 (b)	B (b)	-----	Yes	Yes	Yes (n)	No (p)	No
Washington	1967 (c)	A (g)	Public Employ- ment Relations Commission	Yes	No	Yes	Yes	No

FOOTNOTES to Table 9-1:

- (a) For local employees. Collective bargaining legislation for public education employees was passed in 1975; in 1977 the State Employees Collective Bargaining Act was passed.
- (b) Covers only fire fighters.
- (c) Substantially amended in 1975.
- (d) A - all state and local employees, with normal exemptions of elected and appointed officials and managerial or confidential employees.  
B - Local employees only.
- (e) State and local employees are covered in separate acts. The provision pertaining to state employees is much more comprehensive.
- (f) Idaho provides for collective bargaining by state statute only for teachers and fire fighters.
- (g) State employees are not covered in legislation, but are covered by a rule from the Washington State Personnel Board.
- (h) For local employees only.
- (i) Already-existing agencies have the duty to assure that fact-finders are appointed.
- (j) Applies only to firefighters.
- (k) No mandatory submission; however, the Board on its own may decide that an impasse exists, and begin resolution of a dispute.
- (l) This applies to fire fighters; submission is not mandatory for teachers.
- (m) Parties can agree to make fact-finding final and binding, or the governor can do this.
- (n) Arbitration is final binding, except in salary or wage matters, where it is advisory only.
- (o) Expressed for teachers only.
- (p) No management rights are specified or items specifically excluded from the scope of bargaining; however, if an issue concerns appropriation of money by the public employer, the employee organization must give certain notice.
- (q) No state statute permits strikes by public employees; however, a state court decision stated "Employees under Montana's Collective Bargaining Act are not prohibited from striking. If the legislature had intended to limit their right to strike, it could have so expressly provided, as it has provided in other occupations." State Department of Highways vs. Public Employees Craft Council, 529, P 2d 785.

expanding the comprehensive nature of legislative provisions as the size and complexity of the state and its public work force grow. -

For local governments in Nevada, current legislation is adequate to provide a stable environment for collective bargaining. Through the provisions of NRS 288, relatively competitive wage rates and fringe benefits are being paid to employees, and management and employee rights are reasonably well specified. The bargaining process has not been unduly costly, and has not as yet had a significant effect on personnel practices. At this point in time, no significant changes should be made to alter the collective bargaining process.



APPENDIX A

THE TRUTH ABOUT DEATH AND TAXES  
IN NEVADA



## APPENDIX A

THE TRUTH ABOUT DEATH AND TAXES  
IN NEVADAby  
Albin J. Dahl\*

The gospel of wealth...calls upon the millionaire to sell all that he hath and give it in the highest and best form to the poor by administering his estate himself for the good of his fellows before he is called upon to lie down and rest upon the bosom of Mother Earth. So doing, he will approach his end no longer the ignoble hoarder of useless millions; poor, very poor indeed, in money, but rich, very rich, twenty times a millionaire still, in the affection, gratitude, and admiration of his fellow-men...because he has lived, perhaps one small part of the great world has been bettered just a little.<sup>1</sup>

Scope and Purpose

After reviewing the rationale and history of death taxes and the opportunity for sharing Federal estate tax revenue, the author considers the proposed amendment to the Nevada Constitution to permit the Legislature to impose a "pick up Federal revenue" estate tax. The purpose is to show that provision for this kind of a limited scope estate tax would be prudent fiscal management and in no way a deterrent to Nevada residency of wealthy persons.

Characteristics and Rationale of Death Taxes

An estate tax is levied on the net asset value of the estate of a decedent. Funds and value of property available for distribution to heirs are reduced by the amount of the estate tax liability. Inheritance taxes are assessed to heirs of a decedent's estate and the schedule of rates varies directly with the remoteness of the relationship (if

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\* Albin J. Dahl is Professor of Economics in the College of Business Administration, University of Nevada, Reno.

any) of the heir to the decedent. Thus the schedule of inheritance tax rates payable by a son or daughter is below that payable by a nephew or niece of the decedent. The highest rates are payable by beneficiaries ("strangers") having no blood relationship to the decedent. The distinction between an estate and an inheritance tax becomes blurred if the code provides for estate tax exemptions which vary according to the relationship of the heirs to whom net proceeds or title to property is to be transferred. For example, the Federal estate tax code and that of several states grant a sizeable exemption from tax liability applicable to property to be transferred to a surviving spouse. By contrast, at their discretion, lawmakers may provide for full taxation (without any exclusion) of estate property destined for transfer to a stranger or to a distant relative. Because there is no hard line separating estate from inheritance taxes, the broader term death taxes is often an appropriate substitute phrase.

Generations ago scholars rationalized death taxes as a substitute for the decedent's obligation for helping needy people, inasmuch as provision for social welfare is essentially a responsibility of the state.<sup>2</sup> This rationale implies that the decedent's charitable contributions during his or her lifetime were inadequate, measured by some imaginary standard, and that wealth was accumulated. Death taxes make the state one of the beneficiaries of decedents who leave tangible wealth, and this was entirely just and proper, according to this "social welfare" rationale.

In modern literature on "death and taxes", scholars have noted that the estate tax has a light incidence. Along this line of thought, it is pointed out that death taxes impose less disincentive to work than is imposed by the income tax and that the adverse effect of death taxes on risk-bearing and allocation of economic resources is minimal.<sup>3</sup>

Death and gift tax rates, like those applicable to

income, are "progressive", i.e., rates increase with dollar value subject to taxation. The Federal estate tax rates are steeply progressive, reaching 70 per cent on estates of taxable value of over \$15 million; "it is only the uninformed, the ill-advised, or the altruistic individual who would not subject an estate [of this value size category] to...high [death taxes] as it passes from one generation to the next."<sup>4</sup>

By contrast, taxation at flat rates is regressive on low wealth/income individuals. The sales tax and property taxes are regressive, i.e., the same rates apply irrespective of financial status of taxpayers. But the incidence of the flat rate tax bill falls heavier on the poor than on the rich. The dollar amount of a tax bill at a flat rate is a small percentage of wealth and income of a rich person, but for a poor person, the comparable percentage is much higher.

Apparently some investors retain ownership of assets which have appreciated in value until time of death in order to avoid liability for the capital gains tax. The overall effect of this tendency is to impede the mobility of capital. By taxing transferred assets at market values as of date of death, inheritance and/or estate taxes have the effect of reaching capital gains which otherwise might never be reached. Death taxes also reach the market value of bonds which are exempt from the tax on interest earned.

#### Estate Tax Revenue Sharing

Financial exigencies of the Civil War led Congress to impose death taxes, but they were repealed in 1870. Subsequently states began to levy death taxes and by 1916 they yielded 8.2 per cent of treasury revenue in 42 states. Then fiscal needs of the Federal government during World War I prompted Congress to levy death taxes again, and this time they became firmly embedded in Federal tax structure.

Death and gift taxes are indirect because technically they apply to transfer of property rather than to property per se. Therefore, unlike taxes on income, estate and gift taxes levied by the Federal government could not be challenged

at law as offending the constitutional ban on the imposition of direct taxes.<sup>5</sup> But the Federal estate tax did arouse some controversy. It was argued that making rules and regulations relating to transfer of ownership of property is entirely within the province of states and therefore the levy of death taxes should be the exclusive preserve of states. However, the consensus at law was that the observed legislative power of the states did not preclude Federal taxation of transfer of property.

In 1924 Congress decided to compromise the issues of who (Federal or state government) shall levy death taxes by providing for sharing Federal estate tax revenue with states. Therefore, in tax revision legislation of that year, Congress allowed states which also levy an estate tax a credit equal to 25 per cent of the effective Federal estate tax rate multiplied by the total Federal estate tax liability. In 1926 this revenue sharing rate was increased to 80 per cent. In 1932, Congress raised estate tax rates but provided that the 80 per cent credit to states should continue to be based on 1926 Federal estate tax effective rates. Subsequently, Congress increased estate tax rates again in 1935, 1940, and 1941. The Federal estate tax exemption, \$100,000 in 1926, was reduced to \$50,000 in 1932 and to \$40,000 in 1935. The \$40,000 exemption was raised to \$60,000 in 1942 only because a special life insurance exclusion of \$40,000 was eliminated.

The Tax Reform Act of 1976 substituted a uniform credit for the \$60,000 exemption. For estates of decedents dying in 1977, the credit is \$30,000. Stepped increases are scheduled in each of the succeeding years through 1981 for estates of decedents dying in those years. The credit is phased in as follows:

<u>Year</u>	<u>Credit</u>	<u>"Equivalent" Exemption</u>
1977	\$30,000	\$120,666
1978	34,000	134,000
1979	38,000	147,333
1980	42,500	161,563
1981	47,000	175,625

An "equivalent" exemption of \$120,666 indicates that a Federal estate tax return must be filed for a gross estate exceeding \$120,000. As indicated by the tabulation, the equivalent exemption rises in steps to 1981. Although the Act of 1976 provides for a substantially higher exemption, it also raised estate tax rates at the lower end of the scale and lowered them for the very high value estates. The new rates are in the range of 18 per cent to 70 per cent compared with a previous spread of 3 per cent to 77 per cent.

The method of calculating the maximum credit allowable to states is illustrated below:

TABLE FOR COMPUTATION OF MAXIMUM CREDIT FOR  
STATE DEATH TAXES

(A)	(B)	(C)	(D)
Taxable estate equal to or more than -	Taxable estate less than -	Credit on amount in column (A)	Rates of credit on excess over amount in column (A) Percent
\$ 40,000	\$ 90,000	.....	0.8
90,000	140,000	\$ 400	1.6
140,000	240,000	1,200	2.4
240,000	440,000	3,600	3.2
440,000	640,000	10,000	4.0
640,000	840,000	18,000	4.8
840,000	1,040,000	27,600	5.6
1,040,000	1,540,000	38,800	6.4
1,540,000	2,040,000	70,800	7.2
2,040,000	2,540,000	106,800	8.0
2,540,000	3,040,000	146,800	8.8
3,040,000	3,540,000	190,800	9.6
3,540,000	4,040,000	238,800	10.4
4,040,000	5,040,000	290,800	11.2
5,040,000	6,040,000	402,800	12.0
6,040,000	7,040,000	522,800	12.8
7,040,000	8,040,000	650,800	13.6
8,040,000	9,040,000	786,800	14.4
9,040,000	10,040,000	930,800	15.2
10,040,000	.....	1,082,800	16.0

As indicated by the tabulation, if the taxable estate does not exceed \$40,000, the credit for state death taxes is zero.

Assume a taxable estate of \$150,000. The nearest applicable figure in column (A) of the table is \$140,000, for which the tentative credit to the state is \$1,200, as shown in column (C). But the taxable estate (\$150,000) exceeds \$140,000 of column (A) by \$10,000. Therefore, 2.4 per cent (column D) of \$10,000, or \$240, is added to the tentative credit of \$1,200 to arrive at a total credit of \$1,440.

Originally, under provisions of the 1926 legislation of Congress, states received about 80 per cent of the estate tax revenue collected by the U.S. Treasury. The rebate currently allowable to states is approximately 10 per cent of Federal estate tax revenue. Forty-four states have qualified for sharing Federal estate tax revenue by imposing death taxes which add in varying degrees to the Federal tax burden associated with transfer of title to assets in names of decedents.

But a state legislature can provide for an estate tax without imposing any additional tax liability on estates within its jurisdiction. To qualify for revenue sharing, a state must levy an estate tax but may limit its amount to 80 per cent of the percentage of the Federal estate tax collected in 1926. Five states, viz., Alabama, Alaska, Arkansas, Florida, and Georgia, have enacted qualifying innocuous "pick up the Federal rebate" estate tax legislation. If Nevada were to follow suit, estates subject to this state's jurisdiction would pay no additional tax. But the state treasury would qualify for Federal estate tax revenue sharing, estimated in the range of \$2.5 to \$3 million per year.

#### Death Tax in Nevada: Historical Background

In the early decades of this century when all of Nevada was sparsely populated and ownership of corporate



assets was concentrated in relatively few nonresident wealthy persons, it was recognized that an inheritance tax would yield substantial revenues per resident of the state. Therefore, in 1913, the Legislature provided for an inheritance tax with rates varying directly with the value of the property to be inherited and the remoteness of the relationship between the beneficiary and the testator. Twenty per cent of the tax dollars collected was allocated to counties in which inherited property was situated and the remaining 80 per cent was retained by the state treasury. But there were large yearly swings in inheritance tax revenue collected. In 1914 revenue from this source was \$123; this compared with \$57,594 in 1921, and a yearly average of \$7,002. These sharp fluctuations were viewed with apprehension by lawmakers because handsome budgets in anticipation of income from the inheritance taxes which failed to materialize might lead to increases in other taxes in years of lean revenue from the former.

In 1925 the 32nd session of the Nevada Legislature repealed the Act of 1913 which had established an inheritance tax. As we have already seen, in the following year Congress raised the estate tax credit for states to 80 per cent of the percentage of the 1926 tax rates. Nevertheless, after the elapse of many years, a resolution prohibiting enactment of an inheritance or estate tax was approved by the 39th session of the Nevada Legislature, 1939. The first step in the process of writing the ban on death taxes into the Constitution by the amendment process had been taken. At the next session of the Legislature, 1941, the anti-death tax resolution was affirmed. In 1942 the proposed amendment was approved by the electorate. Thus Article 10, Section 1 of the Nevada Constitution provides that "no inheritance or estate tax shall ever be levied..."

Providing for an estate tax to permit Nevada to follow in the footsteps of Alabama, Alaska, Arkansas, Florida, and Georgia would pick up Federal money without imposing any

additional death tax has been discussed at every regular session of the Nevada Legislature since 1961. In 1971 and 1973 a resolution to amend Article 10, Section 1 of the State Constitution to allow the "pick up" estate tax passed the Senate but died in committee in the Assembly.

At the 1975 session of the Legislature, Senate Joint Resolution No.5 providing for picking up Federal estate tax revenues was approved by an overwhelming majority in the Senate; the vote was 18 in favor and 2 opposed. This resolution barely made it to the Assembly floor, for it was reported out of the taxation committee "without recommendation" on a 5-4 vote. However, the Assembly as a whole gave Joint Resolution No.5 strong support; the vote was 36 in favor, 3 opposed, and one member not voting.

Senate Joint Resolution No.5 amending Article 10, Section 1 of the Constitution was carefully phrased to authorize the "imposition of an estate tax not to exceed the credit allowable for such a tax against the Federal estate tax, reduced by the amount paid to any other state". The ban on imposition of an inheritance tax would remain in Article 10, Section 1: "No inheritance tax shall ever be levied."

The full text of the 1975 Resolution is reproduced below:

The legislature may provide by law for the taxation of estates taxed by the United States, but only to the extent of any credit allowed by federal law for the payment of such a state tax. The combined amount of such federal and state taxes shall not exceed the estate tax which would be imposed by federal law alone. If another state of the United States imposes and collects death taxes against an estate which is taxable by the State of Nevada under this section, the amount of estate tax to be collected by the State of Nevada shall be reduced by the amount of death taxes collected by such other state. Any lien for such estate tax shall attach no sooner than the time when the tax is due and payable, and no restriction on possession or use of a decedent's property shall be imposed by law prior to the time when the tax is due and payable. The State of Nevada shall accept the determination by the United States of the taxable estate without further audit.<sup>6</sup>

However, the 1977 session of the Legislature took no action on Senate Joint Resolution No.5. Therefore, the process of amending the State Constitution to permit the "pick up" tax will have to begin all over again in 1979.<sup>7</sup>

#### Death Tax Rebate

##### Pro:

1. Nevada should join Alabama, Alaska, Arkansas, Florida, and Georgia in providing for an estate tax not to exceed the credit allowed by the Federal government. The effect would be to take a cut of the Federal estate tax without adding anything to the death tax on the estate of a Nevada resident. In the absence of a "pick up" tax, the Federal government retains the credit which would otherwise go to Nevada. IRS will not allow the state tax credit on the Federal estate tax until a receipt is forthcoming to indicate that the state tax has been paid. If this receipt is not issued within six months, IRS will assess the estate for the amount of the state "pick up" tax.

For example, assume that the Federal estate tax liability is \$9,900. IRS will determine a \$900 potential rebate to the state having jurisdiction over the estate. If the state assesses and collects the \$900 "pick up" tax, IRS will bill the estate for only \$9,000. But if the state does not collect its \$900 share of the tax, IRS will bill the estate for a total tax of \$9,900. Therefore, the estate tax liability is the same whether or not the state imposes a "pick up" tax.

"By not having a 'pick up' tax, Nevada denies itself revenue and does not decrease the total amount of tax which must be paid."<sup>8</sup>

2. The cost of administering a "pick up" tax is negligible. "In 1975...based on IRS estimates, [Nevada] would have received [revenue in the range of] \$2.5 to \$3.0 million through a "pick up" tax. Based on [the experience in other] "pick up" states, the cost of administration would have been less than \$20,000 per year."<sup>9</sup> This suggests a minimum ratio of revenue to cost of administration of 125:1. IRS does all the work.
3. Popularity of the Proposition 13 idea is likely to force a reduction in property and sales taxes, the principal sources of revenue for city and county treasuries. Therefore, it is highly probable that in the near future the Nevada State Treasury will be called upon to share some of its revenue with local governments. "Pick up" estate tax money of \$3 million per year is one per cent of the state's revenue. Prudent fiscal management suggests a need to qualify for "free" "pick up" revenue from the U.S. Treasury at long last!

Con:

1. The State's well-advertised no-tax image would be tarnished if Nevada were to provide for an estate tax. Wealthy people would be discouraged from becoming Nevada residents. Trust departments of banks, attorneys, and accountants (who prepare Federal income tax returns and Federal estate tax returns) and members of other professions will have fewer wealthy clients.<sup>10</sup>

Rebuttal:

Be truthful in advertising: the estate of a Nevada resident is liable for the Federal estate tax plus any unclaimed "pick up" revenue. Nevada, and five other states (Alabama, Alaska,

Arkansas, Florida, and Georgia) impose no additional tax on the estates of residents. A Nevada "pick up" tax will not add one penny to the estate tax of a Nevada resident.

Wealthy persons and/or their tax consultants are already familiar with the facts on death and taxes in Nevada and in other states.

Advertising that Nevada is the only state which imposes no estate tax is misleading for it implies that the estate tax liability in Nevada is lower than that incurred in the five states which have enacted "pick up" taxes. Nevada and the five states already enumerated are on equal "death tax terms" in attracting wealthy residents. Nevada has the added advantage of imposing no personal or corporate income tax.

\* \* \* \* \*

A careful analysis of "death and taxes" compels the conclusion that the Nevada Legislature should begin the process of amending Article 10, Section 1 again and follow through this time. The true meaning of the "pick up" tax should be given adequate publicity so that in the final step of the amendment process, informed voters can decide the issue.<sup>11</sup>

Amending Article 10, Section 1 to permit the "pick up" tax will require five years to accomplish. Every year of delay costs the State Treasury an estimated \$3 million or \$15 million every five years, based on estimates for the years 1971-1975. The 1976 schedules of Federal estate tax rates and uniform credits are not expected to change materially the revenue potential allowable to Nevada. As we have seen, Federal estate tax rates were increased several fold at the lower end of the scale, but the exemption was raised. The "inflation effect" on market values of estates and the increasing number of Nevada residents

suggest that the allowable "pick up revenue" from the U.S. Treasury will continue at its present level as a minimum expectation.

The wild duck has dived down to the bottom... as deep as she can get...and bitten fast hold of the weed and tangle and all the rubbish that is down there, and it would need an extraordinarily clever dog to dive after and fish her up again.<sup>12</sup>

## NOTES

1. Andrew Carnegie, The Gospel of Wealth, Kirkland, Editor, Harvard University Press, Cambridge, Mass., 1962, p.49.
2. Adolph Wagner, "Three Extracts on Public Finance", Classics in the Theory of Public Finance, R.A. Musgrave and Alan T. Peacock, editors, pp.16-28.
3. Joseph R. Seifers, "Nevada and the Death Tax", unpublished master's thesis, Department of Economics, University of Nevada, Reno, 1975, pp. 16-57, reviews the literature on theory of inheritance and estate taxes.
4. Jerome Kurtz, "Hearings on the Tax Reform Act of 1969", before House Ways and Means Committee, 91st Congress, 1st Session, pt.2, cited in E.A. Sanders and D. Westfall, Readings in Federal Taxation, p.594.
5. The 16th Amendment authorizes Congress to "lay and collect taxes on income... without apportionment among the several states...."
6. As an added precaution, it may be advisable to add the following sentence to the resolution next time: "if provision for sharing Federal estate tax revenue is ever repealed, Nevada's estate tax shall be deemed to have expired."
7. Amending the Nevada Constitution is a time-consuming process. A resolution to amend must be approved at two consecutive sessions of the Legislature and then the proposed change must be submitted to voters for approval or rejection.
8. Death Taxation in the American States, Business Research Bureau, University of South Dakota, Vermillion, SD, 1974.
9. Estate Taxes, Nevada Legislative Counsel Bureau, Office of Research, Background paper, 1977, No. 7, p. 3.
10. In 1973, the Nevada Banker's Association suggested that the proposed resolution "prohibit any attachment of or restriction on an estate as a result of a state 'pick up' tax". The essence of the prohibition is contained in SJR No. 5 (1975) and it is notable that "there was no opposition from the bankers in 1975 committee hearings". Ibid.
11. Cf. "Proposed Estate Tax has Dollars and Sense", Editorial, Nevada State Journal, March 9, 1975.
12. Quoted by J.M. Keynes, The General Theory of Employment, Interest, and Money, Harcourt, Brace, and Co., New York, 1935, p. 183.





APPENDIX B

SOME CAVEATS ON THE DATA



## Appendix B

## SOME CAVEATS ON THE DATA

The data provide the foundation of all of the analysis and suggested policy implications contained in this paper and other parts of the overall study. We should pause for a moment and consider the possible sources of error that affect the data and hence the economic relationships that we may be able to draw from the data. These errors can be classified loosely into two groups: General errors affecting the quality of the data and errors specific to cross-section and/or time-series data.

General Errors and the Quality of Data

The term "error" can have either a precise statistical interpretation or a general qualitative interpretation; however, with regard to the possible errors introduced into the revenue and expenditure data, we can adopt the general qualitative definition used by Oskar Morgenstern in his famous On the Accuracy of Economic Observations<sup>1</sup>

In the present study, a slightly broader notion of error will be used. It will not always be possible to apply current statistical theory to our treatment, for elements of bias and differences in definition are present which prevent normal distribution of the observations, creating circumstances which cannot be readily treated according to classical notions of probable error. Thus we shall be forced to use a common sense approach....An error is.... viewed to be an expression of imperfection and of incompleteness in description. It is on principle impossible to remove either of them fully....

We next discuss the possible general errors in the revenue and expenditure data in the terms described by Morgenstern and recognize that they cannot be entirely eliminated though we should be aware of their possible existence.

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<sup>1</sup>Oskar Morgenstern, On the Accuracy of Economic Observations (Princeton: Princeton University Press, 1965), p. 13.

1. Classification Errors: There is a fundamental problem faced by this study in developing a set of cross-section and time series data for local governmental fiscal operations. The data are obtained from auditing reports where items are recorded on a fund accounting approach whereas the required data are functional categories. The basic problem resides in the fact that those who produce the data have specific requirements to satisfy in terms of general accounting principles whereas analysis of the fiscal condition of local governmental entities requires that the data be in terms of functional categories. Thus classification error is likely to occur in the data in the attempt to develop a consistent set of data along functional categories for all governmental entities studied. There is seldom an exact relationship between the general concept and a particular type of data defined in a particular manner.

2. Errors Due to Printing, Copying, etc.: These types of errors can occur at any stage of data development. The original data sources on which the accounting reports are based, as well as the reports themselves, may contain reproduction errors. The extensive number of transformations in developing functional categories for the data on local finances may contain reproduction errors.

3. Calculating Error: The very large number of additions, subtractions, divisions, and multiplications necessary in the development and analysis of the data will introduce round-off error. In general, round-off error is not very serious unless one is trying to read fine line precision in the results.

4. Hiding of Information: There is always the possibility that data have been reported in such a way as to conceal information or present information in a way favorable to some specific objective.

5. The Technical Ability of the Observers: The data contained in the accounting reports have been prepared by a

wide range of individuals from full-fledged accountants to those versed only in the basic elements of bookkeeping. In addition, these individuals used various methods for maintaining and summarizing the data that finally end up in the official accounting reports that may not be uniform from governmental entity to entity. The wide range of abilities and experience will certainly introduce inconsistencies in classification and other types of errors.

The above five types of qualitative error that may affect the overall quality of the data are certainly not unique to the data developed for the local government finance study. They are common to almost any type of private or government generated data and the investigator should always keep these types of errors in mind when using the data for analysis. The basic question, however, is whether any of these five types of errors or others not mentioned, seriously influences the cross-section and time series data on revenues and expenditures for local governmental entities in the State of Nevada. No definitive answer can be given; however, members of the investigation staff who have worked closely with the data have made every attempt to adjust for errors and produce a set of data that is a reasonable description of the fiscal condition of local governmental entities along functional lines. As long as one does not try to read precise accuracy into the data and the results based on the data, we can regard the combination of errors that might influence the overall quality of the data as relatively insignificant.

Errors Specific to Cross-Section Data;

Cross-section data for counties and cities have been developed for the years 1970 and 1977. The revenues and expenditures for each governmental entity are measured for each year. In addition, by comparing the 1970 and 1977 data we can obtain some insights into the way revenues and expenditures have changed over time as was done in the above mentioned study by Atkinson and Hattori.

Cross-section data in the present context have some rather serious problems in that the counties and cities examined in the study each represent significantly different economic systems. Washoe and Clark counties for example, are large urban centers that are growing very rapidly whereas White Pine and Elko counties are rural areas with much lower population levels. The same observation holds for various cities. Thus we are combining heterogeneous governmental entities when we examine the cross-section data. While methods have been developed to handle the problem of adding "apples and oranges" together, the limited number of observations in the cross-section data make it difficult to implement these methods.

#### Errors Specific to Time Series Data

The time series data developed for each case-study governmental entity are not susceptible to the same problem as the cross-section data. In the case of the time series data, we take a given entity and develop estimates of expenditures and revenues over the period from 1970 through 1977. However, time series data have other problems. For one thing, we will be examining revenues and expenditures over a period of considerable inflation. This problem can be addressed by obtaining estimates in both nominal and real terms, that is, by taking into account inflation by the use of a price index.

Most time series data have trends which can be either upward or downward over time. The presence of trends in the data sometimes makes it difficult to separate a statistical association from an economic association. The only way to avoid the problem of trends in the data, given the limited number of observations, is to be confident of the underlying economic relationships. If the economic relationship is reasonable, then we can assume that the estimated relationship describes an economic relationship and does not simply reflect a statistical relationship between trends in the data.

### Limited Number of Observations

The reliability of statistical analysis depends on a large number of observations or "degrees of freedom". Small samples are more likely to produce biased results that may not characterize the overall population. In the case of the fiscal data developed for this study, there is a serious problem with the limited number of observations.

In the case of the cross-section data we have 17 and 16 observations of revenues and expenditures for the counties and cities, respectively for 1970 and 1977. While 17 and 16 observations is not an extremely small sample, it does leave much to be desired in terms of obtaining estimates with a high level of statistical significance. In the case of the time series data, only 8 observations are available over the period from 1970 through 1977. This is a very small sample.

Unfortunately, there is little that can be done to correct the problem of limited number of observations short of collecting more data. Time and financial resources prevented the development of more extensive data series. On the other hand, if the relationships we estimate have a high degree of statistical stability we can still make meaningful inferences from the results even if based on a small set of observations.





APPENDIX C

TIME-SERIES RESULTS



## Appendix C

## TIME-SERIES RESULTS

The relationship between expenditures, revenues, and population is measured by fitting the following expression to the time-series data:

$$(1) \quad Y_t = a_1 + a_2 \text{POP}_t$$

where  $Y$ : expenditure or revenue

$\text{POP}$ : population

$a_1$  and  $a_2$ : coefficients that describe the relationship.

$t$ : time from 1970 through 1977

Expression (1) is estimated for data transformed into natural logarithms. Transforming the data into logs will provide a direct measure of the relevant population elasticity. Specifically, estimates of the  $a_2$  coefficient are estimates of the population elasticity when the original data have been transformed into logs.

Expression (1) was estimated for each of the ten case study areas to obtain estimates of the population elasticity of expenditures and revenues as well as to determine how well population could explain the variation in expenditures and revenues over the period from 1970 through 1977 in each of the ten entities. The data are first transformed into logs to facilitate the estimation and analysis. Tables B1-B10 report the estimates of expression (1) for the ten entities.

The results are statistically significant. The  $R^2$  values are high and indicate that population accounts for most of the variation in expenditures and revenues in each of the ten entities over the eight year period. Notice that the coefficients on the population term are generally larger than those reported for the cross-section data. This is not

unusual given the rapid growth some of these areas have experienced which is captured by the time series data. On the other hand, cross-section data only measure expenditures and revenues at a point in time and thus do not reflect dynamic growth patterns over time.

The relationship between expenditure, revenue, and population is estimated for nominal values of expenditures and revenue. Nominal values reflect the historical behavior of the expenditures and revenues for each entity. These values reflect the amount of funds actually spent and the amount of funds actually received by local governments in Nevada. No correction for inflation is included in these estimates despite the fact that significant price increases in the goods and services purchased by local governments have occurred over the period from 1970 to 1977. Estimates of expression (1) however, were obtained for expenditures and revenues deflated by the price index. As expected, these results were not as statistically significant as those obtained for the nominal values. Tables B11-B20 report the estimates of expression (1). The remainder of the time-series discussion is confirmed to nominal values for expenditures and revenues.

TABLE C-1: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND POPULATION  
AND BETWEEN REVENUES AND POPULATION FOR CHURCHILL COUNTY,  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-6.50 (1.25)	2.31* (4.13)	.70	2.31
TE2	-4.64 (.89)	2.10* (3.76)	.65	2.10
TE3	-19.04* (3.88)	3.57* (6.80)	.87	3.57
GA	-47.58* (6.22)	6.45* (7.89)	.90	6.45
POL	-38.86* (5.20)	5.43* (6.80)	.87	5.43
TR1	-12.08* (5.25)	2.90* (11.78)	.95	2.90
TR2	-8.85* (4.46)	2.55* (12.00)	.95	2.55
TR3	-19.93 (6.54)	3.65* (11.20)	.95	3.65
PT	-12.35* (7.00)	2.76* (14.63)	.97	2.76
GT	-6.31 (1.44)	1.89* (4.04)	.69	1.89
CT	8.49 (2.44)	.38 (1.01)	0.00	.38
ST	NA	-	-	-

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parenthesis under each estimated coefficient.

TABLE C-2: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND POPULATION  
AND BETWEEN REVENUES AND POPULATION FOR FALLON,  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	.81 (.24)	1.64* (3.91)	.67	1.64
TE2	.81 (.24)	1.64* (3.91)	.67	1.64
TE3	-1.18 (.25)	1.78* (3.11)	.55	1.78
GA	-6.48 (1.83)	2.24* (5.17)	.79	2.24
POL	-6.59* (3.35)	2.29* (9.52)	.93	2.29
TR1	-3.80 (.96)	2.19* (4.52)	.74	2.19
TR2	-1.79 (.44)	1.94* (3.89)	.67	1.94
TR3	.38 (.05)	1.54 (1.64)	.19	1.54
PT	-3.41 (2.28)	1.82* (9.97)	.93	1.82
GT	-1.17 (.84)	1.36* (7.90)	.90	1.36
CT	15.15* (5.49)	-.49 (1.46)	.14	-.49
ST	NA	-	-	-

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parenthesis under each estimated coefficient.

TABLE C-3: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND POPULATION  
AND BETWEEN REVENUES AND POPULATION FOR CLARK COUNTY,  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-30.18* (14.63)	3.80* (23.28)	.99	3.80
TE2	-30.25* (14.63)	3.81* (23.26)	.99	3.81
TE3	-28.28* (13.18)	3.64* (21.46)	.99	3.64
GA	-31.89* (5.98)	3.82* (9.05)	.92	3.82
POL	-31.11* (13.03)	3.71* (19.64)	.98	3.71
TR1	-32.12* (11.06)	3.96* (17.22)	.98	3.96
TR2	-24.77* (10.83)	3.44* (18.27)	.98	3.44
TR3	-20.10* (12.57)	2.98* (23.54)	.99	2.98
PT	-20.48* (11.54)	2.96* (21.08)	.98	2.96
GT	-23.25* (10.23)	3.04* (16.92)	.98	3.04
CT	NA	-	-	-
ST	NA	-	-	-

<sup>a</sup>

The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parenthesis under each estimated coefficient.

TABLE C-4: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR LAS VEGAS  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-15.91 * (3.85)	2.80 * (8.02)	.90	2.80
TE2	-17.03 * (3.61)	2.90 * (7.27)	.88	2.90
TE3	-17.02 * (3.34)	2.89 * (6.72)	.86	2.89
GA	-36.26 * (7.13)	4.32 * (10.04)	.93	4.32
POL	-18.48 * (5.11)	2.91 * (9.53)	.93	2.91
TR1	-18.02 (1.94)	2.98 * (3.80)	.66	2.98
TR2	-12.78 * (4.42)	2.53 * (10.34)	.94	2.53
TR3	-14.24 * (4.95)	2.64 * (10.87)	.94	2.64
PT	-12.36 * (4.84)	2.37 * (11.01)	.95	2.37
GT	-9.23 * (4.13)	2.01 * (10.64)	.94	2.01
CT	-15.92 (2.05)	2.62 * (4.00)	.68	2.62
ST	-42.52 * (4.87)	4.88 * (6.62)	.86	4.88

a The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.



TABLE C-5: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR NORTH LAS VEGAS  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-31.37 * (3.62)	4.53 * (5.52)	.81	4.53
TE2	-31.37 * (3.62)	4.53 * (5.52)	.81	4.53
TE3	-42.63 * (3.50)	5.57 * (4.83)	.76	5.57
GA	-45.49 * (2.68)	5.62 * (3.50)	.62	5.62
POL	-66.70 * (3.34)	7.68 * (4.06)	.69	7.68
TR1	20.38 (1.28)	-.38 (.25)	0.00	-.38
TR2	-.70 (.11)	1.59 * (2.70)	.47	1.59
TR3	-2.91 (.42)	1.76 * (2.67)	.47	1.76
PT	-36.24 * (2.75)	4.77 * (3.82)	.66	4.77
GT	7.96 (1.04)	.39 (.53)	0.00	.39
CT	-37.02 (2.26)	4.82 * (3.11)	.55	4.82
ST	-71.34 * (3.37)	8.09 * (4.03)	.69	8.09

a The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level, and the absolute value of the t-statistic is enclosed by parentheses under each coefficient.

TABLE C-6: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR WASHOE COUNTY  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-27.24 * (7.01)	3.73 * (11.35)	.95	3.73
TE2	-27.18 * (6.88)	3.72 * (11.15)	.95	3.72
TE3	-27.18 * (6.88)	3.72 * (11.15)	.95	3.72
GA	-29.78 * (4.13)	3.83 * (6.28)	.85	3.83
POL	-49.92 * (17.08)	5.44 * (22.02)	.99	5.44
TR1	-32.98 * (10.15)	4.22 * (15.35)	.97	4.22
TR2	-25.10 * (8.73)	3.53 * (14.53)	.97	3.53
TR3	-25.10 * (8.73)	3.53 * (14.53)	.97	3.53
PT	-22.56 * (9.56)	3.29 * (16.45)	.97	3.29
GT	-11.12 * (3.37)	2.08 * (7.45)	.89	2.08
CT	NA	NA	NA	NA
ST	NA	NA	NA	NA

a The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level, and the absolute value of the t-statistic is enclosed by parentheses under each coefficient.

TABLE C-7: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR RENO  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-35.44 * (6.29)	4.64 * (9.29)	.92	4.65
TE2	-35.21 * (6.27)	4.63 * (9.29)	.92	4.63
TE3	-32.57 * (6.12)	4.39 * (9.28)	.92	4.39
GA	-106.64 * (5.91)	10.67 * (6.72)	.86	10.67
POL	-54.21 * (7.56)	6.16 * (9.68)	.93	6.16
TR1	-42.29 * (5.19)	5.26 * (7.27)	.88	5.26
TR2	-41.74 * (9.33)	5.20 * (13.08)	.96	5.20
TR3	-42.59 (10.02)	5.26 * (13.93)	.97	5.26
PT	-64.66 * (8.76)	7.09 * (10.81)	.94	7.09
GT	-15.76 * (4.29)	2.69 * (8.22)	.91	2.69
CT	3.69 (.62)	.96 (1.81)	.25	.96
ST	-60.28 * (4.44)	6.66 * (5.52)	.81	6.66

a The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level, and the absolute value of the t-statistic is enclosed by parentheses under each coefficient.

TABLE C-8: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR SPARKS  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-7.14 (2.08)	2.23 * (6.68)	.86	2.23
TE2	-7.15 (2.09)	2.33 * (6.69)	.86	2.23
TE3	-7.49 (1.85)	2.25 * (5.70)	.82	2.25
GA	-4.38 * (3.25)	1.76 * (13.35)	.96	1.76
POL	-11.30 * (6.32)	2.46 * (14.11)	.97	2.46
TR1	-7.63 * (3.36)	2.27 * (10.28)	.94	2.27
TR2	-3.14 (1.40)	1.82 * (8.36)	.91	1.82
TR3	-1.99 (.64)	1.68 * (5.52)	.81	1.68
PT	-9.43 * (5.44)	2.27 * (13.42)	.96	2.27
GT	-7.58 * (3.34)	1.96 * (8.84)	.92	1.96
CT	9.29 * (3.65)	.40 (1.60)	.18	.40
ST	NA	NA	NA	NA

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level, and the absolute value of the t-statistic is enclosed by parentheses under each coefficient.

TABLE C-9: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR WHITE PINE COUNTY  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	41.17 (1.34)	-2.85 (.85)	0.00	-2.85
TE2	41.30 (1.25)	-2.86 (.80)	0.00	-2.86
TE3	41.10 (1.28)	-2.85 (.82)	0.00	-2.85
GA	34.82 (1.24)	-2.38 (.78)	0.00	-2.38
POL	46.00 (1.51)	-3.67 (1.11)	.03	-3.67
TR1	34.12 (1.22)	-2.13 (.70)	0.00	-2.13
TR2	6.45 (.29)	.85 (.35)	0.00	.85
TR3	7.11 (.31)	.77 (.31)	0.00	.77
PT	6.28 (.43)	.80 (.51)	0.00	.80
GT	40.38 (1.25)	-3.14 (.90)	0.00	-3.14
CT	-25.39 (.66)	4.02 (.96)	0.00	4.02
ST	NA	-	-	-

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level, and the absolute value of the t-statistic is enclosed by parenthesis under each coefficient.

TABLE C-10: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR ELY  
1970-1977<sup>a</sup> (Nominal Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	87.00* (4.65)	-8.45* (3.94)	.68	-8.45
TE2	88.95* (4.76)	-8.68* (4.05)	.69	-8.68
TE3	71.67* (3.48)	6.72* (2.84)	.50	6.72
GA	127.08* (2.73)	-13.33* (2.50)	.43	-13.33
POL	90.53* (2.90)	-9.05* (2.53)	.43	-9.05
TR1	78.78* (3.86)	-7.50* (3.21)	.57	-7.50
TR2	74.88 (3.62)	-7.08* (2.98)	.53	-7.08
TR3	60.45 (2.44)	-5.46 (1.92)	.28	-5.46
PT	62.06 (1.77)	-5.77 (1.44)	.13	-5.77
GT	29.79 (1.46)	-2.38 (1.02)	0.00	-2.38
CT	40.33 (1.18)	-3.29 (.84)	0.00	-3.29
ST	NA	-	-	-

<sup>a</sup>

The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level, and the absolute value of the t-statistic is enclosed by parenthesis under each coefficient.

TABLE C-11: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR CHURCHILL COUNTY,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	17.81* (2.74)	-.30 (.43)	0.00	-.30
TE2	19.67* (2.84)	-.50 (.68)	0.00	-.50
TE3	5.27 (.82)	.97 (1.41)	.12	.97
GA	-23.27* (3.74)	3.85* (5.78)	.82	3.85
POL	-14.55* (2.78)	2.83* (5.04)	.78	2.83
TR1	12.22* (3.91)	.30 (.88)	0.00	.30
TR2	15.46* (14.01)	-.06 -.50	0.00	-.06
TR3	4.38 (1.94)	1.04* (4.31)	.71	1.04
PT	11.96* (3.55)	.16 (.44)	0.00	.16
GT	18.00* (5.15)	-.71 (1.91)	.27	-.71
CT	32.80* (11.36)	-2.23* (7.22)	.88	-2.23
ST	NA	-	-	-

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.

TABLE C-12: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR FALLON,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	11.00* (4.87)	.38 (1.39)	.12	.38
TE2	11.00* (4.87)	.38 (1.39)	.12	.38
TE3	9.01 (2.31)	.53 (1.12)	.03	.53
GA	3.70 (1.28)	.99 (2.79)*	.49	.99
POL	3.59* (5.66)	1.04 (13.38)*	.96	1.04
TR1	6.38 (2.00)	.94 (2.41)	.41	.94
TR2	8.39* (2.52)	.69 (1.69)	.21	.69
TR3	10.56 (1.39)	.29 (.31)	0.00	.29
PT	6.77 (4.64)*	.57 (3.21)*	.57	.57
GT	9.01 (4.84)*	.10 (.45)	0.00	.10
CT	25.33 (10.78)*	-1.74 (6.07)*	.84	-1.74
ST	NA	-	-	-

<sup>a</sup>

The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.



TABLE C-13: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR CLARK COUNTY,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-7.95* (4.19)	2.04* (13.55)	.96	2.04
TE2	-8.03* (4.23)	2.04* (13.59)	.96	2.04
TE3	-6.05* (2.77)	1.88* (10.86)	.94	1.88
GA	-9.67 (2.15)	2.05* (5.77)	.82	2.05
POL	-8.89* (4.31)	1.95* (11.95)	.95	1.95
TR1	-9.90* (3.27)	2.20* (9.16)	.92	2.20
TR2	-3.54 (1.68)	1.68* (10.05)	.93	1.68
TR3	2.12 (1.47)	1.21* (10.67)	.94	1.21
PT	1.74 (1.15)	1.20* (9.99)	.93	1.20
GT	-1.03 (.32)	1.28* (4.97)	.77	1.28
CT	NA	-	-	-
ST	NA	-	-	-

<sup>a</sup>

The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.

TABLE C-14: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR LAS VEGAS,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	9.23* (2.47)	.67 (2.12)	.33	.67
TE2	8.11 (1.88)	.77 (2.11)	.33	.77
TE3	8.12 (1.75)	.76 (1.94)	.28	.76
GA	-11.12* (2.53)	2.19* (5.88)	.83	2.19
POL	6.66 (2.17)	.78* (3.02)	.54	.78
TR1	7.12 (.77)	.85 (1.10)	.03	.85
TR2	12.36* (5.16)	.40 (1.97)	.29	.40
TR3	10.90* (4.74)	.51* (2.64)	.46	.51
PT	12.78 (6.08)*	.25 (1.38)	.11	.25
GT	15.91 (6.76)*	-.12 (.60)	0.00	-.12
CT	9.22 (1.20)	.49 (.75)	0.00	.49
ST	-17.38 (2.07)	2.76* (3.89)	.67	2.76

<sup>a</sup>

The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.

TABLE C-15: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR NORTH LAS VEGAS,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-.01 (.00)	1.56 (1.65)	.20	1.56
TE2	-.01 (.00)	1.56 (1.65)	.20	1.56
TE3	-11.28 (1.01)	2.60* (2.46)	.42	2.60
GA	-14.14 (1.34)	2.64* (2.65)	.46	2.64
POL	-35.35* (3.17)	4.70* (4.46)	.73	4.70
TR1	51.74 (2.39)	-3.35 (1.63)	.19	-3.35
TR2	30.66* (2.45)	-1.39 (1.17)	.05	-1.39
TR3	28.44* (3.21)	-1.22 (1.45)	.14	-1.22
PT	-4.88 (.33)	1.79 (1.29)	.09	1.79
GT	39.31* (3.24)	-2.59 (2.26)	.37	-2.59
CT	-5.66 (.33)	1.85 (1.14)	.04	1.85
ST	-39.98* (2.78)	5.12* (3.75)	.65	5.12

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.

TABLE C-16: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR WASHOE COUNTY,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	-5.45 (1.33)	1.88* (5.43)	.80	1.88
TE2	-5.39 (1.30)	1.88* (5.35)	.80	1.88
TE3	-5.39 (1.30)	1.88* (5.35)	.80	1.88
GA	-7.99 (1.01)	1.98* (2.96)	.53	1.98
POL	-28.13* (11.73)	3.60* (17.72)	.98	3.60
TR1	-11.20* (4.93)	2.37* (12.35)	.96	2.37
TR2	-3.32 (1.58)	1.68* (9.48)	.93	1.68
TR3	-3.32 (1.58)	1.68* (9.48)	.93	1.68
PT	-.78 (.90)	1.44* (19.77)	.98	1.44
GT	10.66* (6.06)	.23 (1.57)	.17	.23
CT	NA	-	-	-
ST	NA	-	-	-

<sup>a</sup>

The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.

TABLE C-17: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR RENO,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	2.72 (.55)	1.26* (2.85)	.50	1.26
TE2	2.94 (.60)	1.24* (2.82)	.50	1.24
TE3	5.58 (.98)	.99 (1.95)	.29	.99
GA	-67.49* (4.73)	7.27* (5.74)	.82	7.27
POL	-16.05* (4.92)	2.77* (9.55)	.93	2.77
TR1	-4.13 (.46)	1.87 (2.33)	.39	1.87
TR2	-3.59 (1.31)	1.80* (7.39)	.88	1.80
TR3	-4.44 (1.54)	1.86* (7.27)	.88	1.86
PT	-26.51* (3.71)	3.70* (5.82)	.82	3.70
GT	22.39* (4.19)	-.71 (1.49)	.15	-.71
CT	41.84* (9.63)	-2.43* (6.30)	.85	-2.43
ST	-22.13 (1.71)	3.26* (2.84)	.50	3.26

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.

TABLE C-18: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR SPARKS,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	6.66 (1.80)	.88 (2.44)	.42	.88
TE2	6.65 (1.80)	.88* (2.45)	.42	.88
TE3	6.32 (1.47)	.89 (2.14)	.34	.89
GA	9.42* (5.97)	.40* (2.63)	.46	.40
POL	2.50 (1.32)	1.11* (5.97)	.83	1.11
TR1	6.17 (1.92)	.92* (2.94)	.52	.92
TR2	10.66 (4.19)	.47 (1.91)	.27	.47
TR3	11.81* (3.41)	.33 (.98)	0.00	.33
PT	4.37* (4.00)	.92* (8.62)	.92	.92
GT	6.22* (3.06)	.61* (3.08)	.54	.61
CT	23.10* (10.22)	-.95* (4.33)	.71	-.95
ST	NA	-	-	-

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.

TABLE C-19: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR WHITE PINE COUNTY,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	3.40 (.28)	1.25 (.95)	0.00	1.25
TE2	3.53 (.27)	1.23 (.86)	0.00	1.23
TE3	3.34 (.26)	1.25 (.89)	0.00	1.25
GA	-2.95 (.61)	1.71* (3.29)	.58	1.71
POL	8.23 (.90)	.42 (.42)	0.00	.42
TR1	-3.65 (.12)	1.97 (.59)	0.00	1.97
TR2	-31.32 (.78)	4.94 (1.14)	.04	4.94
TR3	-30.66 (.77)	4.86 (1.13)	.04	4.86
PT	-31.49 (1.95)	4.89* (2.79)	.49	4.89
GT	2.61 (.07)	.95 (.22)	0.00	.95
CT	-63.15 (1.00)	8.12 (1.19)	.06	8.12
ST	NA	-	-	-

<sup>a</sup>

The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.

TABLE C-20: ESTIMATED RELATIONSHIP BETWEEN EXPENDITURES AND  
POPULATION AND BETWEEN REVENUES AND POPULATION  
FOR ELY,  
1970-1977<sup>a</sup> (Real Expenditures and Revenues)

Dependent Variable	Constant	Population	R <sup>2</sup>	Population Elasticity
TE1	45.93 (1.93)	-3.75 (1.37)	.11	-3.75
TE2	47.88 (1.99)	-3.97 (1.44)	.13	-3.97
TE3	30.60* (2.59)	-2.02 (1.49)	.15	-2.02
GA	86.02* (2.94)	-8.62* (2.57)	.45	-8.62
POL	49.46* (4.84)	-4.35* (3.71)	.65	-4.35
TR1	37.71 (1.39)	-2.80 (.90)	0.00	-2.80
TR2	33.82 (1.22)	-2.37 (.75)	0.00	-2.37
TR3	19.39 (1.46)	-.75 (.49)	0.00	-.75
PT	20.99 (1.02)	-1.07 (.45)	0.00	-1.07
GT	-11.28 (.32)	2.33 (.58)	0.00	2.33
CT	-.74 (.03)	1.42 (.42)	0.00	1.42
ST	NA	-	-	-

<sup>a</sup> The R<sup>2</sup> value is adjusted for degrees of freedom. An asterisk indicates that the coefficient is statistically significant at the .05 level and the absolute value of the t-statistic is enclosed by parentheses under each estimated coefficient.



APPENDIX D

FORECASTS OF EXPENDITURES AND REVENUES  
FROM 1978 to 1982

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## Appendix D

FORECASTS OF EXPENDITURES AND REVENUES  
FROM 1978 TO 1982

TABLE D1: PREDICTED AND FORECASTED VALUES OF TOTAL EXPENDITURE (TEL) AND TOTAL REVENUE (TRL) BASED ON ACTUAL AND FORECASTED POPULATION FOR CHURCHILL COUNTY, 1970-1982  
(Nominal Values of Expenditures and Revenues, millions)

<u>Year</u>	<u>TEL</u>			<u>TRL</u>		
	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>
1970	\$2.72	\$2.76	-1.30%	\$2.53	\$2.57	-1.60%
1971	2.76	2.84	-2.76	2.75	2.67	3.05
1972	2.93	3.19	-8.66	2.93	3.09	-5.62
1973	4.18	3.48	16.82	3.69	3.45	6.51
1974	3.57	3.68	-3.27	3.56	3.71	-4.02
1975	4.05	3.93	3.04	3.96	4.02	-1.47
1976	4.10	3.87	5.74	4.09	3.94	3.56
1977	3.80	4.27	-12.56	4.42	4.46	-1.00
1978		4.54			4.82	
1979		4.83			5.22	
1980		5.14			5.64	
1981		5.47			6.10	
1982		5.82			6.59	

TABLE D2: PREDICTED AND FORECASTED VALUES OF TOTAL EXPENDITURE (TE1)  
AND TOTAL REVENUE (TR1) BASED ON ACTUAL AND FORECASTED  
POPULATION FOR FALLON, 1970-1982  
(Nominal Values of Expenditures and Revenues, millions)

<u>Year</u>	<u>TE1</u>			<u>TR1</u>		
	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>
1970	\$ 9.42	\$10.49	-11.43%	\$8.07	\$8.90	-10.25%
1971	11.79	10.71	9.15	9.13	9.15	-.13
1972	14.42	12.74	11.62	15.21	11.54	24.12
1973	13.34	14.78	-10.74	12.49	14.07	-12.69
1974	13.94	16.78	-20.35	13.15	16.68	-26.81
1975	15.46	19.47	-13.00	16.58	17.61	-6.22
1976	20.39	17.29	15.19	19.22	17.37	9.63
1977	21.17	18.53	12.50	21.90	19.06	12.97
1978		20.19			21.39	
1979		22.01			24.01	
1980		23.99			26.95	
1981		26.15			30.26	
1982		28.51			33.96	

TABLE D3: PREDICTED AND FORECASTED VALUES OF TOTAL EXPENDITURE (TE1)  
AND TOTAL REVENUE (TR1) BASED ON ACTUAL AND FORECASTED  
POPULATION FOR CLARK COUNTY, 1970-1982  
(Nominal Values of Expenditures and Revenues, millions)

<u>Year</u>	<u>TE1</u>			<u>TR1</u>		
	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>
1970	\$32.84	\$32.86	-.07%	\$34.42	\$34.84	-1.23%
1971	37.04	35.54	4.05	38.00	37.80	.53
1972	44.12	43.34	1.76	44.68	46.49	-4.05
1973	48.33	50.44	-4.37	61.34	54.46	11.22
1974	61.68	64.58	-4.71	66.85	70.44	-5.38
1975	73.56	74.38	-1.12	78.14	81.62	-4.45
1976	77.02	79.32	-2.98	84.98	87.28	-2.71
1977	103.38	96.30	6.85	112.33	106.82	4.91
1978		112.59			125.72	
1978		131.64			147.97	
1980		153.91			174.15	
1981		179.95			204.96	
1982		210.40			241.22	

TABLE D4: PREDICTED AND FORECASTED VALUES OF TOTAL EXPENDITURE (TE1)  
AND TOTAL REVENUE (TR1) BASED ON ACTUAL AND FORECASTED  
POPULATION FOR LAS VEGAS, 1970-1982  
(Nominal Values of Expenditures and Revenues, millions)

<u>Year</u>	<u>TE1</u>			<u>TR1</u>		
	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>
1970	\$20.33	\$22.46	-10.48%	\$19.06	\$22.95	-20.39%
1971	24.29	23.79	2.06	24.29	24.41	-.47
1972	29.90	26.55	11.20	38.99	27.43	29.66
1973	27.21	28.43	-4.46	29.63	29.50	.44
1974	33.37	32.63	2.22	32.22	34.16	-6.02
1975	35.65	36.45	-2.24	33.27	38.43	-15.51
1976	41.46	38.46	7.24	38.74	40.70	-5.06
1977	41.29	44.37	-7.45	51.65	47.39	8.24
1978		48.87			52.53	
1979		53.83			58.22	
1980		59.29			64.53	
1981		65.31			71.53	
1982		71.93			79.28	

TABLE D5: PREDICTED AND FORECASTED VALUES OF TOTAL EXPENDITURE (TE1)  
AND TOTAL REVENUE (TR1) BASED ON ACTUAL AND FORECASTED  
POPULATION FOR NORTH LAS VEGAS, 1970-1982  
(Nominal Values of Expenditures and Revenues, millions)

<u>Year</u>	<u>TE1</u>			<u>TR1</u>		
	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>
1970	\$10.80	\$10.09	6.57%	\$12.47	\$13.72	-10.03%
1971	10.34	11.07	-10.34	12.91	13.61	-5.43
1972	11.61	13.10	-12.88	20.27	13.42	33.77
1973	14.72	14.64	.54	12.82	13.30	-3.74
1974	18.53	18.31	1.18	12.37	13.05	-5.52
1975	16.52	16.77	-1.47	12.44	13.15	-5.72
1976	16.51	13.79	16.52	11.49	13.37	-16.36
1977	16.83	17.37	-3.22	13.56	13.11	3.34
1978		18.62			13.04	
1979		19.96			12.96	
1980		21.39			12.89	
1981		22.92			12.81	
1982		24.56			12.74	

TABLE D6: PREDICTED AND FORECASTED VALUES OF TOTAL EXPENDITURE (TE1)  
AND TOTAL REVENUE (TR1) BASED ON ACTUAL AND FORECASTED  
POPULATION FOR WASHOE COUNTY, 1970-1982  
(Nominal Values of Expenditures and Revenues, millions)

<u>Year</u>	<u>TE1</u>			<u>TR1</u>		
	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>
1970	\$11.70	\$12.72	-8.78%	\$11.91	\$12.34	-3.63%
1971	13.16	13.51	-2.68	13.00	13.20	-1.54
1972	18.98	16.09	15.26	17.59	16.09	8.54
1973	20.15	19.78	1.86	20.34	20.32	.10
1974	23.68	24.76	-4.56	23.84	26.20	-9.93
1975	26.78	26.93	-5.60	27.96	28.81	-3.01
1976	26.62	28.39	-6.65	33.92	30.58	9.82
1977	35.39	33.98	3.99	36.79	37.48	-1.87
1978		39.25			44.12	
1979		45.33			51.93	
1980		52.36			61.12	
1981		60.48			71.95	
1982		69.84			84.69	



TABLE D7: PREDICTED AND FORECASTED VALUES OF TOTAL EXPENDITURE (TE1)  
AND TOTAL REVENUE (TR1) BASED ON ACTUAL AND FORECASTED  
POPULATION FOR RENO, 1970-1982  
(Nominal Values of Expenditures and Revenues, millions)

<u>Year</u>	<u>TE1</u>			<u>TR1</u>		
	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>
1970	\$16.41	\$16.00	2.47%	\$14.48	\$15.50	-6.98%
1971	15.95	17.21	-7.88	16.23	16.82	-3.59
1972	19.51	19.03	2.47	21.95	18.84	14.17
1973	21.45	21.83	-1.76	20.21	22.00	-8.89
1974	24.12	25.32	-4.98	29.17	26.03	10.77
1975	28.86	26.27	8.97	24.99	27.14	-8.57
1976	28.17	26.21	6.95	28.48	27.07	4.96
1977	30.45	32.80	-7.71	33.26	34.88	-4.87
1978		36.15			38.93	
1979		39.83			43.45	
1980		43.90			48.50	
1981		48.38			54.13	
1982		53.31			60.42	

TABLE D8: PREDICTED AND FORECASTED VALUES OF TOTAL EXPENDITURE (TE1)  
AND TOTAL REVENUE (TR1) BASED ON ACTUAL AND FORECASTED  
POPULATION FOR SPARKS, 1970-1982  
(Nominal Values of Expenditures and Revenues, millions)

<u>Year</u>	<u>TE1</u>			<u>TR1</u>		
	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>	<u>Actual</u>	<u>Predicted</u>	<u>Error</u>
1970	\$5.49	\$4.66	15.18%	\$4.74	\$4.32	8.79%
1971	4.70	4.82	-2.64	3.95	4.48	-13.37
1972	5.14	5.60	-8.91	5.04	5.21	-3.32
1973	5.80	6.62	-13.97	6.58	6.18	6.15
1974	8.20	7.81	4.72	7.82	7.32	6.38
1975	8.36	8.57	-2.51	8.12	8.04	1.02
1976	8.41	9.21	-9.62	8.19	8.65	-5.64
1977	11.87	10.26	13.57	9.48	9.66	-1.89
1978		11.55			10.89	
1979		13.00			12.29	
1980		14.63			13.86	
1981		16.47			15.63	
1982		18.53			17.63	

APPENDIX E

WAGES BY OCCUPATION



Table E-1

Monthly Wages of State of Nevada Employers - July 1973/July 1977

Occupation, Interquartile Range <sup>a</sup> and Median <sup>b</sup>		1973 \$	1974 \$	1975 \$	1976 \$	1977 \$
Clerk Typist	Low	503	529	558	592	-
	High	624	656	754	799	-
	Median	-	-	-	-	-
Clerk Stenographer	Low	525	552	583	618	652
	High	653	686	788	835	881
	Median	-	-	-	-	-
Civil Engineer	Low	816	857	-	1093	1153
	High	1025	1076	-	1508	1591
	Median	-	-	-	-	-
Engineering Technician	Low	682	717	-	799	843
	High	854	897	-	1093	1153
	Median	-	-	-	-	-
Draftsman	Low	682	717	-	799	843
	High	854	897	-	1093	1153
	Median	-	-	-	-	-
Accountant	Low	935	857	901	955	1007
	High	1178	1076	1238	1312	1384
	Median	-	-	-	-	-
Personnel Analyst	Low	979	1028	1079	1144	1207
	High	1234	1296	1490	1579	1666
	Median	-	-	-	-	-
Keypunch Operator	Low	525	552	583	618	652
	High	653	686	789	835	881
	Median	-	-	-	-	-
Light Equipment Operator	Low	-	-	-	-	-
	High	-	-	-	-	-
	Median	-	-	-	-	-
Auto Mechanic	Low	780	819	862	913	963
	High	979	1028	1182	1253	1322
	Median	-	-	-	-	-
Carpenter, Maintenance	Low	780	819	862	913	963
	High	979	1028	1183	1253	1322
	Median	-	-	-	-	-
Custodial Worker	Low	503	529	559	592	624
	High	624	656	754	799	843
	Median	-	-	-	-	-
Police Officer	Low	816	857	-	-	1007
	High	1025	1076	-	-	1384
	Median	-	-	-	-	-
Fire Fighter	Low	-	-	-	-	-
	High	-	-	-	-	-
	Median	-	-	-	-	-
Occupational Average	Low	711	736	748	821	901
	High	890	922	1022	1124	1235
	Median	-	-	-	-	-

Source: Wage and Salary Survey, Nevada State Department of Administration, Personnel Division.

a Absolute salary range used, interquartile range not applicable.

b Not available

Table E-2

Monthly Wages of Instate Private Employers - July 1973/July 1977

Occupation, Interquartile Range and Median		1973 \$	1974 \$	1975 \$	1976 \$	1977 \$
Clerk Typist	Low	450	497	505	550	560
	High	602	630	650	727	723
	Median	517	568	570	649	639
Clerk Stenographer	Low	527	563	584	617	653
	High	655	710	779	805	905
	Median	580	619	681	710	740
Civil Engineer	Low	1080	1086	1080	1213	-
	High	1400	1323	1390	1700	-
	Median	1300	1284	1386	1480	-
Engineering Technician	Low	-	-	-	-	-
	High	-	-	-	-	-
	Median	-	-	-	-	-
Draftsman	Low	693	737	776	875	826
	High	890	952	1092	1210	1246
	Median	786	817	925	1067	991
Accountant	Low	800	865	865	866	1000
	High	1200	1100	1298	1334	1500
	Median	975	1000	1081	1103	1200
Personnel Analyst	Low	-	-	-	-	-
	High	-	-	-	-	-
	Median	-	-	-	-	-
Keypunch Operator	Low	485	541	547	600	625
	High	647	698	780	755	789
	Median	570	617	649	692	715
Light Equipment Operator	Low	502	860	930	844	1038
	High	950	998	1091	1254	1227
	Median	702	937	1049	1130	1205
Auto Mechanic	Low	800	758	908	944	900
	High	952	1094	1200	1323	1227
	Median	865	952	1038	1072	1081
Carpenter, Maintenance	Low	848	832	903	1180	1280
	High	1185	1170	1293	1380	1828
	Median	937	1032	1147	1358	1517
Custodial Worker	Low	410	450	476	520	519
	High	562	625	687	665	727
	Median	476	499	602	650	692
Police Officer	Low	-	-	-	-	-
	High	-	-	-	-	-
	Median	-	-	-	-	-
Fire Fighter	Low	-	-	-	-	-
	High	-	-	-	-	-
	Median	-	-	-	-	-
Occupational Average	Low	660	719	757	821	822
	High	904	930	1026	1115	1130
	Median	771	833	913	991	975

Source: Wage and Salary Survey, Nevada State Department of Administration,  
Personnel Division.

Table E-3

Monthly Wages of Western Region State and Federal Government Employers - July 1973/July 1977

Occupation, Interquartile Range and Median		1973 \$	1974 \$	1975 \$	1976 \$	1977 \$
Clerk Typist	Low	505	562	-	675	718
	High	575	623	-	740	788
	Median	553	623	-	740	746
Clerk Stenographer	Low	551	578	-	770	727
	High	639	648	-	791	841
	Median	609	586	-	724	827
Civil Engineer	Low	1084	1284	-	1251	1495
	High	1408	1576	-	1596	1799
	Median	1236	1372	-	1424	1691
Engineering Technician	Low	702	681	-	814	930
	High	814	827	-	1028	1076
	Median	737	757	-	920	963
Draftsman	Low	758	718	-	928	886
	High	867	832	-	1056	1025
	Median	835	744	-	1054	962
Accountant	Low	1003	944	-	1109	1187
	High	1345	1195	-	1325	1425
	Median	1174	1079	-	1202	1294
Personnel Analyst	Low	1070	1202	-	1405	1556
	High	1390	1453	-	1596	1716
	Median	1254	1311	-	1495	1646
Key punch Operator	Low	507	561	-	639	700
	High	638	670	-	774	812
	Median	576	626	-	711	740
Light Equipment Operator	Low	430	667	-	654	757
	High	668	751	-	978	980
	Median	430	715	-	908	980
Auto Mechanic	Low	732	818	-	857	966
	High	959	1002	-	1103	1237
	Median	808	928	-	958	1131
Carpenter, Maintenance	Low	804	876	-	1075	1158
	High	1038	1054	-	1232	1294
	Median	871	913	-	1176	1250
Custodial Worker	Low	513	549	-	675	700
	High	607	638	-	740	777
	Median	552	576	-	707	727
Police Officer	Low	871	1054	-	1211	1376
	High	1087	1136	-	1373	1474
	Median	1007	1136	-	1282	1474
Fire Fighter	Low	-	-	-	-	-
	High	-	-	-	-	-
	Median	-	-	-	-	-
Occupational Average	Low	733	807	-	923	996
	High	926	954	-	1102	1173
	Median	819	874	-	1023	1110

Source: Derived from Wage and Salary Survey, Nevada State Department of Administration, Personnel Division; U.S. Department of Labor, Bureau of Labor Statistics.





APPENDIX F

AVERAGE MONTHLY FRINGE BENEFITS  
AND TOTAL COMPENSATION FOR  
SELECTED LOCAL GOVERNMENTS



Average Monthly Fringe Benefit Cost and Total Compensation  
Clark County Regular Non-Uniformed Employees  
1969-78

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Median Fringe Benefit Cost		\$160.77	\$182.20	\$183.39	\$193.37	\$233.56	\$238.83	\$334.30	\$333.46	\$351.28
Fringe Benefit as % of Median Base Wage		23.6%	23.3%	24.1%	24.4%	24.4%	24.6%	32.5%	33.1%	34.8%
Average Base Wage *		\$682.65	\$781.93	\$760.20	\$793.11	\$957.15	\$969.81	\$1030.19	\$1008.87	\$1010.33
Estimated Median Total Compensation		\$843.42	\$964.13	\$943.59	\$986.48	\$1190.71	\$1208.37	\$1364.49	\$1342.33	\$1361.61
Total Compensation Deflated by U.S. CPI **		\$680.18	\$735.98	\$688.75	\$699.63	\$793.81	\$723.57	\$749.72	\$699.13	\$664.20
Total Compensation Deflated by Private TCI +	Amt	\$532.86	\$557.30	\$512.82	\$505.89	\$564.32	\$525.38	\$541.46	\$488.12	\$453.87
	Index	100	106	98	97	108	100	103	93	87

\* Derived from Public Employees Retirement System data

\*\* Consumer Price Index (base year 1960)

+ Total Compensation Index (base year 1960)

Average Monthly Fringe Benefit Cost per Employee  
Clark County Regular Non-Uniformed Employees  
1969-1978

Type of Benefit	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$14.20	\$14.20	\$17.54	\$19.74	\$22.65	\$28.16	\$26.60	\$29.89	\$43.64
NIC Insurance	\$5.88	\$7.59	\$9.76	\$10.99	\$15.68	\$12.92	\$15.38	\$17.32	\$20.95
Retirement	\$47.79	\$54.74	\$53.21	\$55.52	\$67.00	\$67.89	\$154.53	\$151.33	\$151.55
Unemployment Insurance	-	-	-	-	-	-	-	-	-
Sick Leave	\$17.07	\$19.55	\$19.01	\$19.83	\$23.93	\$24.25	\$25.75	\$25.22	\$25.26
Annual Leave	\$42.67	\$48.87	\$47.51	\$49.57	\$59.82	\$60.61	\$64.39	\$63.05	\$63.15
Holiday Pay	\$28.16	\$32.25	\$31.36	\$32.72	\$39.48	\$40.00	\$42.50	\$41.61	\$41.68
Longevity Pay	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.15	\$5.04	\$5.05
Uniform Allowance	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTALS	\$160.77	\$182.20	\$183.39	\$193.37	\$233.56	\$238.83	\$334.30	\$333.46	\$351.28

NA Not Applicable

Estimated Monthly Fringe Benefit Cost and Total Compensation  
Clark County Firemen  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Median Fringe Benefit Cost		\$181.19	\$189.99	\$202.93	\$211.15	\$239.91	\$245.42	\$340.06	\$360.23	\$384.02
Fringe Benefits as Percentage of Median Base Wages		24.9%	24.4%	24.4%	24.4%	23.7%	24.2%	33.6%	34.7%	36.0%
Estimated Median Base Wages *		\$728.28	\$778.28	\$832.28	\$866.44	\$1012.56	\$1012.56	\$1012.56	\$1036.94	\$1067.06
Estimated Median Total Compensation		\$909.47	\$968.27	\$1035.21	\$1077.59	\$1252.47	\$1257.98	\$1352.62	\$1397.17	\$1451.08
Total Compensation Deflated by U.S. C.P.I. **		\$733.44	\$739.14	\$755.63	\$764.25	\$834.98	\$753.28	\$743.20	\$727.69	\$707.84
Total Compensation Deflated by U.S. Private T.C.I. +	Amount	\$564.89	\$559.69	\$562.61	\$552.61	\$593.59	\$546.95	\$536.75	\$508.06	\$483.69
	Index	100	99	100	98	105	97	95	90	86

\* Derived from County personnel data

\*\* CPI - Consumer Price Index (base year 1960)

+ Total Compensation Index (base year 1960)

Estimated Monthly Fringe Benefit Cost per Employee  
Clark County Firemen

Type of Benefit	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$14.20	\$14.20	\$17.54	\$19.74	\$22.65	\$28.16	\$26.60	\$29.89	\$43.64*
NIC Insurance	\$7.07	\$7.55	\$8.07	\$8.41	\$9.82	\$9.82	\$9.82	\$20.18	\$22.39
Retirement Insurance	\$54.62	\$58.37	\$62.42	\$64.98	\$75.94	\$75.94	\$172.14	\$176.28	\$181.40
Unemployment Insurance	-	-	-	-	-	-	-	-	-
Sick Leave	\$13.01	\$13.90	\$14.86	\$15.47	\$18.08	\$18.08	\$18.08	\$18.52	\$19.06
Annual Leave	\$32.51	\$34.74	\$37.16	\$38.68	\$45.20	\$45.20	\$45.20	\$46.29	\$47.64
Holiday Pay	\$21.45	\$22.90	\$24.55	\$25.54	\$29.83	\$29.83	\$29.83	\$30.56	\$31.22
Longevity Pay	\$5.00	\$5.00	\$5.00	\$5.00	\$5.06	\$5.06	\$5.06	\$5.18	\$5.34
Uniform Allowance	\$33.33	\$33.33	\$33.33	\$33.33	\$33.33	\$33.33	\$33.33	\$33.33	\$33.33
Total	\$181.19	\$189.99	\$202.93	\$211.15	\$239.91	\$245.42	\$340.06	\$360.23	\$384.02

\* Includes dental

Average Monthly Fringe Benefit Cost<sup>≠</sup> and Total Compensation  
Las Vegas Metropolitan Police  
1973-1978

		1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$247.40	\$261.31	\$367.00	\$406.19	\$433.93
Fringe Benefit as a Percentage of Average Base Wages		25.7%	25.8%	34.7%	37.3%	37.7%
Average Base Wages*		\$961.00	\$1014.00	\$1057.00	\$1090.00	\$1152.00
Average Monthly Total Compensation		\$1208.40	\$1275.31	\$1424.00	\$1496.19	\$1585.93
Total Compensation Deflated by U.S. C.P.I. **		\$805.60	\$764.66	\$782.42	\$779.27	\$773.62
Total Compensation Deflated by U.S. Private T.C.I. ⁄	Amount	\$572.70	\$554.48	\$565.08	\$544.07	\$528.64
	Index	100	97	99	95	92

\* Derived from Metropolitan Police Personnel Data

\*\* Consumer Price Index (Base year 1960)

≠ Estimated

⁄ Total Compensation Index (Base Year 1960)

Average Monthly Fringe Benefit Cost<sup>≠</sup> per Employee  
Las Vegas Metropolitan Police Department  
1973-1978

	1973-74	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$21.76	\$27.47	\$32.43	\$37.60	\$44.07
NIC Insurance	\$15.86	\$13.49	\$15.75	\$21.26	\$24.19
Retirement	\$72.08	\$76.05	\$169.12	\$185.30	\$195.84
Unemployment Insurance	-	-	-	-	-
Sick Leave	\$24.04	\$25.36	\$26.44	\$27.24	\$28.80
Annual Leave	\$60.10	\$63.40	\$66.10	\$68.10	\$72.00
Holiday Pay	\$36.06	\$38.04	\$39.66	\$40.86	\$43.20
Longevity	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
Uniform Allowance	\$12.50	\$12.50	\$12.50	\$20.83	\$20.83
TOTAL	\$247.40	\$261.31	\$367.00	\$406.19	\$433.93

≠ Estimated



Average Monthly Fringe Benefit Cost and Total Compensation  
City of Las Vegas Regular Non-uniformed Employees  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$185.33	\$204.02	\$233.89	\$238.56	\$255.62	\$279.74	\$273.50	\$410.72	\$384.74
Fringe Benefits as Percentage of Average Base Wage		25.9%	25.7%	24.8%	26.2%	27.9%	27.3%	29.3%	36.4%	37.1%
Average Base Wages *		\$716.86	\$794.99	\$945.00	\$911.64	\$915.76	\$1022.98	\$932.02	\$1127.14	\$1036.06
Average Monthly Total Compensation		\$902.19	\$999.01	\$1178.89	\$1150.20	\$1171.38	\$1302.72	\$1205.52	\$1537.86	\$1420.80
Total Compensation Deflated by U.S. C.P.I. **		\$727.57	\$762.60	\$860.50	\$815.74	\$780.92	\$780.70	\$662.37	\$800.97	\$689.71
Total Compensation Deflated by U.S. Private T.C.I. +	Amount	\$560.37	\$577.46	\$640.70	\$589.85	\$555.16	\$566.40	\$478.38	\$559.22	\$473.60
	Index	100	103	114	105	99	101	85	100	85

\* Derived from Public Employees Retirement System data  
 \*\* CPI - Consumer Price Index (base year 1960)  
 + TCI - Total Compensation Index (base year 1960)

Average Monthly Fringe Benefit Cost\* per Employee  
City of Las Vegas Regular Non-uniformed Employees  
1969-1979

Type of Benefit	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$21.42	\$21.42	\$13.10	\$18.12	\$26.99	\$26.99	\$30.00	\$32.50	\$37.92
NIC Insurance	\$7.10	\$8.67	\$12.10	\$16.41	\$19.23	\$17.80	\$18.55	\$25.80	\$25.28
Retirement Insurance	\$43.01	\$47.70	\$56.70	\$54.70	\$64.10	\$71.61	\$74.56	\$169.07	\$155.41
Unemployment Insurance	-	-	-	-	-	-	-	-	-
Sick Leave	\$17.92	\$19.88	\$23.64	\$22.80	\$22.88	\$25.56	\$23.32	\$28.16	\$25.92
Annual Leave	\$44.80	\$49.70	\$59.10	\$57.00	\$57.20	\$63.90	\$58.30	\$70.40	\$64.80
Holiday Pay	\$29.57	\$32.80	\$39.01	\$37.62	\$37.75	\$42.17	\$38.48	\$46.46	\$42.77
Longevity Pay	\$21.51	\$23.85	\$30.24	\$31.91	\$27.47	\$31.71	\$30.29	\$38.32	\$32.64
Uniform Allowance	-	-	-	-	-	NS	NS	NS	NS
TOTALS	\$185.33	\$204.02	\$233.89	\$238.56	\$255.62	\$279.74	\$273.50	\$410.72	\$384.74

\* Estimated  
NS Not Significant

Estimated Monthly Fringe Benefit Cost and Total Compensation  
City of Las Vegas Firemen  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Median Fringe Benefit Cost		\$211.03	\$213.27	\$212.38	\$236.07	\$263.05	\$292.79	\$311.19	\$455.78	\$506.98
Fringe Benefits as Percentage of Median Base Wages		27.6%	25.5%	25.4%	26.7%	28.4%	26.8%	28.5%	41.6%	43.6%
Estimated Median Base Wages *		\$765.60	\$835.60	\$835.60	\$883.32	\$926.88	\$1091.52	\$1091.52	\$1096.72	\$1162.96
Estimated Median Total Compensation		\$976.63	\$1048.87	\$1047.98	\$1119.39	\$1189.93	\$1384.31	\$1402.71	\$1552.50	\$1669.94
Total Compensation Deflated by U.S. C.P.I. **		\$787.60	\$800.66	\$764.95	\$793.89	\$793.29	\$828.93	\$770.72	\$808.59	\$814.60
Total Compensation Deflated by U.S. Private T.C.I. +	Amount	\$606.60	\$606.28	\$569.55	\$574.05	\$563.95	\$601.87	\$556.63	\$564.55	\$556.65
	Index	100	100	94	95	93	99	92	93	92

\* Derived from City personnel data

\*\* CPI - Consumer Price Index (base year 1960)

+ Total Compensation Index (base year 1960)

Estimated Monthly Fringe Benefit Cost per Employee  
City of Las Vegas Firemen

Type of Benefit	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$21.42	\$21.42	\$13.10	\$18.12	\$26.99	\$26.99	\$30.00	\$32.50	\$37.92
NIC Insurance	\$7.58	\$9.11	\$10.70	\$15.90	\$19.46	\$18.88	\$21.72	\$25.11	\$28.38
Retirement Insurance	\$45.94	\$50.14	\$54.31	\$57.42	\$69.52	\$81.86	\$92.78	\$186.44	\$197.70
Unemployment Insurance	-	-	-	-	-	-	-	-	-
Sick Leave	\$19.16	\$20.88	\$20.88	\$22.08	\$23.16	\$25.48	\$25.48	\$27.40	\$29.08
Annual Leave	\$47.90	\$52.20	\$52.20	\$55.20	\$57.90	\$63.70	\$63.70	\$68.50	\$95.96
Holiday Pay	\$31.61	\$34.45	\$34.45	\$36.43	\$38.21	\$42.04	\$42.04	\$45.21	\$47.98
Longevity Pay	\$22.97	\$25.07	\$26.74	\$30.92	\$27.81	\$33.84	\$35.47	\$37.29	\$36.63
Uniform Allowance	-	-	-	-	-	-	-	\$33.33	\$33.33
TOTAL	\$211.03	\$213.27	\$212.38	\$236.07	\$263.05	\$292.79	\$311.19	\$455.78	\$506.98

Average Monthly Fringe Benefit Cost and Total Compensation  
City of North Las Vegas Non-Uniformed Employees  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$144.99	\$188.54	\$192.42	\$204.45	\$226.11	\$235.68	\$247.56	\$267.02	\$372.02
Fringe Benefits as Percentage of Average Base Wages		21.5%	22.9%	24.3%	25.7%	25.3%	24.4%	28.4%	26.8%	37.9%
Average Base Wages*		\$675.11	\$823.61	\$791.38	\$796.05	\$895.02	\$964.35	\$871.81	\$996.04	\$982.09
Average Monthly Total Compensation		\$820.10	\$1012.15	\$983.80	\$1000.50	\$1121.13	\$1200.03	\$1118.37	\$1263.06	\$1354.11
Total Compensation Deflated by U.S. C.P.I.**		\$661.37	\$772.63	\$718.10	\$709.57	\$747.42	\$718.58	\$614.49	\$657.84	\$660.54
Total Compensation De- flated by US Private TCI+	Amt.	\$509.38	\$585.06	\$534.67	\$513.08	\$531.34	\$521.75	\$443.80	\$459.29	\$451.37
	Index	100	115	105	101	104	102	87	90	89

\* Derived from Public Employees Retirement System

\*\* CPI - Consumer Price Index (base year 1960)

+ Total Compensation Index (base year 1960)

Average Monthly Fringe Benefits Costs per Employee

City of North Las Vegas - Regular Employees

	3.34	4.08	4.13	1969-1979		4.91	4.91	5.18	5.98	6.28
	580.50	708.00	715.50	751.00	789.00	852.00	852.00	898.00	933.00	980.00

Type of Benefit	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	1977-1978	1978-1979
Health Insurance	7.18	16.34	17.91	19.48	20.70	21.93	21.93	24.48	27.69	27.69
Retirement	34.83	42.48	42.93	45.06	55.23	59.64	68.16	71.84	139.95	147.00
Unemployment Insurance	-	-	-	-	-	-	-	-	-	Reimbursement Method
NIC Insurance	5.40	10.56	10.99	13.45	17.31	13.71	14.07	19.43	23.90	29.29
Sick Leave	26.72	32.64	33.04	34.65	36.40	39.28	39.28	41.45	53.82	56.52
Annual Leave	33.40	40.80	41.30	43.30	45.50	49.10	49.10	51.80	53.82	56.52
Holiday Pay	20.04	24.48	24.78	25.98	27.30	29.46	29.46	31.08	44.85	47.10
Longevity Pay 3%*	17.42	21.24	21.47	22.53	23.67	25.56	25.56	26.94	27.99	29.40

Totals 144.99 188.54 192.42 204.45 226.11 235.68 247.56 267.02 372.02 393.52

\*Based on Total Projected Longevity to Total Projected Period

Estimated Monthly Fringe Benefit Cost and Total Compensation  
City of North Las Vegas Firemen  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$181.18	\$213.46	\$228.72	\$243.08	\$268.29	\$285.93	\$296.30	\$303.95	\$352.94
Fringe Benefit as a % of Average Base Wage		25.5%	26.6%	27.8%	28.1%	29.5%	28.9%	28.61%	28.10%	31.3%
Estimated Median Base Wages *		\$710.92	\$801.92	\$823.52	\$864.80	\$908.08	\$989.64	\$1035.68	\$1081.72	\$1127.76
Average Monthly Total Compensation		\$892.10	\$1015.38	\$1052.24	\$1107.88	\$1176.37	\$1275.57	\$1331.99	\$1385.67	\$1480.70
Total Compensation Deflated by U.S. CPI **		\$719.44	\$775.10	\$768.06	\$785.73	\$784.25	\$763.81	\$731.86	\$721.70	\$722.29
Total Compensation Deflated by U.S. Private TCI +	Amount	\$554.10	\$586.92	\$571.87	\$568.14	\$557.52	\$554.60	\$528.56	\$503.88	\$493.57
	Index	100	106	103	103	101	100	95	91	89

- \* Derived from City personnel data  
 \*\* Consumer Price Index (base year 1960)  
 + Total Compensation Index (base year 1960)

Average Monthly Fringe Benefits Costs per Employee

City of North Las Vegas Fire Employees

2.944	3.319	3.412	1969-1979		4.100	4.100	4.100	4.64	4.962
714.50	805.50	828.00	3.583	3.762	995.00	995.00	995.00	1126.00	1204.00

Type of Benefit	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	1977-1978	1978-1979
Health Insurance	7.18	16.34	17.91	19.48	20.70	21.93	21.93	24.48	32.20	32.20
Retirement	42.87	48.33	53.82	56.52	68.48	74.63	84.58	84.58	95.71	102.34
Unemployment Insurance	-	-	-	-	-	-	-	-	-	Reimbursement Method
NIC Insurance	6.65	8.45	12.72	15.57	20.04	16.01	16.43	21.53	28.85	37.03
Sick Leave	35.33	39.83	40.95	43.00	45.15	49.21	49.21	49.21	55.68	59.54
Annual Leave	41.21	46.47	47.77	50.17	52.67	57.40	57.40	57.40	64.96	69.46
Holiday Pay	26.50	29.87	30.71	32.25	33.86	36.90	36.90	36.90	41.76	44.66
Longevity Pay 3%*	21.44	24.17	24.84	26.09	27.39	29.85	29.85	29.85	33.78	36.12

Totals	181.18	213.46	228.72	243.08	268.29	285.93	296.30	303.95	352.94	381.35
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\*Based on Total Projected Longevity to Total Projected Payroll



Estimated Monthly Fringe Benefit Cost and Total Compensation  
City of North Las Vegas Police Employees  
1969-1978

		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$177.07	\$208.82	\$223.92	\$238.05	\$263.03	\$282.51	\$292.98	\$319.12	\$355.27
Fringe Benefit as a % of Average Base Wage		22.9%	24.2%	24.9%	25.2%	26.5%	25.9%	26.0%	27.4%	29.1%
Estimated Median Base Wages *		\$771.78	\$862.78	\$899.68	\$944.70	\$991.72	\$1090.40	\$1126.79	\$1163.16	\$1218.82
Average Monthly Total Compensation (est.)		\$948.85	\$1071.60	\$1123.60	\$1182.75	\$1254.75	\$1372.91	\$1419.78	\$1482.28	\$1574.09
Total Compensation Deflated by U.S. CPI **		\$765.20	\$818.02	\$820.15	\$838.83	\$836.50	\$822.10	\$780.10	\$772.02	\$767.85
Total Compensation Deflated by U.S. Private TCI +	Amount	\$589.35	\$619.42	\$610.65	\$606.54	\$594.67	\$596.92	\$563.40	\$539.01	\$524.70
	Index	100	105	104	103	101	101	96	91	89

\* Derived from City personnel data

\*\* Consumer Price Index (base year 1960)

+ Total Compensation Index (base year 1960)

Average Monthly Fringe Benefits Costs per Employee

City of North Las Vegas Police Employees

1969-1979

4.122   4.647   4.777   5.016   5.267   5.792   5.792   6.179   6.568   6.568  
714.50 805.50 828.00 869.50 913.00 1004.00 1004.00 1071.00 1138.50 1138.50

Type of Benefit	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	1977-1978	1978-1979
Health Insurance	7.18	16.34	17.90	19.48	20.71	21.93	21.93	24.48	27.69	27.69
Retirement	42.87	48.33	53.82	56.52	68.48	75.30	85.34	91.04	96.77	193.55
Unemployment Insurance	-	-	-	-	-	-	-	-	-	Reimbursement Method
NIC Insurance	6.65	8.45	12.71	15.57	20.04	16.15	16.58	23.18	29.17	35.01
Sick Leave	32.98	37.18	38.22	40.13	42.14	46.34	46.34	49.43	52.54	52.54
Annual Leave	41.22	46.47	47.77	50.16	52.67	57.92	57.92	61.79	65.68	65.68
Holiday Pay	24.73	27.88	28.66	30.10	31.60	34.75	34.75	37.07	49.26	49.26
Longevity Pay 3%*	21.44	24.17	24.84	26.09	27.39	30.12	30.12	32.13	34.16	34.16

Totals      177.07   208.82   223.92   238.05   263.03   282.51   292.98   319.12   355.27   457.89

\*Based on Total Projected Longevity to Total Projected Payroll

Average Monthly Fringe Benefit Cost and Total Compensation<sup>≠</sup>  
Regular Non-Uniformed Washoe County Employees  
1969-1978

		1969- 1970	1970- 1971	1971- 1972	1972- 1973	1973- 1974	1974- 1975	1975- 1976	1976- 1977	1977- 1978
Average Monthly Fringe Benefit Cost		\$133.75	\$137.59	\$142.12	\$154.98	\$224.82	\$238.32	\$336.48	\$378.82	\$406.82
Fringe Benefits as Percentage of Average Base Wages		21.5%	21.7%	21.9%	21.9%	26.9%	26.4%	34.6%	34.7%	37.0%
Average Base Wages *		\$623.00	\$634.48	\$650.27	\$707.48	\$835.27	\$901.39	\$972.02	\$1091.02	\$1098.30
Average Monthly Total Compensation		\$756.75	\$772.07	\$792.39	\$862.46	\$1060.09	\$1139.71	\$1308.50	\$1469.84	\$1505.12
Total Compensation Deflated by U.S. C.P.I. **		\$610.28	\$589.37	\$578.38	\$611.67	\$706.73	\$682.46	\$718.96	\$765.54	\$734.20
Total Compensation Deflated by U.S. + Private TCI	Amount	\$470.03	\$446.28	\$430.79	\$442.29	\$502.41	\$495.53	\$519.25	\$534.49	\$501.71
	Index	100	95	92	94	107	105	110	114	107

- \* Derived from Public Employees Retirement System data
- \*\* Consumer Price Index (base year 1960)
- + Total Compensated Index (base year 1960)
- ≠ Estimated

Average Monthly Fringe Benefit Costs<sup>7</sup> per Employee  
Washoe County Regular Non-Uniformed Employees 1969-1978

Type of Benefit	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	1977-1978
Health Insurance	\$14.56	\$15.39	\$16.09	\$16.56	\$21.00	\$21.68	\$26.10	\$33.10	\$40.60
Retirement	\$37.38	\$38.07	\$39.02	\$42.45	\$58.47	\$63.10	\$145.80	\$163.65	\$164.75
Unemployment Insurance	-	-	-	-	-	-	-	-	\$18.96
NIC Insurance	\$5.55	\$6.29	\$7.41	\$9.30	\$17.37	\$17.15	\$18.95	\$21.24	\$20.86
Sick Leave	\$14.39	\$14.69	\$15.02	\$16.36	\$24.12	\$26.01	\$28.09	\$31.51	\$31.70
Annual Leave	\$35.94	\$36.68	\$37.51	\$40.84	\$48.23	\$52.02	\$56.18	\$63.02	\$63.39
Holiday Pay	\$25.93	\$26.47	\$27.07	\$29.47	\$34.80	\$37.53	\$40.53	\$45.47	\$45.73
Longevity Pay	-	-	-	-	\$20.83	\$20.83	\$20.83	\$20.83	\$20.83
TOTAL	\$133.75	\$137.59	\$142.12	\$154.98	\$224.82	\$238.32	\$336.48	\$378.82	\$406.82

<sup>7</sup> Estimated

Average Monthly Fringe Benefit Cost and Total Compensation  
Washoe County Deputy Sheriffs  
1969-1978

Item		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$151.87	\$155.76	\$160.57	\$173.52	\$254.00	\$267.82	\$298.30	\$332.40	\$364.06
Fringe Benefits as Percentage of Average Base Wages		24.4%	24.5%	24.7%	24.5%	30.4%	29.7%	30.7%	30.5%	33.1%
Average Base Wages*		\$623.00	\$634.48	\$650.27	\$707.48	\$835.27	\$901.39	\$972.02	\$1091.02	\$1098.30
Average Monthly Total Compensation		\$774.87	\$790.24	\$810.84	\$881.00	\$1089.27	\$1169.21	\$1270.32	\$1423.42	\$1462.36
Total Compensation Deflated by U.S. C.P.I. **		\$624.90	\$603.24	\$591.85	\$624.82	\$726.18	\$700.13	\$697.98	\$741.36	\$713.35
Total Compensation Deflated by US Private TCI+	Amt.	\$481.29	\$456.79	\$440.67	\$451.79	\$516.24	\$508.35	\$504.10	\$517.61	\$487.45
	Index	100	95	92	94	107	106	105	108	101

\* Derived from Public Employees Retirement System

\*\* CPI - Consumer Price Index (base year 1960)

+ TCI - Total Compensation Index (base year 1960)

Average Monthly Fringe Benefit Costs<sup>1</sup> per Employee  
Washoe County Deputy Sheriffs  
1969-1978

Type of Benefit	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$14.56	\$15.39	\$16.09	\$16.56	\$21.00	\$21.68	\$26.10	\$33.10	\$40.60
Retirement	\$40.50	\$41.24	\$42.27	\$45.99	\$62.65	\$67.60	\$82.62	\$92.74	\$93.36
Unemployment Insurance	-	-	-	-	-	-	-	-	\$18.96
NIC Insurance	\$5.55	\$6.29	\$7.41	\$9.30	\$17.37	\$17.15	\$18.95	\$20.73	\$24.49
Sick Leave	\$14.39	\$14.69	\$15.02	\$16.36	\$24.12	\$26.01	\$28.09	\$31.51	\$31.70
Annual Leave	\$35.94	\$36.68	\$37.51	\$40.84	\$48.23	\$52.02	\$56.18	\$63.02	\$63.39
Holiday Pay	\$25.93	\$26.47	\$27.07	\$29.47	\$34.80	\$37.53	\$40.53	\$45.47	\$45.73
Longevity Pay	-	-	-	-	\$20.83	\$20.83	\$20.83	\$20.83	\$20.83
Uniform Allowance	\$15.00	\$15.00	\$15.00	\$15.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00
TOTAL	\$151.87	\$155.76	\$160.57	\$173.52	\$254.00	\$267.82	\$298.30	\$332.40	\$364.06

<sup>1</sup> Estimated

Average Monthly Fringe Benefit Cost and Total Compensation<sup>≠</sup>  
Truckee Meadows Fire District  
1974-1978

Item		1974-75	1975-76	1976-77	1977-78
Average Monthly Fringe Benefit Cost		\$264.29	\$377.91	\$423.48	\$454.51
Fringe Benefits as Percentage of Average Base Wage		29.3%	38.9%	38.8%	41.4%
Average Base Wages*		\$901.39	\$972.02	\$1091.02	\$1098.30
Average Monthly Total Compensation		\$1165.68	\$1349.93	\$1514.50	\$1552.81
Total Compensation Deflated by U.S. C.P.I.**		\$698.01	\$741.72	\$788.80	\$757.47
Total Compensation Deflated by U.S. Private T.C.I. +	Amount	\$506.82	\$535.69	\$550.73	\$517.60
	Index	100	106	109	102

\* Derived from Public Employees Retirement System

\*\* C.P.I. - Consumer Price Index

+ T.C.I. - Total Compensation Index

≠ Estimated

Average Monthly Fringe Benefit Costs<sup>\*</sup> per Employee  
Truckee Meadows Fire District  
1974-1978

Type of Benefit	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$21.68	\$26.10	\$33.10	\$40.60
Retirement	\$67.60	\$165.24	\$185.47	\$186.71
Unemployment Insurance	-	-	-	\$18.96
NIC Insurance	\$17.15	\$18.95	\$21.24	\$24.16
Sick Leave	\$24.14	\$26.08	\$29.26	\$29.43
Annual Leave	\$60.35	\$65.18	\$73.11	\$73.54
Holiday Pay	\$37.53	\$40.53	\$45.47	\$45.28
Longevity Pay	\$20.83	\$20.83	\$20.83	\$20.83
Uniform Allowance	\$15.00	\$15.00	\$15.00	\$15.00
TOTAL	\$264.29	\$377.50	\$423.48	\$454.51

<sup>\*</sup> Estimated



AVERAGE MONTHLY FRINGE BENEFIT COST\* AND TOTAL COMPENSATION\*  
CITY OF RENO REGULAR NON-UNIFORMED EMPLOYEES

1960 - 1978

Item	1960 -61	1964 -65	1968 -69	1969 -70	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77	1977 -78	
Average Monthly Fringe Benefit Cost	\$ 85.03	\$116.21	\$139.51	\$156.72	\$173.14	\$193.04	\$211.40	\$244.81	\$269.79	\$305.90	\$326.44	\$351.02	
Fringe Benefit as Percentage of Average Base Wages	20.0%	21.6%	22.4%	22.9%	22.8%	23.5%	23.5%	24.9%	24.7%	26.5%	27.3%	27.9%	
Average Base Wages**	\$424.88	\$537.06	\$623.37	\$682.90	\$760.89	\$822.37	\$900.88	\$983.15	\$1090.19	\$1152.41	\$1197.80	\$1255.97	
Average Monthly Total Compensation	\$509.91	\$653.27	\$762.88	\$839.62	\$934.03	\$1015.41	\$1112.28	\$1227.96	\$1359.98	\$1458.31	\$1524.24	\$1606.99	
Total Comp- ensation Deflated by U.S. CPI	\$509.91	\$622.16	\$652.03	\$677.11	\$713.00	\$741.18	\$788.85	\$818.64	\$814.36	\$801.27	\$793.88	\$783.90	
Total Comp- ensation Deflated by U.S. Private TCI+	Amt	\$509.91	\$558.35	\$492.18	\$521.50	\$539.90	\$552.85	\$570.40	\$581.97	\$591.30	\$578.69	\$554.27	\$535.66
	Index	100	109	97	102	106	108	112	114	116	113	109	105

/ Consumer Price Index (1960 base)  
 + Total Compensation Index (1960 base)  
 \* Estimated  
 \*\* Derived from Public Employees Retirement System Data

AVERAGE MONTHLY FRINGE BENEFIT COST PER EMPLOYEE  
CITY OF RENO REGULAR NON-UNIFORMED EMPLOYEES

1960 - 1978

Type of Benefit	1960 -61	1964 -65	1968 -69	1969 -70	1970 -71	1971 -72	1972 -73	1973 -74	1974 -75	1975 -76	1976 -77	1977 -78
Health Insurance	\$12.04	\$12.64	\$14.08	\$14.93	\$15.77	\$16.49	\$16.97	\$18.06	\$23.53	\$31.66	\$38.10	\$47.38
NIC Insurance	\$ 7.86	\$ 8.22	\$ 6.98	\$ 6.76	\$ 8.29	\$10.53	\$13.60	\$20.65	\$18.86	\$22.93	\$27.43	\$30.65
Retirement	\$21.24	\$30.88	\$37.40	\$40.97	\$45.65	\$49.34	\$54.05	\$68.82	\$76.31	\$92.19	\$95.82	\$100.48
Unemployment Insurance	-	-	-	-	-	-	-	-	-	-	-	-
Sick Leave	\$ 9.84	\$12.43	\$14.43	\$15.80	\$17.58	\$20.56	\$22.52	\$24.56	\$27.24	\$28.80	\$29.96	\$31.40
Annual Leave	\$16.49	\$24.86	\$35.88	\$39.28	\$43.70	\$51.40	\$56.30	\$61.40	\$68.10	\$72.00	\$74.90	\$78.50
Holiday Pay	\$17.56	\$22.18	\$25.74	\$28.18	\$31.35	\$33.92	\$37.16	\$40.52	\$44.95	\$47.52	\$49.43	\$51.81
Longevity	-	\$ 5.00	\$ 5.00	\$10.80	\$10.80	\$10.80	\$10.80	\$10.80	\$10.80	\$10.80	\$10.80	\$10.80
Uniform Allowance	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TOTAL	\$85.03	\$116.21	\$139.51	\$156.72	\$173.14	\$193.04	\$211.40	\$244.81	\$269.79	\$305.90	\$326.44	\$351.02

NS - Not Significant

Estimated Monthly Fringe Benefit Cost and Total Compensation  
City of Reno Firemen  
1960-1978

Item		1960-61	1964-65	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Median Fringe Benefit Cost		\$96.93	\$128.00	\$165.29	\$181.55	\$190.99	\$206.92	\$218.53	\$244.82	\$259.14	\$298.87	\$316.38	\$467.77
Fringe Benefits as Percentage of Median Base Wages		23.7%	24.6%	26.4%	27.3%	27.1%	27.6%	27.5%	28.8%	28.7%	30.2%	32.2%	40.4%
Estimated Median Base Wages *		\$408.24	\$520.36	\$626.52	\$663.88	\$704.16	\$748.44	\$793.76	\$849.76	\$903.76	\$990.52	\$984.00	\$1157.44
Estimated Median Total Compensation		\$505.17	\$648.36	\$791.81	\$845.43	\$895.15	\$955.36	\$1012.29	\$1094.58	\$1162.90	\$1289.39	\$1300.38	\$1625.21
Total Compensation Deflated by U.S. C.P.I. **		\$505.17	\$617.49	\$676.76	\$681.80	\$683.32	\$697.34	\$717.94	\$729.72	\$696.35	\$708.46	\$677.28	\$792.79
Total Compensation Deflated by U.S. Private T.C.I. +	Amount	\$505.17	\$554.15	\$510.84	\$525.11	\$517.42	\$519.22	\$519.12	\$518.76	\$505.61	\$511.66	\$472.87	\$541.74
	Index	100	109	101	104	102	103	103	103	100	101	94	107

\* Derived from City Personnel data

\*\* Consumer Price Index (base year 1960)

+ Total Compensation Index (base year 1960)

Estimated Monthly Fringe Benefit Cost per Employee  
City of Reno Firemen  
1960-1978

Type of Benefit	1960-61	1964-65	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$12.04	\$12.64	\$14.08	\$14.93	\$15.77	\$16.49	\$16.97	\$18.06	\$23.53	\$31.66	\$38.10	\$47.38
NIC Insurance	\$7.55	\$7.96	\$7.02	\$6.57	\$7.68	\$9.58	\$11.99	\$17.84	\$15.64	\$19.71	\$22.53	\$28.24
Retirement	\$20.41	\$29.92	\$37.59	\$43.15	\$45.77	\$48.65	\$51.59	\$63.73	\$67.78	\$84.19	\$83.64	\$196.76
Unemployment Insurance	-	-	-	-	-	-	-	-	-	-	-	-
Sick Leave	\$9.44	\$12.03	\$14.50	\$15.36	\$16.28	\$18.72	\$19.84	\$21.24	\$22.60	\$24.76	\$24.60	\$29.12
Annual Leave	\$15.66	\$24.00	\$36.23	\$38.35	\$40.65	\$46.80	\$49.60	\$53.10	\$55.50	\$61.90	\$61.50	\$72.80
Holiday Pay	\$16.83	\$21.45	\$25.87	\$27.39	\$29.04	\$30.88	\$32.74	\$35.05	\$37.09	\$40.85	\$40.59	\$48.05
Longevity	-	\$5.00	\$5.00	\$10.80	\$10.80	\$10.80	\$10.80	\$10.80	\$10.80	\$10.80	\$16.25	\$16.25
Uniform Allowance	\$15.00	\$15.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$29.17	\$29.17
TOTAL	\$96.93	\$128.00	\$165.29	\$181.55	\$190.99	\$206.92	\$218.53	\$244.82	\$259.14	\$298.87	\$316.39	\$467.77

Estimated Monthly Fringe Benefit Cost and Total Compensation  
City of Reno Policemen  
1960-1978

Item		1960-61	1964-65	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Median Fringe Benefit Cost		\$100.88	\$134.79	\$174.77	\$188.22	\$211.65	\$229.39	\$241.94	\$278.20	\$295.60	\$341.09	\$374.59	\$407.86
Fringe Benefits as Percentage of Median Base Wages		23.5%	24.2%	25.8%	26.3%	26.2%	26.8%	26.7%	27.9%	27.7%	29.1%	30.0%	30.4%
Estimated Median Base Wages *		\$430	\$557	\$677	\$717	\$809	\$857	\$906	\$998	\$1069	\$1171	\$1247	\$1340
Estimated Median Total Compensation		\$530.88	\$691.79	\$851.77	\$905.22	\$1020.65	\$1086.39	\$1147.94	\$1276.20	\$1364.60	\$1512.09	\$1621.59	\$1747.86
Total Compensation Deflated by U.S. C.P.I. /		\$530.88	\$658.85	\$728.01	\$730.02	\$779.12	\$792.99	\$814.14	\$850.80	\$817.13	\$830.82	\$844.58	\$852.61
Total Compensation Deflated by U.S. Private T.C.I. **	Amount	\$530.88	\$591.27	\$549.52	\$562.25	\$589.97	\$590.43	\$588.69	\$604.83	\$593.30	\$600.04	\$589.67	\$582.62
	Index	100	111	103	106	111	111	111	114	112	113	111	110

\* Derived from City Personnel Data

\*\* Total Compensation Index (base year 1960)

/ Consumer Price Index (base year 1960)

Estimated Monthly Fringe Benefit Cost per Employee  
City of Sparks Firemen  
1961-1978

Type of Benefit	1961-62	1964-65	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Health Insurance	\$14.62	\$15.05	\$16.19	\$16.77	\$17.50	\$25.15	\$33.18	\$38.04	\$44.22	\$51.03	\$54.26	\$64.68	\$69.17
NIC Insurance	\$7.42	\$7.29	\$6.04	\$6.14	\$6.19	\$7.19	\$8.44	\$11.62	\$17.76	\$15.99	\$19.75	\$23.87	\$27.95
Retirement	\$20.62	\$27.38	\$31.50	\$32.90	\$40.63	\$42.86	\$42.86	\$50.03	\$63.44	\$69.30	\$84.38	\$88.61	\$97.36
Unemployment Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-
Sick Leave	\$11.89	\$13.73	\$15.11	\$15.80	\$19.55	\$20.61	\$20.61	\$24.05	\$26.45	\$28.90	\$31.00	\$32.60	\$35.80
Annual Leave	\$26.32	\$30.40	\$33.46	\$34.99	\$39.88	\$42.02	\$42.02	\$49.06	\$53.96	\$58.96	\$63.24	\$66.50	\$73.03
Holiday Pay	\$17.03	\$19.67	\$21.65	\$22.64	\$25.81	\$27.19	\$27.19	\$31.75	\$34.91	\$38.15	\$40.92	\$43.03	\$47.26
Longevity	\$5.00	\$5.00	\$5.00	\$5.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
Uniform Allowance	\$15.00	\$15.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00
TOTAL	\$117.90	\$133.52	\$153.95	\$159.24	\$184.56	\$200.02	\$209.30	\$239.55	\$275.74	\$297.33	\$328.55	\$354.39	\$385.57

Estimated Monthly Fringe Benefit Cost and Total Compensation  
City of Sparks Policemen  
1961-78

Item		1961-62	1964-65	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
Median Fringe Benefit Cost		\$140.58	\$160.19	\$183.38	\$189.87	\$220.38	\$237.58	\$247.07	\$288.12	\$330.99	\$354.51	\$392.60	\$421.38	\$440.15
Fringe Benefits as Percentage of Median Base Wages		29.1%	28.7%	29.8%	29.5%	30.0%	30.8%	32.0%	31.3%	32.8%	32.5%	33.5%	34.3%	33.9%
Estimated Median Base Wages *		\$483.52	\$559.00	\$615.66	\$643.58	\$733.88	\$772.16	\$772.16	\$919.28	\$1008.32	\$1091.08	\$1172.66	\$1229.50	\$1299.62
Estimated Median Total Compensation		\$624.10	\$719.19	\$799.04	\$833.45	\$954.26	\$1009.74	\$1019.23	\$1207.40	\$1339.31	\$1445.59	\$1565.26	\$1650.88	\$1739.77
Total Compensation Deflated by U.S. C.P.I. **		\$617.92	\$684.94	\$707.12	\$712.35	\$769.56	\$770.79	\$743.96	\$856.31	\$892.87	\$865.62	\$860.03	\$859.83	\$848.67
Total Compensation Deflated by U.S. Private T.C.I. +	Amount	\$605.92	\$614.69	\$570.74	\$537.71	\$592.70	\$583.66	\$553.93	\$619.18	\$634.74	\$628.52	\$621.13	\$600.32	\$579.92
	Index	100	101	94	89	98	96	91	102	105	104	103	99	96

\* Derived from City personnel data

\*\* CPI - Consumer Price Index (base year 1960)

+ TCI - Total Compensation Index (base year 1960)

Estimated Monthly Fringe Benefit Cost per Employee  
City of Sparks Policemen  
1961-1978

Type of Benefit	1961-62	1964-65	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-45	1975-76	1976-77	1977-78
Health Insurance	\$14.62	\$15.05	\$16.19	\$16.77	\$17.50	\$25.15	\$33.18	\$38.04	\$44.22	\$51.03	\$54.26	\$64.78	\$69.17
NIC Insurance	\$8.70	\$8.55	\$7.08	\$7.21	\$7.27	\$8.42	\$9.88	\$13.88	\$21.17	\$18.88	\$23.34	\$28.16	\$31.71
Retirement Insurance	\$24.18	\$32.14	\$36.94	\$38.61	\$47.70	\$50.19	\$50.19	\$59.75	\$75.62	\$81.83	\$99.68	\$104.51	\$104.52
Unemployment Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-
Sick Leave	\$13.89	\$16.05	\$17.71	\$18.49	\$22.95	\$24.15	\$24.15	\$28.75	\$31.50	\$34.10	\$36.65	\$38.40	\$40.60
Annual Leave	\$39.26	\$45.37	\$50.05	\$52.26	\$59.67	\$62.79	\$62.79	\$74.75	\$81.90	\$88.66	\$95.29	\$99.84	\$105.56
Holiday Pay	\$19.98	\$23.03	\$25.41	\$26.53	\$30.29	\$31.88	\$31.88	\$37.95	\$41.58	\$45.01	\$48.38	\$50.69	\$53.59
Longevity	\$5.00	\$5.00	\$5.00	\$5.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
Uniform Allowance	\$15.00	\$15.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00
TOTAL	\$140.58	\$160.19	\$183.38	\$189.87	\$220.38	\$237.58	\$247.07	\$288.12	\$330.99	\$354.51	\$392.60	\$421.38	\$440.15



Average Monthly Fringe Benefit Cost and Total Compensation  
City of Fallon Municipal Employees  
1966-1977

Item		1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Monthly Fringe Benefit Cost		\$92.93	\$94.61	\$103.74	\$111.14	\$116.33	\$134.59	\$127.04	\$174.39	\$190.06	\$194.02	\$227.56	\$236.22
Fringe Benefit as Percentage of Average Base Wages		17.9%	17.8%	17.8%	17.6%	17.9%	19.6%	20.1%	21.8%	21.8%	23.0%	23.0%	25.3%
Average Base Wages *		\$518.60	\$532.75	\$582.55	\$631.47	\$648.80	\$685.65	\$630.75	\$798.65	\$871.30	\$842.80	\$991.10	\$935.25
Average Monthly Total Compensation		\$611.53	\$627.36	\$686.29	\$742.61	\$765.13	\$820.24	\$757.79	\$973.04	\$1061.36	\$1036.82	\$1218.66	\$1171.47
Total Compensation Deflated by U.S. C.P.I. **		555.94	555.19	586.57	598.88	584.07	598.72	537.44	648.69	635.54	569.68	634.72	571.45
Total Compensation Deflated by U.S. Private T.C.I. +	Amount	463.28	448.11	442.77	461.25	442.27	445.78	388.61	461.16	461.46	411.44	443.15	390.49
	Index	100	97	96	100	95	90	84	100	100	89	96	84

\* Derived from Public Employees Retirement System data

\*\* CPI - Consumer Price Index (1960 base)

+ TCI - Total Compensation Index (1960 base)

Average Monthly Fringe Benefit Cost per Employee<sup>\*</sup>  
City of Fallon Municipal Employees  
1966-1977

Type of Benefit	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Health Insurance	\$5.77	\$5.77	\$6.80	\$6.80	\$8.45	\$19.28	\$19.62	\$19.62	\$24.35	\$23.14	\$23.75	\$27.42
NIC Insurance	\$7.26	\$6.12	\$6.52	\$6.25	\$7.07	\$8.78	\$9.52	\$16.77	\$15.07	\$16.77	\$22.70	\$19.73
Retirement	\$29.82	\$31.97	\$34.95	\$37.89	\$38.93	\$41.14	\$37.85	\$55.91	\$60.99	\$67.42	\$79.29	\$74.82
Unemployment Insurance	-	-	-	-	-	-	-	-	-	-	-	-
Sick Leave	\$9.98	\$10.26	\$11.21	\$12.17	\$12.51	\$13.22	\$12.14	\$18.42	\$20.11	\$19.45	\$22.84	\$21.59
Annual Leave	\$19.96	\$20.51	\$22.42	\$24.33	\$25.01	\$26.43	\$24.27	\$30.74	\$33.57	\$32.46	\$38.13	\$54.05
Holiday Pay	\$19.44	\$19.98	\$21.84	\$23.70	\$24.36	\$25.74	\$23.64	\$32.93	\$35.97	\$34.78	40.85	\$38.61
Longevity	-	-	-	-	-	-	-	-	-	-	-	-
Uniform Allowance	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)	(\$12.50)
TOTAL	\$92.93	\$94.61	\$103.74	\$111.14	\$116.33	\$134.59	\$127.04	\$174.39	\$190.06	\$194.02	\$227.56	\$236.22

\* Estimated

APPENDIX G

REVIEW OF PUBLIC EMPLOYEE COLLECTIVE BARGAINING  
LEGISLATION AMONG WESTERN STATES



## U.S WAGE AND PRICE INDEXES, 1960-1977

Year	Consumer Price Index	U.S. Private Business Average Monthly Wage \$	U.S. Private Business Average Wage Index	U.S. Private Business Hourly Compensation Index
1960	100	\$334.46	100	100
1961	101	342.40	102	103
1962	102	355.20	106	107
1963	103	364.80	109	110
1964	105	377.60	113	117
1965	107	392.00	117	124
1966	110	409.60	122	132
1967	113	428.80	128	140
1968	117	456.00	136	155
1969	124	486.40	145	161
1970	131	515.20	154	173
1971	137	550.40	165	184
1972	141	587.20	176	195
1973	150	627.20	188	211
1974	167	675.20	202	230
1975	182	726.40	217	252
1976	192	779.20	233	275
1977	205	840.00	251	300

Source: U.S. Department of Labor, Bureau of Labor Statistics

## APPENDIX G

REVIEW OF PUBLIC EMPLOYEE COLLECTIVE BARGAINING  
LEGISLATION AMONG WESTERN STATES

Earlier in this report, the collective bargaining processes of Nevada and eight neighboring states were discussed. This review compares the collective bargaining legislation of Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, and Washington, using ten criteria that deal with the scope and provisions of their respective bargaining laws. Arizona has no separate act to cover public sector employees, and Utah's is limited, as is that of Idaho. Of the states studied, California passed legislation first in 1968, and Utah has approved limited collective bargaining coverage fairly recently, in 1975. The areas used in this study for comparison of legislation are listed below.

Areas of Coverage by Public Sector Collective  
Bargaining Legislation

1. Year and Title of Public Sector Bargaining Act
2. Specific Employee Coverage of the Act
3. Powers and Duties of Enforcement Administrative Body
4. Collective Bargaining Rights of Public Employees
5. Voluntary or Compulsory Dispute Resolving Procedure
6. Responsibility for Cost of Mediation and Conflict Resolution
7. Union Security
8. Management Rights
9. Role of the Governor
10. Scope of Bargaining

1. Year and Title of Public Sector Bargaining Act

Arizona:

No separate act.

California:

Meyers-Miliias-Brown Act, (for local employees), 1968.

State Employer-Employee Relations Act, 1977.

Meeting and Negotiating in Public Education Employment, 1975  
California Government Code, Sections 3500-3549.

Hawaii:

Collective Bargaining in Public Employment, 1970  
Hawaii Revised Statutes, Chapter 89

Idaho:

Collective Bargaining for Firefighters, 1970  
 Collective Bargaining for Teachers, 1971  
Idaho Code, 44-1800, 33-1271

Montana:

Collective Bargaining for Public Employees, 1973  
Revised Code of Montana, Chapter 59-1600

Nevada:

Local Government Employee-Management Relations Act, 1969  
Nevada Revised Statutes, Chapter 288

Oregon:

Collective Bargaining, 1973  
Oregon Revised Statutes, 243.650-243.782

Utah:

Fire Fighters Negotiations, 1975  
Utah Code Annotated, 34-20a  
 \* A note in the Utah Code Annotated states, "Utah  
 Fire Fighters Negotiations Act is unconstitutional  
 because it provided for a delegation of legislative  
 power."

Washington:

Public Employees' Collective Bargaining, 1967 (largely  
 amended in 1975).  
Revised Code of Washington, Chapter 41.56

2. Specific Employee Coverage of the Act

Arizona: (NA)

California:

Considering all three collective bargaining provisions,  
 the following employees are included: those employed by  
 a county, city, district, or other political subdivision  
 of the state; fire department, state, public schools.

Those specifically excluded from coverage are management and confidential employees, those elected by popular vote and those appointed by the governor.

Hawaii:

Employees covered by the statute are those who are employed by the state, county, city, school district, and public institutions of higher education. Excluded are elected and appointed officials, members of boards, commissions, top level managerial and administrative personnel, those concerned with confidential matters affecting employee-employer relations, certain part-time and temporary employees, those on the executive staff of the governor or mayor, on certain legislative staffs, and several other specific employee categories.

Idaho:

Only firefighters, except supervisors, and teachers are covered in separate acts.

Montana:

Employees covered include those employed by the state and any political subdivision; this includes school districts, public and quasi-public corporations, the state system of higher education. Excluded are elected officials, those appointed by the governor, supervisory and management officials, R.N.'s working for health care facilities, school district clerks, school administrators, professional engineers, and engineers in training.

Nevada:

Employees of local governments are covered (any political subdivision of the state or any public or quasi-public corporation, school districts, hospital districts, or special districts). Excluded are elected and appointed employees; however, employees near top management can and do organize. Also excluded are confidential employees and employees of the government's personnel departments.

Oregon:

Employees of the state, any political subdivision (includes cities, counties, community colleges, school



districts, public and quasi-public corporations, special district). Excluded are elected officials, those serving on boards, commissions, confidential, and supervisory employees.

Utah:

The only public employees who have a state law providing for collective bargaining are firefighters employed by fire departments of any city, town or county.

Washington:

Employees are covered who are employed by counties, city corporations, or any political subdivision of the state, school districts. Whether state employees are covered is unclear. There are several court decisions given in the statute books which state: "While the individual state agencies are empowered to bargain with state civil service employees with regard to working conditions and the Personnel Board is empowered to develop pay plans, the only executive officer empowered to exercise discretion is the Budget Director." Another court decision states: "For purposes of the Public Employees' Collective Bargaining Act (Chapter 41.56), which applies to county but not state employees..."

3. Powers and Duties of Enforcement Administrative Body

Arizona: (NA)

California:

For local employees - Division of Conciliation within the Department of Industrial Relations. The division can mediate a dispute, recommend solutions where there is an absence of procedure for dispute solving at the local level. For state employees and those employed by the public school system - Public Employment Relations Board to become effective July 1, 1978. This is a three-member board appointed by the governor with the advice and consent of the Senate. The members are full-time salaried members. Its powers are listed in Section 3541.3 (14 specified powers or duties) which include: to determine, in a disputed case, or otherwise approve, appropriate

bargaining units, to determine whether an item is within the scope of representation; supervise employee representation elections; establish a list of mediators etc.; establish procedure regulations for reviewing proposals to change unit determinations; conduct relevant studies; adopt rules and regulations to carry out the chapter; has power to issue a decision and order directing an offending party to cease and desist from an unfair practice, and take affirmative action as will effectuate policies of the chapter. The board does not have the power to enforce agreements between parties.

Hawaii:

Hawaii Public Employment Relations Board - three members appointed by the governor - one representative of labor, one of management, one from the public. Members are full-time salaried employees. Duties are enumerated and include: to establish procedures for and resolve any dispute concerning appropriate bargaining units; to establish procedures and supervise elections concerning exclusive employee representatives; to conduct proceedings on complaints of prohibited practices; to establish a list of possible mediators, etc.; conduct studies and recommend to legislative bodies; to establish rules and regulations relative to the exercise of its powers and authority to govern proceedings before it. The board on its own may determine that an impasse exists on any matter in a dispute. Hawaii also has an Office of Collective Bargaining within the governor's office, which conducts negotiations with the exclusive representatives of employee organizations and designates the employer spokesmen for each negotiation.

\* (Note: Hawaii's board has certain other powers such as the authority to appoint an arbitrator if the parties to a dispute fail to do so. Other states' administrative bodies also have such authorities. However, to avoid duplication, these will be discussed under Section 5 that deals with the dispute-solving process.)

## Idaho:

For firefighters - the Department of Labor and Industrial Services has the duty to appoint a third member of the fact-finding commission if the other members cannot agree. For teachers, the state superintendent of public instruction shall appoint the fact-finders if the parties cannot agree.

## Montana:

The Board of Personnel Appeals is appointed by the governor. The board establishes grievance procedures. The board duties and powers include: the establishment of rules on submitting a petition for representation and may hold an election to determine exclusive representative if a question exists; to decide appropriate units for collective bargaining; shall issue complaints of unfair labor practices and settle such claims; the board has subpoena power; the board is to maintain a list of qualified mediators, etc.; shall establish a course of education for training of fact-finders and arbitrators; the board may initiate fact-finding if neither party does so after 30 days of recognition of an exclusive representative of employees or upon the expiration of an existing collective bargaining agreement if a dispute exists at that time.

## Nevada:

Local Government Employee-Management Relations Board - three members appointed by the governor (not full-time). The board may make rules governing proceedings before it and procedures for fact-finding, and may issue advisory guidelines for use by employers in recognition and determination of employee organizations and bargaining units. The board hears appeals by employee organizations if employers refuse to recognize them. The board may hold an election to determine representation if it deems necessary. The board may hear any complaint arising out of interpretation of or performance under this Chapter; the board may issue subpoenas; also, it determines any

dispute involving prohibited practices. Nevada also has an Employee-Management Relations Advisory Committee (10 members appointed by the governor). This committee conducts interviews for Board appointments and files a regular report to the legislature.

Oregon:

Employment-Relations Board - appointed by the governor. Members are full-time employees. The board determines questions concerning the application of sections directing bargaining. Powers include: to investigate complaints of unfair labor practices and solve such disputes; to determine representative organizations through an election if necessary; it may on its own determine that the public employer and employee representative have failed to achieve an agreement and shall then assign a mediator; it may also initiate fact-finding if it deems it appropriate; the board shall maintain a list of qualified fact-finders; it may initiate binding arbitration where the right of employees to strike is prohibited; if an employer petitions the board for a declaration that a strike is or would be unlawful, the board investigates this and holds hearing and makes a decision. The board is to establish procedures for and resolve any disputes concerning the designation of an appropriate bargaining unit and the designation of an exclusive representative, for which the board may hold elections if necessary; the board is to conduct studies on problems relating to public employment; hold such hearings, administer oaths, examine witnesses, issue subpoenas necessary to carry out its functions.

Utah:

No administrative board.

Washington:

Public Employment Relations Commission: three members appointed by the governor with the advice and consent of the Senate. The members are part-time employees of the commission. The powers and duties of the commission are listed in 41.58.020 and include: to assist employers and

employees in settling labor disputes through mediation and fact-finding; the commission may offer its services in any labor dispute either upon its own motion or upon the request of one of the parties whenever in its judgment such dispute threatens to cause a substantial disruption to public welfare; the commission shall determine appropriate units, and exclusive representatives in the case of disagreement; shall hold elections to do this if necessary; promulgate regulations and rules to administer this chapter; prevent unfair labor practices and issue remedial orders. The commission may issue subpoenas to do the above; may on its own motion invoke the jurisdiction of the superior court to issue an appropriate order for the parties to a dispute to submit the dispute to proper procedure in the case of uniformed employees. For public school employees, the commission shall determine which items are mandatory subjects for bargaining if there is a dispute.

#### 4. Collective Bargaining Rights of Public Employees

Arizona: (NA)

California:

For local employees - there is an obligation to "meet and confer" upon request of either party to endeavor to reach an agreement, but court cases in 1972 and 1974 did not affirm a "right" to bargain.

Hawaii:

Public employees have a right to form, join employee organizations for the purpose of bargaining collectively.

Idaho:

Firefighters shall have the right to bargain collectively. Teachers - the Board of Trustees shall enter into a negotiation agreement upon request of teachers' organizations.

Montana:

Public employees shall have and shall be protected in the exercise of the right to ... bargain collectively.

## Nevada:

It is the duty of every local government employer to negotiate in good faith concerning mandatory subjects of bargaining set forth.

## Oregon:

It is the right of public employees to organize and there is full acceptance of the principle and procedure of collective negotiation. Public employees have the right to form, join and participate in the activities of labor organizations for the purpose of representation and collective bargaining.

## Utah:

Firefighters have the right to bargain collectively.

## Washington:

Public employees have the right to organize and designate representatives for the purpose of collective bargaining. School district employees have the right to bargain collectively through representatives of their own choosing.

5. Voluntary or Compulsory Dispute Resolving Procedure

## Arizona: (NA)

## California:

For local employees, procedure is to be decided by the local public agencies (employers). Parties to a dispute may together request the Division of Conciliation of the Department of Industrial Relations to provide mediation. This is voluntary. For state employees and public school employees - parties to a dispute may ask the board to provide a mediator, or they may between themselves agree upon their own mediation process. The process is most detailed for public school employees: the mediator can declare, after 15 days of his appointment, that fact-finding is appropriate, then either party may request that differences be submitted to a fact-finding panel. Each of the parties shall select a person to serve. The board shall then select a chairman of the panel, but the chairman shall not be one who has served as the mediator.

The fact-finding panel's findings of fact and recommendations are advisory only. The mediator may continue mediation efforts on the basis of facts and recommendations of the fact-finding panel.

Hawaii: .

Any collective bargaining agreement reached by a public employer and employee organization shall be subject to ratification by the employees concerned. An agreement may contain a grievance procedure and an impasse procedure culminating in final and binding arbitration.

In the absence of a grievance procedure in an agreement, either party may submit the dispute to the board for a final and binding decision. The procedure to be followed by the board: within three days after the date of impasse notification, the board shall appoint a mediator. If the dispute continues for 15 days after the impasse is declared, the board shall appoint within three days a fact-finding board (of not more than three members). The fact-finding board is to make recommendations. If the dispute is unresolved five days after transmittal of the findings of fact and recommendations of the fact-finding board, the board shall publish the findings and recommendations for public information if the dispute has not been referred to final and binding arbitration. If the dispute continues for 30 days after the impasse date, the parties may mutually agree to submit their differences to final and binding arbitration. A panel consisting of one person selected by each party and the third selected by the other two shall be established. The board shall appoint the panel if the parties fail to do so. The arbitration panel shall have the power to issue subpoenas. If the parties have not mutually agreed to arbitration, either party may take whatever lawful action it deems necessary to end the dispute; however, no action shall involve disruption of public services within 60 days after the fact-finding panel has made its findings and recommendations public. A strike is legal for public

employees, except for those employees not in an appropriate bargaining unit for which an exclusive representative has been certified or those in a unit for which the resolution of disputes is referral to final and binding arbitration. Other public employees may strike if other dispute-resolving procedures have been met and 60 days have elapsed since the fact-finding panel made its findings public. The exclusive representative must also give a 10 day notice of its intent to strike to the board and to its employers.

Idaho:

Firefighters: In the event that the bargaining agent and the corporate authorities are unable 30 days from their first meeting to reach an agreement on a contract, unresolved issues shall be submitted to a fact-finding commission. The bargaining agent and the corporate authority shall each select a member and these two members shall select a third member to the commission. If after 10 days the two members are unable to agree upon a third member, the Director of the Department of Labor and Industrial Services shall appoint the third member upon the request of either party to the dispute. Whenever wages, or any other matter requiring appropriation of money by any city, county, etc., are included as a matter of collective bargaining, the bargaining agent shall serve written notice at least 90 days before the last day in which money can be appropriated. The fact-finding commission shall hold hearings and make its recommendations. Strikes are prohibited during the term of a contract.

Teachers: In the event the parties are not able to agree, one or more mediators may be appointed. The procedure of appointment and compensation shall be determined by the parties. If mediation fails to bring about agreement, the issues may be submitted to fact-finding by request of either party. One or more fact-finders shall



be appointed by the parties by mutual agreement. If such agreement cannot be reached within 30 days, the state superintendent of public instruction shall make such appointment. The fact-finder has the authority to make procedures, rules, hold hearings. Within 30 days following his appointment, the fact-finder shall submit a report of findings of fact and recommendations.

Montana:

An agreement between a public employer and an employee representative may contain a grievance procedure culminating in final and binding arbitration. After a reasonable period of negotiation or on the expiration of a collective bargaining agreement, if a dispute concerning the agreement exists, the parties shall request mediation if the parties are the public employer and a labor organization. If upon expiration of a collective bargaining agreement or 30 days following certification or recognition of an exclusive representative, a dispute exists, either party may petition the board to initiate fact-finding. Within three days of receipt of the petition, the board is to submit a list of five persons from which the parties pick one to serve as fact-finder. If no request for fact-finding is made, the board may initiate fact-finding on its own. The fact-finder immediately shall set up hearings and may ask the board to issue subpoenas. No later than 20 days from his day of appointment the fact-finder shall make written findings of fact and recommendations. He may make this report public five days after it is given to the parties. If the dispute is not resolved 15 days after the report is submitted to the parties, the report shall be made public. The parties may voluntarily agree to submit issues to final and binding arbitration and if an agreement is reached, the arbitration shall supersede fact-finding procedures set forth in this section. Anyone who serves as fact-finder must have taken the course set up by the board for training.

## Nevada:

Whenever an employee organization wants to negotiate with a local employer, it shall give written notice. If the subject of negotiation requires budgeting of money by the local government employer, the employee organization shall give notice by January 15. The parties shall promptly commence negotiations. First, they shall set up procedures. If the parties do not agree by February 1 upon the procedures, and if the parties have not agreed on all substantive issues, they shall select a mediator. If the parties cannot agree on a mediator, the labor commissioner shall appoint one. If by April 1 the parties have not reached agreement, either party at any time up to May 1, may submit the dispute to an impartial fact-finder whose findings and recommendations are not binding. If the parties are unable to agree on an impartial fact-finder within five days, either party may request from the American Arbitration Association a list of 7, from which the parties alternatively strike names. A schedule of dates and time for the hearings shall be established before June 15. The fact-finder has subpoena power. He shall report his findings and recommendations within 30 days after the hearings. The parties may agree, before submission of the dispute to fact-finding, to make findings and recommendations on all or any issues final and binding. If the parties do not agree to make them final and binding, the governor shall have the power to do so, in certain conditions. (See Section 9.) For firefighters, the time limit is March 15 rather than May 1 for submission to a fact-finder. For firefighters only, if the parties have not agreed to make the findings and recommendations final and binding upon all issues and do not otherwise resolve their dispute, they shall, within 10 days after the fact-finder's report, submit the issues still in dispute to an arbitrator selected in the manner provided above and shall have the same powers provided for fact-finders. The arbitrator shall, within 10 days

after he is selected, hold a hearing. For firefighters, if the parties do not enter into negotiations or do not agree within 30 days, each party shall submit a single written statement containing its final offer for the unresolved issues. The arbitrator shall, within 10 days after receiving these final offers, accept one of them.

Oregon:

Whenever two or more labor organizations are certified to represent state employees in like classifications, the state and the organizations shall meet and bargain in good faith. An agreement may set forth a grievance procedure culminating in binding arbitration. If after a reasonable period of negotiation over an agreement or after a reasonable time after an exclusive representative has been recognized no agreement has been signed, either party shall notify the board of the status of negotiations. Or the board on its own motion may determine this. Upon notification, the board shall assign a mediator. Mediation shall be provided by the State Conciliation Service as provided in ORS 662.405. If the dispute has not been settled after 15 days of mediation, either party may petition the board to initiate fact-finding. Or the board may, on its own, initiate fact-finding. The parties to the dispute may at any time submit issues to final and binding arbitration. The public employer and employee organization may select their own fact-finder. In the case where the parties have not selected their own fact-finder within five days after notification by the board, the board shall submit a list of five, from which the parties select a fact-finder by alternatively striking names off the list. They may have one fact-finder or a panel of three. If the parties still fail to select a fact-finder, the board shall appoint one. Not more than 30 days from the conclusion of the fact-finding hearings, the fact-finder shall make the findings of fact and recommendations.

The parties have five days to accept. If they don't accept these findings, the board shall publicize the findings and recommendations. A strike is not allowed for public employees who aren't included in an appropriate bargaining unit for which an exclusive representative had been certified, or who is included in a unit which provides for resolution of a labor dispute by referral to final and binding arbitration. Otherwise, it is lawful for public employees to strike after all procedures relating to the resolution of labor disputes have been complied with in good faith and 30 days have elapsed since the board made public the fact-finder's findings and recommendations, and the exclusive representative has given 10 days notice of its intent to the board and its employers. (The court can prohibit a strike if it finds a clear and present danger to the public.) Policemen, firemen, and certain guards may not strike. Provisions in ORS 240.060 providing for compulsory arbitration for these workers are to be liberally construed. The board on its own motion may initiate binding arbitration if public employees are prohibited from striking and a disagreement still exists after fact-finding and if neither party to the dispute petitions the board to initiate arbitration. The parties may select their own arbitrator. If they don't, the same process ensues as was the case of selecting a fact-finder.

Utah:

It is the duty of any corporate authority to meet and collectively bargain within 10 days after receipt of a written notice from a firefighters employee representative. Each bargaining agreement shall contain a no-strike clause. If the parties are unable to reach an agreement within 30 days, all unresolved issues go to arbitration. Within five days after issues go to arbitration each party to the dispute shall name one person to serve as arbitrator. These two select a third person from the list provided by the Federal Mediation and

Conciliation Service. The board's decision is final and binding on all matters except in salary or wage matters, in which case it shall be advisory only.

Washington:

Upon the failure of parties to conclude a collective bargaining agreement, any matter still in dispute may be submitted by either party to the commission for mediation. The parties may request the Public Employment Relations Commission to appoint an arbitrator. The arbitrator shall conduct such arbitration in a manner as provided for in the collective bargaining agreement of the parties. For uniformed public employees (policemen, firemen, etc.) Washington law goes into more detail. Negotiations between the public employer and uniformed personnel shall be commenced at least 5 months prior to the submission of the budget to the legislative body of the public employer. If after 45 days of negotiation an agreement has not been concluded, either party may voluntarily submit matters to mediation - this 45-day time period may be modified by mutual written agreement of the parties. After 10 days of mediation by the Commission, if a dispute still exists, fact-finding is initiated. Each party shall appoint a member within two days and these two select a third member to act as chairman of the fact-finding panel. If the parties cannot select members, the commission shall do so. The fact-finding panel for uniformed personnel have 30 days to make their findings of fact and recommendations. If, after 45 days from the commencement of mediation for uniformed personnel, a dispute still exists an arbitration panel is to be created. Each party submits a list of three to the commission, which picks one from each list. The third member is selected by the other two. If the two members cannot agree on a third member, either party may apply to a superior court of the county for a decision. The panel is considered a state agency for

the purposes of this act. The panel has 20 days for holding a hearing and 15 days after the hearing to make its findings of fact and recommendations. The decision made by the panel shall be final and binding. If either party refuses to submit to these procedures, the Commission, on its own motion, may invoke jurisdiction of the county's superior court to issue an appropriate order. Strikes are prohibited by uniformed personnel. For school district employees: either party may declare an impasse and may request the commission to appoint a mediator. Within five days, the commission shall decide if an impasse exists, and appoint a mediator. The mediator, without the consent of both parties, shall not make findings of fact or recommendations. The parties to the dispute may agree upon their own mediation procedure. If the mediator is unable to effect a settlement within 10 days, either party may request fact-finding, except the time for mediation may be extended by mutual consent. Within five days, the parties shall select a fact-finder. If they are unable to do so, the Commission designates one. Recommendations of the fact-finder are advisory only. These can be made public by either party or the commission if not settled within five days. The parties may agree to substitute, at their own expense, their own procedure for resolving impasses. An agreement between school employees and their employers may include procedures for binding arbitration.

6. Responsibility for Cost of Mediation and Conflict Resolution:

Arizona: (NA)

California:

For local employees - the costs of mediation shall be equally divided by the parties to the dispute.

Hawaii:

The costs of mediation and fact-finding are borne by the board. All other costs, including that of a neutral arbitrator, shall be borne equally by the parties involved.

## Idaho:

Firefighters - Any expenses incurred by the fact-finding commission shall be equally shared by the parties.

Teachers - Compensation of the mediator is to be determined by the parties.

## Montana:

The cost of fact-finding proceedings shall be equally borne by the board and the parties concerned.

## Nevada:

The local government and the employee organization each pays half the cost of fact-finding. Each party shall pay its own cost of preparation and presentation of its case.

## Oregon:

The costs of fact-finding shall be equally borne by the parties involved.

## Utah: -

## Washington:

Parties to a dispute may ask the commission to assist in the provision of an arbitrator, provided the commission shall not collect any fees or charges from such parties for services by the commission under the provisions of this chapter. For uniformed personnel, the costs of each party's appointee is borne by that party. The rest of the costs of fact-finding are borne by the commission.

7. Union Security

## Arizona: (NA)

## California:

Public employees do not have to join an organization, but nothing precludes the parties from agreeing to a maintenance of membership provision (those who are members must remain so for an agreed period of time).

## Hawaii:

Employer shall deduct from the payroll of every employee in the appropriate bargaining unit the amount of service fees and remit this amount to the exclusive representative. This is permitted for any employee organization

chosen as the exclusive representative. Employee may individually present grievances, as provided in other states.

Idaho: -

Montana:

A public employee desiring to avail himself of the right of non-association with a labor organization shall make written application to the Board of Personnel Appeals, which appoints a committee to determine if the employee qualifies (by reason of religion that opposes the joining of a labor organization). However, such employee must pay in lieu of union dues and other assessments to a non-religious charity. Upon written authorization of employee, the employer shall deduct from his pay dues and submit this to the exclusive representative.

Nevada:

Public employees have the right not to join organizations. The employer shall not discriminate among its employees on account of membership or non-membership. The employee may act for himself with respect to any condition of employment, but any action taken on such a request shall be consistent with applicable negotiated agreement.

Oregon:

Any agreements entered into involving union security must safeguard the rights of non-association of employees, based on bona fide religious tenets. Such employees shall pay an amount equal to regular union dues and initiation fees to a non-religious charity. Employees may present grievances to their employer and have such grievances adjusted without intervention of the labor organization if the adjustment is not inconsistent with the terms of a current collective bargaining agreement and the labor organization has been given the opportunity to be present.

Utah: -



## Washington:

The employee may at any time present his grievance to the public employer without intervention of the bargaining representative, if the resulting adjustment is not inconsistent with the collective bargaining agreement and if the representative has been given reasonable opportunity to be present at any initial meeting. A collective bargaining agreement may contain union security provisions, provided nothing in this section shall authorize a closed shop provision and agreements involving union security provisions must safeguard the right of non-association of public employees based on bona fide religious tenets. Such employees shall pay an amount of money equal to regular union dues to a non-religious charity or another charity mutually agreed upon.

For school district employees: They may be required to pay a fee to any employee organization under an agency shop agreement authorized in this chapter. The exclusive bargaining representative shall have the right to have deducted from the salaries of the employees fees and dues. The employee of a school district also has the rights enumerated above.

8. Management Rights

Arizona: (NA)

California:

Consideration of merit, necessity and organization of any services, are defined as prerogatives of management.

Hawaii:

Public employees health fund, retirement system, salary ranges, and longevity ranges are management rights.

Idaho:

Teachers - Nothing contained in the law is intended to conflict with duties vested in the legislature, Board of Education, or Board of Trustees of the School Districts. Each School District Board is entitled, without negotiation or reference to negotiated agreement, to take action

that may be necessary to carry out its responsibilities due to emergencies or Acts of God.

Montana:

The rights of management include such areas as, but are not limited to: direction to employees, hire, promote, transfer, assign and retain employees, relieve employees from work because of inadequate work, maintain efficiency of government operations, determine methods, means of work, job classifications of personnel, take whatever actions necessary to carry out missions of the agency in emergencies, establish methods and processes by which work is performed.

Nevada:

Issues which are reserved to the local government: right to hire, direct, assign or transfer an employee because of lack of work or funds, right to determine appropriate staffing level and work performance standards, except safety considerations; context of workday, quality and quantity of services; means and methods of offering those services, and in an emergency, management is entitled to suspend any collective bargaining agreement for its duration. It is the ultimate responsibility of the public employer to act in the most efficient manner.

Oregon: -

Utah:

If a matter to be discussed concerns wages or any other matter requiring the appropriation of money by any city, town, etc., the employee representative shall give at least 120 days notice before the end of the appropriation period of its request for collective bargaining.

Washington:

Nothing requires any public employer to bargain collectively concerning any matter which by ordinance, resolution, or charter of said public employer has been delegated to any civil service commission or personnel board similar in scope and authority to the board created by state statute.

9. Role of Governor

Arizona: (NA)

California:

For state employees - the governor is designated as the representative of the public employer.

Hawaii:

The governor is designated as the employer for the purposes of collective bargaining legislation. The state also has an Office of Collective Bargaining in the Governor's Office to assist the governor in formulating plans, philosophy, reviews, compilation of data, and annual report.

Idaho: -

Montana:

The chief executive officer of the state shall represent the public employer in collective bargaining.

Nevada:

The governor shall have the emergency power and authority, at the request of either party to a dispute and prior to the submission of the dispute to fact-finding, to order prior to May 1, that the findings and recommendations of a fact-finder be final and binding. The governor exercises this authority on a case by case basis. Consideration shall be on the basis of his evaluation regarding the best interests of the state, potential fiscal impact both within and outside the political subdivision.

Oregon: -

Utah: -

Washington: -

10. Scope of Bargaining

Arizona: (NA)

California:

For local employees - all matters relating to employment conditions and employer/employee relations, including, but not limited to, wages, hours, and other terms and conditions of employment.

## Hawaii:

Scope of bargaining shall include wages, hours, and other terms and conditions of employment which are subject to negotiations and which are to be embodied in a written agreement.

## Montana:

Wages, hours, fringe benefits and other conditions of employment.

## Nevada:

The scope of mandatory bargaining is limited to salary or wage rates or other forms of direct monetary compensation, sick leave, vacation leave, holidays, other paid or non-paid leaves of absence, insurance benefits, total hours of work day or week, number of days worked per year, discharge and disciplinary procedures, recognition clause, method used to classify employees in the bargaining unit, deduction of dues for the recognized employee organization, protection of employees in the bargaining unit from discrimination because of participation in recognized employee organizations, grievance and arbitration procedures for resolution of disputes related to interpretation or application of collective bargaining agreements, general savings clause, duration of collective bargaining agreements, safety, teacher preparation time, and procedures for reduction in work force.

## Oregon:

Scope of bargaining shall include a compensation plan and other economic benefits, and those employment relations matters which require legislative action or are the subject of Personnel Division rulemaking authority. This section does not apply to any subject which affects only a single agency, institution, or other subordinate unit of the state.

## Utah:

Firefighters have the right to bargain about wages, hours, and other conditions of employment.

## Washington:

The scope of bargaining includes wages, hours and conditions of employment. For school district employees, the commission is to decide which items are mandatory subjects for bargaining if there is a dispute.



## GLOSSARY

**ELASTICITY.** Population elasticity is the ratio of the percentage in revenue or expenditure to the percentage change in population.

**MEAN.** The mean is calculated by summing all of the measurements and dividing the sum by the number of measurements. For example, the mean expenditure for counties in Nevada is calculated by summing the total expenditures for all counties and dividing by seventeen.

**MEDIAN.** The median is the value of a point on a scale above which half of the values are found and below which the other half of the values are found. As we ranked county expenditure from low to high the median is the eighth county which is seventh from lowest and seventh from highest.

**PER CAPITA DOLLARS.** Expenditure and revenue data were adjusted for population differences among governmental entities at a point in time and population changes over time for a given entity.

**REAL DOLLARS.** The influence of price increases over time was eliminated by dividing the actual dollar values by the Municipal Government GNP Deflator. This adjustment controls for the decreasing purchasing power of the dollar due to inflation.

**TAX AND NON-TAX REVNUUE.** The distinction between tax and non-tax revenues in this study is not the traditional one. Taxes are normally defined as compulsory payments to government without expectation of direct return to the taxpayer. We have included in the tax category certain licenses and fees that are usually classified as administrative revenues rather than taxes. We chose to include them as tax revenues to be consistent with the earlier Zubrow study.