2005

Union Impact On Police Expenditures In Florida

Laurence Putchinski
University of Central Florida

UNION IMPACT ON POLICE EXPENDITURES IN FLORIDA

by

LAURENCE J. PUTCHINSKI,
B.A. University of Wisconsin – Milwaukee, 1976
M.B.A. University of Central Florida, 1989

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Public Affairs Doctoral Program
in the College of Health and Public Affairs
at the University of Central Florida
Orlando, Florida

Spring Term
2005

Major Professor: Wendell C. Lawther

ABSTRACT

The continued steady growth of public sector unions compels public administrators to understand the influence labor organizations exert upon local governments. The following study demonstrates the extent of union influence upon police expenditures in Florida. Union influence not only increases total police expenditures and personal services expenditures, it also causes operating expenses to rise. Union influence is less pronounced, and possibly even non-existent in capital outlays expenditures because of possible lack of interest on the part of the union in this area and also because of the existence of economically predetermined policies regarding capital outlays such as vehicle purchases.

Public sector unions, by formalizing and enhancing the exit-voice phenomenon within government systems, influence the expenditures of local government. This influence manifests its presence specifically in local government expenditures. By examining the association between unionization and the level of expenditures in local government, this study attempts to illustrate the influence of unions upon local governments. Specifically, this study assesses the impact of police unionization has upon local government police department expenditures for municipalities in the state of Florida. A qualitative inquiry combines with a quantitative study to examine the extent of union influence on police expenditures in Florida.

I would like to dedicate this work to my wife, Linda, my sons Brendan, Christopher, and Mark, and to the memory of my parents, John and Frances Putchinski.

ACKNOWLEDGMENTS

My appreciation especially to Dr. Wendell Lawther whose long hours, dedicated commitment, and careful attention to this work has ensured its success as a worthwhile endeavor. I am grateful for his guidance and unfailing patience throughout the entire dissertation process.

I would like to also express appreciation to the other committee members, Dr. Naim Kapucu, Dr. Ronnie Korosec, and Dr. Walter Bogumil, for their assistance and encouragement. Dr. Kapucu for his painstaking review and help in the statistical analysis; Dr. Korosec for her much needed encouragement and guidance in practical applications; and Dr. Bogumil for his shared interest and insight in the field of labor relations.

My deepest thanks to family, the greatest blessing of life. Special thanks to my wife and best friend, Linda, for her constant support and companionship through the years. Thanks also to the rebels in my life, my sons Brendan, Christopher, and Mark who have taught me and continue to teach me the wonders of the world all over again. Thanks to my parents, John and Frances, and their love of learning that started me on the journey.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

The Growth of Public Sector Unions

According to the U.S. Department of Labor, Bureau of Labor Statistics (2004c), public sector employees represented by unions constituted 41.5% of total government employment in the year 2003. No other major private sector occupational category or subcategory exceeds the union representation density (percentage of workforce unionized) of the public sector. While union membership has declined in the private sector, unionization in the public sector has grown or remained stable in the last fifty years (Carrell & Heavrin, 2004). Public sector employees boast the greatest rate of union growth in the entire labor market of private and public sector employees. Since 1956, the ranks of public sector union members increased almost nine fold, even though total government employment just slightly more than doubled (Sloane & Witney, 2004).

Between the years 1998 and 2003, the private sector experienced a further decline in total union membership despite an increase in the number of total employed. During the same period, the public sector experienced an increase of union membership concomitant with the growth in total government employees. In 1998, 13.9% of the total number of private sector workers was unionized, while in 2003 the percentage of unionized private sector employees declined to 12.9%. Again, during the same period, the percentage of public sector unionized employees only slightly declined from 37.5% in 1998 to 37.2% in 2003. However, public sector unions actually added 419, 000 union members between 1998 and 2003, as a result of increased total governmental staffing (U.S. Department of Labor, Bureau of Labor Statistics, 2004c; U.S.

Department of Labor, Bureau of Labor Statistics, 1999)[1]. The Fraternal Order of Police alone experienced a 75% increase in membership between 1982 and the year 2000 (Hurd, 2003: 10).

Scholars attribute unionization to a number of causes, the most common being that employees are dissatisfied with one or more conditions in their workplaces (Carrell & Heavrin, 2004; Fossum, 1999; Katz & Kochan, 2000; Sloane & Witney, 2004). Since the public sector in the United States employed nearly 19.7 million individuals, or 16% of the total number of working Americans 16 years and over in 2003 (U.S. Department of Labor, Bureau of Labor Statistics, 2004c), the topic of union impact on public sector budgets, particularly wages and benefits, has attracted the attention of many studies, a number of which are the focus of the accompanying literature review. Among the occupational groups tracked by the Bureau of Labor statistics, protective services, which include government workers such as police officers and firefighters, are 36.1% unionized, second only to teachers for all occupational categories, private or public (U.S. Department of Labor, Bureau of Labor Statistics, 2004c). One study found that over 70 percent of large (100 or more sworn officers) police agencies in the United States engage in collective bargaining (Zhao & Lovrich, 1997: 513). Despite this information, very few studies have researched the actual extent of union influence on the budget decision process and none of the studies examined to what extent that influence affects local government decisions regarding operating expenses and capital outlays.

The Complications of Public Sector Budgets and Union Wages

Governments that are confronted with challenges to provide services with tightening cost-revenue constraints often must rely on workload adjustments and productivity measures to

[1] In 1998, the Bureau of Labor Statistics reported that there were 18.4 million public sector employees in all levels of government, of which 4.37 million were unionized. In 2003, these figures increased to 19.7 million public sector employees, of which 7.32 million were unionized.

meet budgets (Hatry, 1972). As Perry and Porter (1982) point out, government is more labor intensive than other sectors of the American economy because the government by definition is a provider of personal services. Since most state and local governments spend approximately 70% of their operating budgets on personnel pay and benefits, cutbacks in public sector human resources would likely be inevitable, and fewer public sector employees would be available to perform government services (Klingner, 1993). Cutback conditions tend to influence employee job satisfaction, perceptions of job security (Bender & Sloane, 1998; Jurkiewicz & Brown, 1998; Meng, 1990) and perceptions of resource adequacy (Kalleberg, 1977; Schwochau, 1987). Employees surviving personnel cutbacks often believe that as a result of downsizing, there is insufficient labor available to provide satisfactory government services. Thus, government budgets, and tightened fiscal controls ultimately affect job satisfaction among public sector employees, including unionized law enforcement officers.

Union members, whether satisfied or dissatisfied, will use labor organizations to exercise a "voice" mechanism that exerts influence in the local government policy making process, particularly in the area of budget decision making. The "voice" mechanism refers to the ability of employees, as represented by labor organizations to express their opinions and values to management. The presence of a union provides security to employees who otherwise would not exercise voice. Unions also render employee voice more effective by formalizing voice within the organization. Unionization results in employee influence that would not otherwise exist to the same degree. This study hypothesizes that such an influence extends to budgetary considerations of operating expenses and capital outlays as well as personal services items. Unions provide a formal venue through which employees can become more vocal and exert a greater influence in the workplace than their nonunion counterparts.

Framing the Issues

As public sector unions become more vocal and exert a greater influence in society, many public administrators find themselves becoming more preoccupied with understanding the complex and intricate dynamics of labor relations. Unions affect governmental budgets primarily through collective bargaining that negotiates wages and benefits. However, the impact of unionization may affect other portions of the budget as well, such as operating expenditures and capital outlays. Government fiduciary responsibilities require that strategic allocations of scarce public funds include consideration of wage packages, working conditions and employee benefits. Collective bargaining, then, directly influences personal services expenses. However, a point overlooked in the literature is that collective bargaining and other forms of labor-management dialogue also affect local government budgeting that are not restricted to personal services expenditures. A better understanding of employee union affiliation and the role unions play in a local government budgeting process would benefit the public administrator by guiding decisions of governmental compromises that mediate the demands of labor with the demands of public administration.

Purpose of Study

This study examines the impact law enforcement unions have upon local governments. The law enforcement function offers the most promising candidate for the type of analysis proposed by the study for a number of reasons. First, law enforcement represents the largest recipient of governmental fund resource allocations in most communities. While the proportionate share of total expenditures varies from community to community, law enforcement often is the most expensive service offered by local government. As an example, according to the

City of Orlando Comprehensive Annual Financial Report, police services expenditures required more than a third of total expenditures in general funds for the fiscal year 2002. Orlando is somewhat typical of local government law enforcement expenditures in the State of Florida. The actual average amount spent for law enforcement expenditures for a community in Florida is 31.2% of general fund expenditures, or 11% of total annual municipal expenditures (Florida Department of Financial Services, 2004). Total annual municipal expenditures include capital investments such as buildings, bridges, roads, sewer, etc. for an entire community. Any influence on this large a portion of a city's budget should be fully understood as a matter of fiscal responsibility, if for no other reason.

Another factor favoring law enforcement as a candidate for analysis is the possibility that unionization or employee affiliation with unions has greater variance than does other departments such as fire protection services. Police organizations represent the second most common type of bureaucratic agency in the nation, second only to those managing public education (Nicholson-Crotty & O'Toole, 2004: 2). Large police agencies also tend to have a distinct union presence, while police agencies in smaller cities tend not to have union representation (Valletta, 1989: 433). As will be demonstrated by the data used in this study, cities of similar size and even those in the same metropolitan statistical area will differ from each other according to whether or not their police workforce is unionized.

This study will attempt to determine how unionization affects the size of government as measured by expenditures for municipal law enforcement. The expenditures would be identified according to the agency in which the union functions. Varying levels of expenditures might have an association with whether or not union representation is present within the agency. The research questions thus would concentrate on two different dimensions of union influence on

budgetary decision making: 1) the propensity of police unionization to affect local government decision-making; and 2) an assessment of police union influence on local government expenditures.

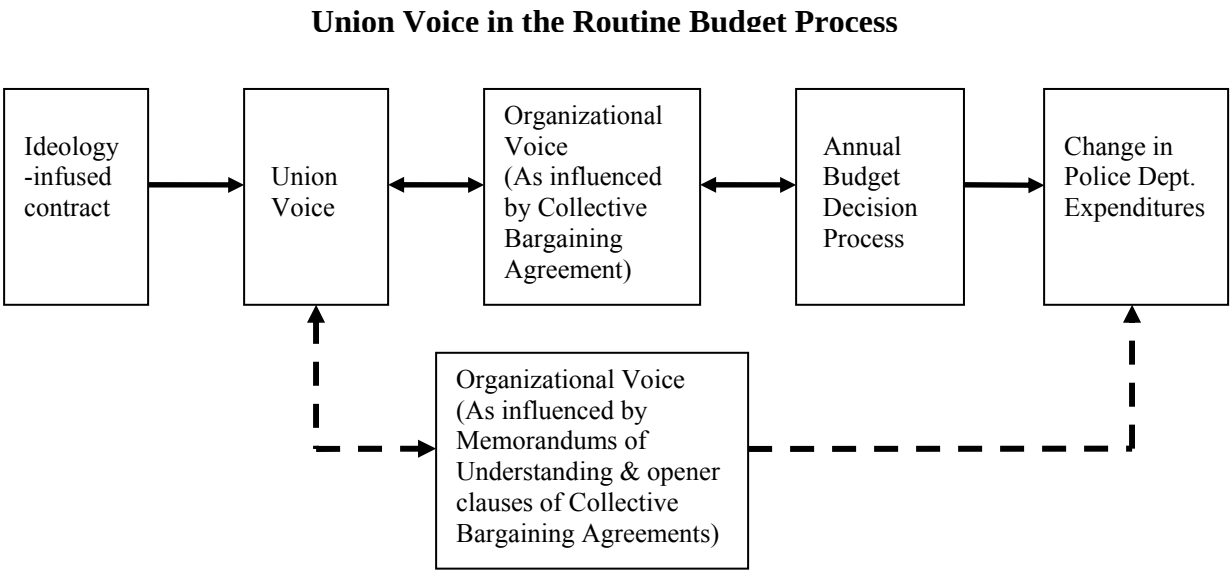

Figure 1. The Union Effect Model.

The Influence of Employee Beliefs and Values.

Figure 1 posits that public sector employees, including police officers, have beliefs of what is expected of the employing agency. This perception is internalized into their self-identity (Ideology-infused contract). The employees respond to perceived organizational violations of these beliefs by vocalizing their concerns through the union voice mechanism of the exit-voice continuum. The union voice mechanism then bonds to an organizational voice through union influence within the organization. The union-influenced organizational voice then participates in budget decisions through interaction with the employing agency, a municipality for instance. The

government and union interaction results in a change in government budget, usually an increase not only in self-interest items such as salary and benefits, but possibly through capital outlays and operating expenses. These increases in capital outlays and operating expenses reflect the beliefs of union members regarding how the agency should serve the community. Capital outlays and operating expenses usually do not benefit union members in as direct of a manner as do personal services expenditures. Union voice has two methods, or possible processes through which to influence police department expenditures. The first, more significant method is through the routine budget process which is altered by the collective bargaining agreement. The budget has to be reconciled to the terms of the collective bargaining agreement. Any changes in wages, benefits, and other related items negotiated through collective bargaining (formalization of union voice) will result in modification to the final operating budget. The budget, upon finalization and approval then becomes the instrument of resource allocation for the following fiscal year.

However, periodic adjustments may be required as the year progresses. This situation provides unions with the second process through which to express voice. As labor relations situations or issues arise during the course of the year(s) covered by the collective bargaining agreement, the union may successfully petition management for additional considerations related to working conditions or related to other items of interest to the union and its members. These agreements, usually referred to as memorandums of understanding, become part of the organization's policy (organizational voice). Such policies, if requiring additional resource allocations, then impact expenditures without proceeding through the routine budget processes. Usually, such mid-fiscal year alterations are not as sizable as year to year budget changes, but such alterations do impact municipal expenditures.

The Research Questions

Four different aspects of the effect of unionization on local government will be studied. Each aspect raises a separate research question. Each aspect requires a separate model to answer each resultant research question. This study's methodology chapter will operationalize the component variables. The following research questions will guide the modeling process and attempt to determine the effect of union density upon the size and expenditures of local governments.

Research Question One: Does unionization influence the level of total police expenditures? The purpose of this section of the study is to assess the involvement of police unions in the budget decision process for the overall level of police expenditures. Unions, out of concern for both the communities which they serve as well as their constituent members, might influence the amount of overall police expenditures within the local government. This aspect of the study will serve in some respects as a replication of previous studies that have concluded that the level of total police expenditures is affected by union influence. Only this study will draw samples from a single, right-to-work state. The study also differs from previous research by attempting to develop a more comprehensive understanding of the component expenditure categories and by determining exactly to what degree and in what categories unionization affects local government financial decisions. Such research would in effect measure the "voice" that unions provide public sector employees. It is expected that there will be a significant difference in the various expenditure categories between unionized and nonunionized police departments in Florida.

Research Question Two: Does unionization impact the level of personal services expenditures? Figures from the Bureau of Labor Statistics indicate that public sector employees represented by a public sector union have greater salaries than their counterparts not represented by public

sector unions. Previous studies corroborate this observation. This study will include a replication element that verifies these findings for Florida, and will also segregate the personal services expenditures from other police expenditures to better understand the union's impact on local government spending process.

Research Question Three: Does unionization affect the level of police operating expenses expenditures?

Answers to this question will indicate to what extent unions enhance exit-voice by influencing the day-to-day operating expenses. Union influence may have evolved into participation in the decision-making process by impacting the quality of police service indirectly through encouraging higher levels of spending in police operating expenses. This could be accomplished through collective bargaining, labor-management relations, or appeals to the legislative bodies of local governments. Expense items such as training/formal education, equipment, lighting in public areas, etc. may increase as a result of union concern for such items.

Research Question Four: Does unionization influence the level of capital outlay expenditures?

As with Research Question Three, answers to Research Question Four will reveal the level of sophistication unions impart to exit-voice. Consistent with Exit-Voice Theory, public sector unions act as a formal voice for their members, and tend to promote the goals and concerns of their members within the local government. As an example, a police union may be concerned that additional patrol vehicles may be needed and this concern may be brought to the negotiating table or presented to the legislative body with the intent of securing additional patrol vehicles. Another example may be implementation of capital technology such as global positioning systems, improved communication technology, and so on that the police union may deem necessary for the protection of the community or better performance of its membership. Again, as suggested by Exit-Voice, police unions and their members are expected to advocate a position

regarding capital outlays to obtain the improved technology because it affects the communities which they serve.

Contribution of Study

Considering the disproportionately large local government expenditures on personal services, answers to the foregoing budget issues can assist local governments in controlling expenses related to personal services costs. Very little financial control can be exerted for situations in which administrators are incognizant of the results of their concessions. On the other hand, the degree of union influence on budget categories may also be overstated in some cases, creating an inflexible, take-it-or-leave-it approach to negotiations that labor relations scholars dub as "Boulwarism." Such an approach may violate the "good faith bargaining" directive in Section 447.309 of the Florida Statutes. A better understanding of union influence on police operating expenses would decrease the likelihood that a public administrator would commit a similar error.

Moreover, operating expenses and capital outlays merit attention as well since public demand for fiscal responsibility has escalated in the recent past. By understanding the impact of union influence, public administrators can better inform their union counterparts regarding the extent to which employee demands affect local government finances. Unions could benefit from answers to these same issues by understanding the methodology and extent of influence that unions wield in local government affairs. While the study will also examine unionization effect on personal services expenditures, the study's unique contribution to budget decision making literature will be the determination of the effect of unionization on the day-to-day operating expenses and capital outlays in a local government agency. Few if any studies have isolated

these expenditures in their research. Unions may actually be determining the levels of public service in local government.

Review of the literature has demonstrated that unions impact salaries and benefits, but there is a paucity of information with regards to union influence on operating expenditures and capital outlays. This study contributes to the literature by examining the effects of unionization on operating expenses and capital outlays of local government police department expenditures.

The untested hypotheses set forth by the study is that unionization, as an extension and elaboration of voice, impacts local government in areas that are considered of personal benefit to the union membership and in areas that may not always be of direct benefit to union members. A concept rooted in psychological contract theory, identified as an *ideology-infused contract* (Thompson & Bunderson, 2003), provides the catalyst that causes the exit-voice phenomenon to evolve beyond issues of self-interest alone. The subsequent union influence upon local government policy no longer is restricted to working conditions, benefits and salaries. Issues focusing upon public service capture union concerns as well. Public administration practitioners will obtain better understanding of public sector unions' influence in local government. The study will also enable public sector unions to better evaluate and appreciate the ultimate effects of their strategies. Finally, theory in the areas of budget and in organization will receive added information to predict behavior and understand complex interactions. A greater understanding of local government financial dynamics can result through the increased understanding of the relationship between unionization and expenditures. Organization theory will benefit from the information resulting from the empirical study of the ideology-infused contracts and exit-voice effects on local government. The Exit-Voice theory designed by Hirschman will be examined with more current data in a modern labor market with proportionately more employers than when

the theory was first formulated. The presence of Exit-Voice in law enforcement employment will also be explored in a qualitative inquiry designed to augment information provided by statistical analysis in the quantitative section of the study.

At present, the literature contains a gap in the accumulated knowledge regarding the impact of unionization on local government spending. By segregating the component elements of police service expenditures, this study reveals which of these elements are contributing to increased expenditures, and to what extent these elements impact government budgets. Public sector managers would thus be able to assess the relative impact collective bargaining decisions have upon operating expenses as compared to personal services expenses or capital outlays, and adjust their collective bargaining positions accordingly. Given access to this information, public administrators will be better empowered to control line item costs associated with collective bargaining and unionization.

Definition of Terms

For this study the following terms are defined:

Bargaining Unit – The group of employees determined by the pertinent labor relations board to be an appropriate unit for collective bargaining purposes (Carrell & Heavrin, 2004: 622). In state and local government employment, public sector employees are usually categorized in such a unit by a governmental public employee relations board. In Florida, this authority is vested in the Florida Public Employees Relations Commission.

Blue-skying – Tactic of submitting exaggerated, excessive, and unrealistic demands into collective bargaining sessions, usually for strategic reasons (Sloane & Witney, 2004: 438).

Boulwarism – Collective bargaining tactic in which management gathers all available pertinent facts related to negotiation issues, communicates directly with the employees regarding these issues, and devises an inflexible (take-it-or-leave-it) offer to the union (Sloane & Witney, 2004: 206).

Capital Budget – Expenditures for the acquisition of major, long-lived assets. Should be an aggregation of expenditures and financings of all capital projects (Aronson & Schwartz, 1996). Local government annual resource allocations are usually specified in either the capital budget or the operating budget. Capital assets, or items costing more than 500-1,000 dollars can be funded through the operating budget.[2] Capital Improvement Plan items, such as public facilities which require separate financial planning, while there is no set value, usually use $100,000 as the threshold or defining amount in Florida municipalities.[3] While capital items less than the threshold amount are still considered capital assets, the operating budget provides funding for these items. Capital project funding for capital improvement projects is determined on a case by case basis, often according to funding source.

Capital Improvements Program – Local government plan which defines major projects over a five to ten year period, provides justification for the projects, presents fiscal projections of amortization of debt, and specifies the ways and means to satisfy debt required to finance the projects (Aronson & Schwartz, 1996: 134).

Capital Outlay – Expenses for items that have a useful life of more than one year, including equipment, furniture, and possibly vehicles (Riley & Colby, 1991). Capital assets in this

[2] The threshold for capital assets varies greatly from city to city. City One, according to the Director of Financial Services, uses $500 as the threshold amount, while a Budget Manager from City Seven reports that his city uses $1,000 as a threshold amount.
[3] Information provided by City One Director of Financial Services, and City Seven Budget Manager.

category can be budgeted as current expenditures in the general fund or special revenue funds (Aronson & Schwartz, 1996: 134).

Capital Projects Funds – A category of governmental funds which secure resources from long term debt and are used to acquire major, long-lived assets (Aronson & Schwartz, 1996: 127; Florida Department of Financial Services, 2000: Chapter 1, p. 2). Buildings, real estate and other major assets are financed through capital project funds.

Collective Bargaining – Process whereby unions and managements negotiate and administer labor agreements (Sloane & Witney, 2004: 438).

Collective Bargaining Agreement – Results of labor-management negotiations codified in written form (Katz & Kochan, 2000).

Debt Service Funds – Governmental fund designated to account for the accumulation of resources for, and the payment of long term debt principal and interest (Aronson & Schwartz, 1996: 127; Florida Department of Financial Services, 2000: Chapter 1, p. 2).

Enterprise Funds – A category of proprietary funds which, similar to private commercial operations, are maintained separately to account for revenues and expenditures in the subunit operations of a government entity that provides a specific, continuing service to the public, such as water and sewer, convention centers, etc. in which monies are kept separate from the general fund for more efficient and economical operations ((Aronson & Schwartz, 1996: 127; Florida Department of Financial Services, 2000: Chapter 1, p. 2)

Exit-Voice – The phenomenon and theory identified by Hirschman (1970) that explains the processes by which employees respond to conditions in the workplace. Hirschman proposed that members of an organization will respond to that organization's policies and practices through "voice," in which the members express their concerns, or "exit," in

which the members sever relations with the organization. Loyalty, an intervening force for exit and voice, represents the degree of attachment to the organization.

Expenditures – The amount spent by a local government in a specific financial category. In addition to total departmental expenditures, police departments record their expenses according to personal services expenses, operating (or annual0 expenses, and capital outlays.

Fund Accounting/Fund - A fiscal accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances, and changes therein, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations. The Governmental Accounting Standards Board (GASB) specifies that governmental accounting systems should be conducted on the basis of funds. (Governmental Accounting Standards Board, 1997: Section 1100.102)

General Fund – Governmental fund which supports all services of a local government (e.g., police, fire, parks and recreation, etc.) not assigned to other funds (Aronson & Schwartz, 1996: 127; Florida Department of Financial Services, 2000: Chapter 1, p. 2)

Ideology-Infused Contract – Concept which describes an employee's expectations of the employer's obligation to society (Thompson & Bunderson, 2003). The concept may affect the employee's identification with the employing agency, and subsequently self-identification.

Internal Service Funds – A category of proprietary funds in which the services of one government agency rendered to another government agency are billed to the client agency in order to better control costs of government operations. Services such as

printing, vehicle maintenance, custodial operations, central office supply departments, and so on are sometimes provided to local government departments through this method (Aronson & Schwartz, 1996: 127; Florida Department of Financial Services, 2000: Chapter 1, p. 2)

Memorandum of Understanding – 1) Supplement to a collective bargaining agreement, often used to resolve issues not covered at the time the collective bargaining agreement was negotiated (Gershenfeld & Gershenfeld, 1994: 60;); 2) Separate or "local" addendum to a regional or national collective bargaining agreement, which addresses local issues not contained in the collective bargaining agreement. The United States Postal Service and other entities utilizes collective bargaining agreements with national union officers, but rely on local memoranda of understanding with union branches at local post offices and facilities; 3) Employment terms discussed with employees not accorded full bargaining rights (Gershenfeld & Gershenfeld, 1994: 60). Full bargaining rights include formal recognition of a union as the bargaining agent of employees within a work unit; the right of that union to conduct negotiations with the employing agency; and the right of redress for the union and its members to full redress should negotiated terms be violated by the employing agency.

Multilateral Bargaining – Public sector unions advance their agenda not only through traditional negotiations, but also simultaneously through the political process acting as special interest groups (Valletta, 1989).

Object Class (Object of expenditure) – A descriptive category which specifies the type of service or article obtained through government funds (Freeman & Shoulders, 1999: 245).

Operating Budget – Financial document that allocates resources needed to provide services for the fiscal year (Aronson & Schwartz, 1996). Includes three types of expenditures: Personal Services; Operating Expenses; and Capital Outlays (Riley & Colby, 1991).

Operating Expenses – Usual, ordinary, and incidental expenditures for items and materials that will be consumed during the fiscal year in the course of providing services to the public (Gianakis & McCue, 1999: 21). Includes expenditures for goods and services which primarily benefit the current period, and are not defined as personal services or capital outlays.

Organization Unit – Governmental entity or department charged with performing one or more governmental activities such as law enforcement or fire protection services. GASB requires use of such classification for governmental accounting purposes (Governmental Accounting Standards Board, 1997: Section 1800.119).

Organizational Voice – Aggregation of information within the organization that the organization uses as feedback in determining policy (Banerjee & Somanathan, 2001). The decision maker acquires information from various groups and individuals within the organization that attempt to influence the outcome of the decision.

Personal Services Expenses – Expenditures allocated to salaries, wages and benefits of employees (Florida Department of Financial Services, 2000: Chapter 5, page 1).

Politicization – By-product of unionization in which the labor organization increases awareness within the workforce regarding unsatisfactory working conditions, which then leads to an expression of dissatisfaction among the union workforce (Borjas, 1979: 25).

Psychological Contract – Implicit, yet not formalized, understanding existing between employees and their employers which delineates the perceived expectations, rights, and responsibilities of both parties (Argyris, 1960).

Public Employees Relations Commission (PERC) – A regulatory, quasi-judicial agency of the State of Florida which: determines bargaining units; participates in dispute resolutions between public employers and public sector unions at the state and local levels; interprets the legality and appropriateness of local government labor relations policies; and in general governs labor relations procedures among state and local governments in the Sate of Florida (Salerno, 1981; Florida Public Employees Public Relations Commission, 2004).

Scope of Bargaining – Range of issues subject to negotiation (Aronson & Schwartz, 1996: 415).

Special Revenue Funds – Governmental fund which accounts for the proceeds of specific revenue sources that are restricted by law to specified purposes (Aronson & Schwartz, 1996: 127; Florida Department of Financial Services, 2000: Chapter 1, p. 2).

Trust and Agency Funds – A category of fiduciary funds which accounts for assets maintained by a government in a trustee capacity or by a government for other governments (Aronson & Schwartz, 1996: 131; Florida Department of Financial Services, 2000: Chapter 1, p. 3). Although pension funds technically belong in this category, the Department of Financial Services requires local governments to report pension funds separately in the PDF Expenditure Detail Reports (Florida Department of Financial Services, 2004).

Uniform Accounting System Chart of Accounts – A standard reporting system devised by the State of Florida Department of Banking and Finance that provides local governments

with consistent reporting procedures throughout the state (Florida Department of Financial Services, 2000).

Union – Organization of workforce employees with the authority to represent its constituency in negotiations, rights issues, and grievance procedures.

Union Density – Proportionate number or percentage of the workforce affiliated with an employee organization. The extent of union membership in a particular workforce (Katz & Kochan, 2000).

Unionization – Affiliation of workforce members with an employee labor organization. In the United States, such a labor organization has exclusive bargaining rights when representing the bargaining unit.

CHAPTER TWO: LITERATURE REVIEW

Introduction

Research into union impacts on police expenditures requires an examination of the processes involved in affecting such impacts. Public sector unions differ from those in the private sector in several respects, some of which enhance the public sector unions' ability to more readily fulfill their members' concerns. The nature of public sector unions, particularly police unions, should be investigated, as well as the influence of such unions has on their surrounding environment.

In order to understand what impact unions have on budgetary decisions, it must be determined which underlying mechanisms cause this impact, and exactly how the impact comes to fruition. A concept or concern may germinate from the rank and file police officers, and eventually be expressed in a local government document, particularly in the police expenditures of a local government budget. Several theories and their variants explain how this process is accomplished. Those theories, essentially the concepts of psychological contracts and a phenomenon labeled "Exit-Voice," will be examined in this chapter. The presence of the mechanisms explained by theories reveal themselves in the functioning of government, especially in police union labor relations, and ultimately in the budgetary processes of local governments. This chapter will discuss these functions, relations and processes in order to perceive the theories' manifestations in the real world. While later chapters will demonstrate the actual existence of union influence on local government budgets, this chapter will describe, in general terms, some of the obvious influences within society, and will also attempt to describe the dynamic forces that enable such influences to exist.

Once the seminal forces of psychological contracts and exit-voice are discussed, the chapter will examine the environment in which these forces operate, and the manner in which these forces express themselves. Public sector labor relations management and the budgetary processes provide the environment in which psychological contracts and exit-voice exert their influence. The various facets of public sector labor relations and budget processes will thus be examined. Among the various facets to be discussed are labor management-relations, collective bargaining, government budgets, and the unions that prompt changes to occur in these areas.

Labor unions in the public sector differ substantially from those in the private sector: Public sector employees have slightly different values than their counterparts in the private sector, and tend to be more satisfied with their jobs; Public sector employees tend to be relatively more unionized; Public perceptions of government employee unions are different than that of the private sector; and finally, the labor laws and environment governing local government employees are very different than the laws and the environment governing private sector employees. Private sector employees and their unions are governed by the National Labor Relations Act, while government employees are subject to the Federal labor Relations Act if they are employed by the federal government, or are subject to state labor laws if they are state or local government employees. The only exception to the preceding is that Title 39 of the United States Code specifies that postal employees and their labor organizations must follow the guidelines of the National Labor Relations Act. Although some of the motivating factors for unionized private sector employees are very similar to unionized employees in the public sector, the very structure of government moderates these factors in the public sector. Moreover, the manner and methods in which public sector unionized employees exert influence with their employers are also different from those of the private sector.

Ultimately, the influences of public sector unions become manifest in local government expenditures. While a great deal of effort has been exercised to determine the extent of union influence on personal services expenditures in the public sector, little or no similar effort has been devoted to studying the extent of union influence on operating expenses or capital outlays in local government. At least one form of public sector unions, the police unions, exert significant influence on operating expenses and capital outlays of local government expenditures in a manner similar to the influence these unions have on wages and benefits. Union influence in the public sector thus subtly yet perceptibly affects more than just one category of police expenditures. The following sections will examine the literature to determine the existing evidence of police union influence on local government expenditures, and the manner in which these influences are expressed.

Background: Unions and the Public Sector

Differences between Public and Private Sector Employees

Significant differences exist between public and private sector employees in terms of job satisfaction, and union orientation. Research using data from a 1991-94 study (Heywood, Siebert, & Wei, 2002), and from the National Longitudinal Surveys of Youth (DeSantis & Durst, 1996) indicate that public sector employees have a greater rate of job satisfaction than do private sector employees.[4] DeSantis & Durst (1996) found that 44.8 percent of the public sector employees reported high levels of job satisfaction, while only 35.5 percent of those in the private sector expressed the same. Roughly 16 percent of the private sector employees in that study stated that they experienced job dissatisfaction, as compared to only 10 percent of the surveyed

[4] Both studies were cross-sectional, and thus did not describe specific job categories.

employees in the public sector saying that they were dissatisfied with their job to some degree. Steel and Warner (1990) also concluded that public sector employees experience more job satisfaction. The researchers utilized a cross-sectional subsample of 6,111 individuals from the Youth Cohort of the National Longitudinal Surveys for the 1979 to 1987 survey waves. Steel and Warner experienced counterintuitive results in their studies by finding that "bureaucrat bashing" failed to dampen the comparatively higher levels of job satisfaction among public sector employees (Steel & Warner, 1990: 19).

Despite their comparable overall levels of job satisfaction, proportionately more public sector employees tend to prefer union representation more than do employees in other industries. In terms of union density, data from the U.S. Department of Labor, Bureau of Labor Statistics (2004c) show that in 2003, 12.9% of the total number of private sector workers was unionized, while 37.2% of public sector employees were unionized. Using data from the National Longitudinal Surveys, Hills (1985:180) determined that nonunion workers that favored unionization ranged between 15 percent for private sector workers in finance, to the maximum of 54 percent of government employees.

Recent studies (Fiorito, Stepina, & Bozeman, 1996; Freeman, 1996) provide additional evidence that public sector employees demonstrate a stronger preference for unionization than their private sector counterparts. One study in particular (Fiorito, Stepina, & Bozeman, 1996) determined that the cause for the greater preference for unionization on the part of public sector workers can be attributed to a union role perception on the part of public sector employees. The role of public sector unions, employees believe, is mainly that of a protector of traditional government benefits, most notably job security (Fiorito, Stepina, & Bozeman, 1996: 476). Fiorito et al also concluded that public sector employees assigned greater political

instrumentality to their unions than did private sector employees (1996: 474). Political instrumentality of unions, which refers to perceptions of union influence in politics, might thus provide an added attraction of union membership for public sector employees. Fiorito, Stepina, & Bozeman (2001: 474), using data from the Union Image Survey, also concluded that public sector employees were much less likely to perceive a threat of retaliation from management as a result of unionization than were private sector employees.

A study by Hills (1985) indicates that public sector unions tend to retain their favorable image among members. Hills' data showed that in public administration, 92 percent of unionized respondents would vote for the union again in a certification election. Such a high affirmative percentage among public sector employees ensures the continued existence of these unions and a reduced likelihood that these unions would be replaced by other unions or cease their role as collective bargaining agents. This demonstrates that public sector unions are neither ephemeral nor transitory. Hills concluded that nonunion workers in public administration were almost twice as likely to support union representation as were workers in other private sector service industries. As indicated in the beginning of this discussion, data from the U.S. Department of Labor, Bureau of Labor Statistics (2004c) confirms that unionization of public sector employees continues to be an ongoing, pervasive phenomenon.

Public sector unions also differ from private sector unions from an organizational perspective. While the reputation of some private sector unions became smudged with corruption and strikes, public sector unions remained relatively free of these negative images which then results in a more positive attitude toward unions among modern public sector employees (Fiorito, Stepina, & Bozeman, 1996: 465). There have been work stoppages and similar acts by public sector employees in the United States since the 1830s (Kearney, 2001: 257). The year 1979

experienced the most strikes by public sector employees with a total of 538 strikes or similar job actions (Nicholas, 1998: 303). Included in these episodes of 1979 was the New Orleans police strike which occurred shortly before Mardi Gras, effectively canceling festivities and costing business millions of dollars (Greene, 2005: 216). Since 1979, however, public sector employee strikes became far less common (Nicholas, 1998: 303). One notable exception was the strike by the Professional Air Traffic Controllers Organization (PATCO) strike in 1981 which did not receive public support (Kearney, 2001: 255). The Reagan administration gave a return-to-work ultimatum to the striking air traffic controllers, and then fired those strikers that ignored the order. The consequences of the PATCO strike for organized labor appeared to have a dampening effect on future work stoppages by public sector employees (Schuman & Olufs, 1988: 353).

Traditionally there has been less opposition to employee unionization by management in the public sector than by management in the private sector (Craft, 2003: 548). Troy (2001: 253) noted that while private employers oppose the unionization of their employees for competitive reasons, many public employers promote unionism for political reasons. In the private sector, unionization reduces managerial flexibility and increases the cost of labor, and thus makes it more difficult for private sector employers to compete. In the public sector, conditions differ from those in the private sector. Moreover, the public sector manager may find an ally in the public sector union to further departmental goals. Troy (2001: 253) cited an example of unionization of 70 to 80 thousand home care workers in February, 1999 in which Los Angeles County played an active role. He further noted that in the private sector similar action would be deemed to be an unfair labor practice and the union would be labeled a company union and ultimately decertified.

Another factor that could contribute to the relative successes of public sector unionization is the recent positive reaction of public opinion toward unions. While negative political rhetoric, union corruption, and strikes soured public opinion regarding unionization in the 1950s and earlier (Ichniowski, Freeman, & Lauer 1989), public sentiment in recent years has turned dramatically. Craft (2003: 548) notes that "This more positive environment with growing public approval suggests politically enabling possibilities for unions in organizing public sector workers and negotiations with management." Craft notes that a 2001 Associated Press poll shows that general public approval of unions is about 3 to 1 whereas twenty years ago the margin was 2 to 1.

Union Political Force

American unions have demonstrated their influence over national sociological issues as well as labor issues. Freeman and Medoff (1984) credit unions with successfully pushing for such legislation as the Public Accommodation Act of 1964, the Civil Rights Act of 1964, the Voting Rights Act of 1965, anti-poverty legislation, and the Occupational Safety and Health Act of 1971. A Freeman and Medoff (1984) study demonstrated that senators (both Republicans and Democrats) from highly unionized states are more likely to vote for union sponsored issues than those from less heavily unionized states. This study acknowledges the possibility that unions use their political and negotiating influence to affect local government budgetary outcomes on more than just wages and benefits of their members. More extensive discussion of the political role of unions will be discussed in the labor relations section of this chapter entitled "*Union Politicizing and Politics*."

Union Influences on Wages

Federal, state and local governments pay public sector union employees at a much higher rate (22.2% more) than public sector non-union represented employees (U.S. Department of Labor, Bureau of Labor Statistics, 2004d). The median weekly earnings for a government worker represented by a union in 2003 were $795, for a government worker not represented by unions, $656 for the same government service. The disparity is more pronounced in local government payroll than found in either state or federal government, even though local governments have more employees than federal and state governments combined. The median weekly earnings for a local government worker represented by a union in 2003 were $803, while a local government worker not represented by a union received $606. The earnings gap between union-represented and nonunion-represented local government employees expanded the margin of difference to 32.5% in 2003 (U.S. Bureau of Labor Statistics, 2004d). According to the U.S. Bureau of Labor Statistics (2004d), the median weekly earnings for non-union employees in the protective services (police and firefighters) category is only 60% that of median weekly earnings for union represented employees in the same category. A review of empirical examples in the literature will discuss this matter in greater depth. The reason that public sector union members earn higher salaries than their nonunion counterparts can be attributed to a dynamic concept called *voice*.

Exit Voice

Overview of a Phenomenon

Union influence on local governments can best be understood by utilizing concepts identified by such theorists as Chris Argyris and Albert Hirschman. Argyris and Hirschman

defined two separate dimensions of organizational behavior that explain the manner in which constituent members of an organization impact policies and decisions within the organization. Argyris (1960), theorizing a "psychological contract" at the individual level, describes the presence of a seminal dynamism which could eventually evolve into a policy embraced by the entire organization. Hirschman (1970), with the ternary interactive mechanisms of exit, loyalty, and voice, explains the process which transforms an inceptive value at the individual level into an action or policy which affect both the individual and the organization of which the individual is a part.

The concepts inculcated by Argyris and Hirschman form the primary considerations in this study of the impact of unions upon local government expenditures. Argyris provides understanding as to how employees formulate opinions regarding the employing organization, while Hirschman categorizes employee reactions to these opinions and the manner in which the opinions may be expressed. Numerous other scholars have built upon the basic concepts advanced by Argyris and Hirschman, which thus provide a more sophisticated understanding of labor relations in the public sector. Unionization supplies a formalized process through which voice can be exerted by employees without fear of employment-related repercussions. While a propensity may exist for the individual employee or groups of employees to exert voice or influence within their employing local government, the effectiveness of such a voice may be dramatically limited in non-unionized work environments. The following sections will discuss the conceptual components of Psychological Contracts, the processes of Exit-Voice, and the ramifications and complexities dealing with these concepts.

The Psychological Contract and the Ideology-Infused Contract

The initial concepts of Psychological Contract Theory emerged from Chris Argyris' book, *Understanding Organizational Behavior* (Argyris, 1960). Argyris posited that an implicit understanding existed between employees and their employers, more specifically between factory workers and their foremen. This understanding delineated the exchange relationship between employees and their employing organization. The employer believes that the employee is obliged to provide certain services (such as productivity), and the employee believes that the employer is obliged to demonstrate certain characteristics (such as fairness).

Soon other theorists (Levinson, Price, Munden, Mandl, & Solley, 1963; and Schein, 1965) developed the concept of the psychological contract to include the perceptions of both employer and employee that have not been formalized in any way and may not even be able to be articulated by the parties themselves but still govern the relationships between the two parties. Both the employer and the employee believe that employment entails an obligation on the part of both members. The obligation extends beyond mere payment for services and includes such expectations that the employee will exercise due care with the employer's property and that the employer will offer a safe work environment.

Rousseau (1989: 124) expanded the concept further, arguing that unlike an implied contract, the psychological contract is perceptually subjective and does not require social consensus. The implied contract, according to Rousseau, often results from the relationship between two or more parties and its existence is often inferred by the public or by the courts. Established precedence by one or both parties often creates implied contracts as demonstrated in decisions rendered by courts and arbitrators. As an example, a labor contract or local memorandum might specify that employees are entitled to breaks without specifying the length

of the break. If the employees take 15 minutes instead of 10 minutes for the breaks, and the employer does not object, precedence is established, and an implied contract exists that breaks are 15 minutes in length. As a result, both parties are eventually obliged to honor the precedence-established length of the break, even though the exact length of time for the break is not formally specified by either the local contract or a local memorandum of understanding.

In contrast, terms of the psychological contract are more unilaterally perceived (Rousseau, 1989: 124; Rousseau, 1995: 9). An example of a psychological contract is the case of a newly hired employee who picked up on cues that employees committed to the company would have a fast track opportunity for promotion (Rousseau, 1995: 34-35). An ambitious employee responds by working hard for the company, expecting a reasonably quick promotion. While the employee has expectations of a quick promotion as a result of hard work, there are no guarantees or formal policies ensuring promotion in this instance. The employee has the perception that his or her contributions to the organization encumber the organization with an obligatory reciprocity.

Details of a psychological contract emerge from the perceived promises emanating from various external cues such as documents, discussions, and organizational practices (Thomas, Au, & Ravlin, 2003: 452). Critical to understanding psychological contract formation is the realization that the external cues are subjectively interpreted by the individual employee based on individual dispositions and constructions of the employee (Rousseau, 1995: 34). Because subjective interpretations vary from individual to individual, parties of the same psychological contract are likely to hold somewhat different or possibly even very different beliefs regarding each other's obligations in the relationship (Robinson & Rousseau, 1994: 246).

Psychological contracts remain distinct from simple expectations. Whereas expectations refer simply to what an employee may expect from his employer, a psychological contract

requires a belief that an employer is obliged to provide something based upon the perception that the employer had promised to provide such a benefit (Robinson, 1996: 575). In the same vein of reasoning, promises by either party alone do not create a contract. In order to define a contract, a promise has to be exchanged for some consideration on the behalf of the other party. As explained by Robinson and Rousseau (1994: 245): "Considerations such as hard work, accepting training or transfers can be offered in exchange for promises, either implied or stated, of pay, promotion, growth or advancement. Together, the promise and the consideration exchanged for it form the contract."

While a general agreement of the contractual terms may exist, a common understanding of all the terms does not exist. For instance, an employer might assure a new employee that hard work leads to promotions within the organization. The term "hard work" may elicit entirely different connotations from both parties. "Hard work" that is ineffective or unproductive probably would be unacceptable to the employer. Yet, unrewarded additional effort would result in resentment on the part of the employee.

Researchers (Rousseau, 1995; Morrison & Robinson, 1997) have concluded that employees perceive psychological contracts to be violated by the employing organization as a result of two basic reasons: 1) reneging, in which an organization knowingly breaks a promise to the employee whether on purpose or through extenuating circumstances; and 2) Incongruence, in which the employee and the organization have different understandings of the obligations of either party. Theorists propose that a violation of the psychological contract is related to increased exit, increased use of voice, decreased loyalty, and increased neglect of job duties (Turnley, & Feldman, 1999; Turnley & Feldman, 1998). Some writers (Folger & Cropanzano, 1998: 213) refer to negative employee reactions as "dark side responses." Recently, an

increasing amount of attention has been directed toward this topic by organizational behavior scholars. Although somewhat related to the topic of this research, discussion of "dark side responses" lies beyond the scope of immediate focus for the study[5].

The concepts spawned by psychological contract theory become of particular interest to this study through mounting evidence that employees may also have expectations of their employing organizations that go beyond the concerns of immediate self-interest and personal treatment. Thompson and Bunderson (2003) suggest that employees have beliefs that the employing organization has an obligation to fulfill a valued cause or principle. These beliefs, according to Thompson and Bunderson (2003: 574), are ideologically infused into the psychological contract. The employee, by virtue of employment in that organization, feels obligated to perform in a manner that contributes to overall efforts in fulfilling organizational commitments and obligations to the valued cause or principle. "The salient beneficiary of this relationship is some constituency-however distal or poorly defined-that is assumed to benefit from the organization's actions (e.g., 'the poor,' 'society,' 'endangered species,' 'the environment,' 'future generations,' or 'people like me')" (Thompson & Bunderson, 2003: 576). For the public sector employee and his/her union, that constituency is the community which they serve as public servants.

The "protect and serve" motto associated with many police services is an example of the employee-perceived promissory obligation of a police department. A psychological contract

[5] For detailed information on this topic, the reader is directed to: studies by Skarlicki and Folger (1997) regarding organizational retaliatory behavior; research by Duffy, Ganster, and Pagon (2002) concerning social undermining in the workplace; Robinson and O'Leary-Kelly (1998) and Aquino and Douglas (2003) involving anti-social behavior in the workplace; Bennett and Robinson (2000) on workplace deviance; and the Bowen and Blackmon (2003) work on "organizational spirals of silence." As opposed to these "dark side" responses, voice is the constructive effort which attempts to influence the employer in order to repair the employee-employer relationship (Turnley & Feldman, 1999: 900).

Table 1 Components of the integrated theory describing the impact of unionization upon local government spending.

Author/Year	Concept	Description/Synopsis
Argyris (1960)	Psychological Contract	Implicit understanding between employee and employer regarding what is expected. Exchange relationship between employee and employer delineated.
Rousseau (1989)		Psychological contract is perceptually subjective and not necessarily a consensus.
Thompson & Bunderson (2003)	Ideology-infused contract	Employees hold beliefs regarding the mission and objectives of an organization. Failure of organization to fulfill employee's perception of mission creates a threat to employee self-identity.
Hirschman (1970)	Exit-Voice	Organization members respond to organizational situations through *voice*, in which the members express concerns, or through more negative reactions such as *exit*, in which they sever relations with the organization.
Freeman & Medoff (1979)		Unions provide workers as a group with a collective voice, a means of communicating with management
Banerjee & Somanathan (2001)	Organizational voice	Voice considered as a means of information aggregation within the organization. Provides information to the organization.
Bowen & Blackmon (2003)		Employees are reluctant to use voice unless they receive support from co-workers.
Freeman (1976)		Unions affect changes in collective bargaining agreements by voicing members' preferences.

violation, as it is perceived by the employee, can include the belief that the organization has abandoned an espoused principle or cause (Thompson & Bunderson, 2003: 571). Should an employee perceive that the employing organization is not fulfilling its designated role, the employee's ideology and the employee's very identity becomes threatened (Thompson & Bunderson, 2003: 577). An example of this situation would be cutting back the number of patrols because of budget constraints. A perception of psychological contract violation might arise within the law enforcement employee because the reduced number of patrols may be considered by the employee to be excessively attenuated to provide adequate protection to the affected community. Thus, if a law enforcement agency is perceived by the agency employees to be remiss in its role of protector and servant, the employees become dissatisfied with conditions and believe that a psychological contract has been violated. Concomitantly, when employees perceive a disparity between desired and actual conditions, they will attempt to communicate with management to change the existing conditions (Freeman and Medoff, 1984).

Evidence exists in at least one study of police unions which indicates that law enforcement employees believe that they have a right to voice their opinions and possibly even influence law enforcement policy. Drawing on membership information provided by the National Association of Police Organizations and the Fraternal Order of Police, Kadleck (2003) surveyed over a thousand police organizations to determine the characteristics exhibited by these organizations. Kadleck's study received a response rate of 58 percent for the survey. As a result, 648 separate police organizations participated in the study. The organizations that participated in the study were both collective bargaining agents (unions) and fraternal organizations. A substantial majority (88%) of leaders from these organizations believed that the police employee organizations were entitled to an important role in policy development, not only when the

policies dealt with "employee issues," but also when the policies dealt with other issues as well (Kadleck, 2003: 349).

The Exit-Voice Phenomenon

Behavior resulting from the ideology-infused psychological contract based perceptions requires a vehicle for expression and manifestation within the work environment and the local government system. Hirschman (1970) proposed a trinomial theory pertaining to the internal dynamisms of organizations in a free society. Numerous researchers (Freeman, 1978; Borjas, 1979; Freeman & Medoff, 1984; Schwochau, 1987; Meng, 1990; Hersch & Stone, 1990; Bender & Sloane, 1998) have interpreted their findings (or refute others' findings) by referencing Hirschman's theory.

Hirschman posited that members of an organization, be they consumers or employees, will respond to organizational dictums, situations, and conditions through the mechanisms of either: *voice*, in which they express dissatisfaction or corrective dialogue; or *exit*, in which they sever relations with the organization. *Loyalty* is an intervening factor that tempers the effects of both *voice* and *exit.* The three elements continually interact with the member and each other element to affect behavior. As an example, loyalty is predicated on the possibility of exit, and the effectiveness of the *voice* mechanism is strengthened by the possibility of exit. Management, Hirschman notes, will seek to identify the underlying causes that lead to exit and thus attempt to remedy or mitigate these causes. Voice serves to alert management to the nature of these causes. Although exit is the abandonment of the employee-employer relationship, exit plays a supportive role as well as an independent role in the process. According to Hirschman (1970: 83), "the effectiveness of the voice mechanism is strengthened by the possibility of exit." The threat of

exit must be credible, however, in order for voice to be at its most effective (Hirschman, 1970: 85). Conditions such as severely limited job markets would reduce this credibility. On the other hand, a high demand for labor would enhance threat-of-exit credibility. Enlightened members of management, in the effort to retain their workforce, would take the steps necessary and reasonable to minimize exit behavior.

Loyalty serves a crucial role in the process of exit-voice. Loyalty is defined as a "special attachment to an organization" related to the extent to which an organizational member is more likely to exit rather than take the risk that conditions will improve in the organization (Hirschman, 1970: 77). Further, according to Hirschman (1970: 82), because of loyalty, "members may be locked into their organizations a little longer and thus use the voice option with greater determination and resourcefulness than would otherwise be the case." Something about employment within a certain organization appeals to the employee and creates an attachment to that organization. This "attachment" changes the threshold for the propensity of exit and establishes an inverse relationship between loyalty and exit. As loyalty increases, the likelihood of exit decreases. Hirschman explained that without loyalty, the member perceives little chance of influencing the employing organization. Exit would become a more attractive alternative in such a situation.

The intricate relationship between voice, exit, and loyalty merits additional comment because of the external factors that add complexity to the concept. External factors include such conditions as the relative degree of monopolistic and competitive elements present in a situation. When an organization competes with close substitutes that offer similar benefits, employee exit becomes less costly for the employee, and loyalty becomes more functional, that is, more important as a mediator in employee exit (Hirschman, 1970: 80-81). Hirschman believed that

when the exit option becomes unavailable, voice becomes the only way in which members of the organization can react (1970: 33). One example Hirschman used to illustrate this point was that of the exclusive bargaining rights of a specific labor organization. The option for exit in the monopolistic environs of a labor organization usually is quite costly to members. Exiting the organization often results in less influence and often less protection for the former member. Since the option to exit the bargaining unit but not the employing organization in these circumstances is someone diminished, voice is increased (1970: 79-80). Union members would thus be more likely to revitalize the union or engage in decertification efforts, which are both voice expressions.

Even more essential to the theory, however, is the understanding that voice is both a complement and a substitute for exit. On one hand, if a member remains in the organization, the possibility for both voice and exit continues to exist. However, once a member has exited the organization, the option of voice is lost (Hirschman, 1970: 37). Anyone remaining with the organization is thus a candidate for voice, that is, the remaining members of the organization possess at least the *possibility* of expressing themselves. The exiting organization member no longer retains such a possibility once that member severs relations with the organization.

Voice must have effectiveness, or at least have the potential of effectiveness, to reduce the threat of exit. According to Hirschman, if organization members believe that voice will be effective, they will postpone exit. Thus, the decision not to exit would result despite a clearly more attractive alternative if organization members believe that the complaints of others combined with their own loyalty are perceived to be successful (1970: 38). Hirschman notes that the individual may not personally be encumbered with voice, but the potential that *someone* will speak out or something will happen enhances loyalty within the member. Loyalty then increases

the opportunity cost of exit and the individual is thus more inclined to remain. Employees who believe that their expressed concerns will be considered by management would tend to have a greater sense of loyalty, and less likely to exit, than employees who believe that their expressed concerns would have no effect on conditions. Employees seeking greater rate of pay, for instance, would be more likely to remain in the organization if the possibility exists that management would respond in a positive manner to their concerns for higher pay. On the other hand, employees seeking greater rate of pay would be less likely to remain in the organization if there is little hope of management even considering their request for higher pay, especially if other similar organizations are available in which the possibility for higher pay is greater.

Hirschman proposed the exit-voice concept from a general organizational perspective, so that the theory could be applied to a variety of societal structures. Other scholars (most notably Freeman, 1976; Freeman & Medoff, 1979; and Freeman & Medoff, 1984) expanded Hirschman's exit-voice concept to explain behavior of trade unions and union members in the context of labor relations with their employing organizations. Freeman and Medoff (1984: 94) credited unions with offering *voice* to their members, which in turn reduces turnover by creating desirable working conditions, and providing discontented union workers a voice alternative to quitting. Freeman & Medoff (1979:71) emphasized that "In modern industrial economies, and particularly in large enterprises, a trade union is the vehicle for collective voice – that is, for providing workers as a group with a means of communicating with management." Exit-voice theory, as applied to union environments, thus suggests that unionized employees are more likely to express voice to change undesirable conditions, whereas nonunion employees will be more inclined to exit. Miller & Mullvey (1991: 45) attribute this situation to the reluctance of a worker in a non-union environment in expressing voice for fear of being labeled a troublemaker. In

contrast, union environments encourage voice as a more or less acceptable activity which is sanctioned by established procedures such as grievance systems and collective bargaining. Unionism enables a view held by employees within an organization to be expressed as a collective voice. Employees often expect the ability to project voice as part of their psychological contract with their employing organization (Rousseau, 1995).

The benefits of exit-voice, according to Freeman and Medoff, spills over into nonunion environs as well. The dissatisfied nonunion employee can respond to an undesirable situation by quitting the job or forming a union at the workplace. Freeman and Medoff based their exit-voice trade-off conclusions on substantial empirical research (Hamner & Smith, 1978; Schriesheim, 1978; Herman, 1973; Kochan, 1979; DeCotiis & LeLouarn, 1981; Hamner & Berman, 1981; and Brotslaw, 1967). One especially notable research (Hamner & Smith, 1978: 415) studied 87,740 salaried employees from 250 separate units of a single large employer. Hamner and Smith concluded that those units having greater levels of dissatisfaction experienced more intense union organization efforts.

Voice, however, according to at least one study (Iverson & Currivan, 2003), does not always depend strictly on whether or not the employee is satisfied or not. Studying 674 unionized public school teachers from 405 schools, Iverson and Currivan (2003: 105) found that "members use their participation in the union to voice irrespective of their level of job satisfaction." The presence of unions thus increases not only the possibility for voice, but the likelihood that voice will be exercised. This likelihood becomes greater as conditions become of greater concern for the employee. When employees perceive a difference between desired and actual conditions, they will attempt to use direct communication with management to change the

existing conditions (Freeman and Medoff, 1984). Union activists, however, are more likely to voice their opinions than are ordinary union members (Cappellari, Lucifora, & Piccirilli, 2004).

The now classic studies of Freeman and Medoff (1984) noted that union members express voice more frequently in such areas as working conditions and safety than non-union members. The voice effect provided by unions alters exit behavior among union workers. Freeman and Medoff (1984: 94) compared tenure and quit rates for union and non-union employees. The researchers isolated the effect of union voice by controlling for age, sex, and other personal attributes. In addition, Freeman and Medoff restricted their comparisons to union and non-union workers earning the same wages. They concluded that "With wages and other factors the same, unionized workers are likely to quit much less frequently than nonunion workers" (Freeman & Medoff, 1984: 95). Reduction in quits as a result of unionization varied between 31 to 65 percent, on the average. Moreover, large reductions in quits and increases in tenure caused by unionization were found to occur in National Longitudinal surveys (Freeman & Medoff, 1984), and in research conducted by Miller and Mulvey (1991). Leigh (1986: 65) discovered that the union voice mechanism encourages unionized workers to express dissatisfaction while increasing their demand for union representation. Leigh's empirical analysis essentially confirmed Freeman and Medoff's (1984) exit-voice observations that unions provide a voice through the collective bargaining process. Rees (1991: 31) found that teachers with the strongest types of grievance procedures in the contracts were less likely to quit than teachers working under weaker grievance procedures. Rees concluded that the results of this study provided evidence that unions reduce quits through a "voice" effect.

A number of studies (Freeman, 1978; Freeman & Medoff, 1984; Borjas, 1979; Kochan & Helfman, 1981; Schwochau, 1987) discovered that while union members express more

dissatisfaction with their jobs than do nonunion employees, union employees are less likely to quit their jobs than are nonunion employees. However, some studies (Bender & Sloane, 1998: 222) argue against evidence of the paradox by stating that the relative dissatisfaction among unionized workers emerges from environs of poor industrial relations which tend to increase the propensity of unionization. Heywood, Siebert and Wei (2002) wondered whether the voice function of unions attracts workers that are naturally given to complaining. The researchers believe that unionization creates a "sorting" effect. Heywood, Siebert and Wei (2002: 605) define sorting as "the tendency of those toward the lower end of the pay-satisfaction distribution to be sorted into union jobs." Similarly, Bender and Sloane (1998) argue that the larger proportion of the job satisfaction differential seems to arise from the differences in characteristics, which are usually negative, indicating that unions form in places where satisfaction is low anyway. Heywood, Siebert and Wei (2002) used longitudinal data from the 1991-94 British Household Panel Study (BHPS) to determine that the sorting mechanism did surface in the data pertaining to public sector employees in general, but not to overall reduced satisfaction in union jobs.

Hills (1985: 184) looked at a variation of the "sorting" mechanism, but labeled the mechanism "self-selection." Hills speculated that, in highly unionized industries, self-selection would be more pronounced because he thought strongly anti-union workers in newly unionized firms would move into nonunion sectors within the industry. Hills rejected the self-selection variable from the equation when it failed to achieve statistical significance. Comparing different organizations with varying proportions of union affiliation could resolve the question of sorting.

Borjas (1979) believed that the dissatisfaction expressed by the employees surveyed was not genuine because the expression was not consistent with behavior (i.e., "quits"). He suspected

that the expressed dissatisfaction was a "device" (Borjas, 1979:25) that the union could use to leverage more demands from the employer. Contrary to the summary statements of Borjas and Freeman and Medoff (1984) regarding "genuine responses," Hersch and Stone (1990: 750) concluded that the expressed dissatisfaction was indeed genuine for union and nonunion employees alike. They amended the exit voice position of Borjas to include the caveat that the expressed dissatisfaction had real consequences for the propensity to quit.

Bender and Sloane (1998: 222), however, stated that their research did not tend to support Borjas' and Freeman and Medoff's argument. Contrary to the beliefs of Borjas, Freeman and Medoff, Bender and Sloane believed that the union members' negative expression of job satisfaction are genuine. Bender and Sloane said other considerations, such as whether or not the employer was a monopsonist, come into play. If indeed that were the case, the exit-voice tradeoff ceases to exist because the employee does not have the exit option readily available. Bender and Sloane, instead, believed that their findings, of the industrial relations variables in the regressions, cause the negative union effect to become insignificant. They attribute Borjas' (and others) findings to statistical methodologies that create bias by omitting pertinent variables.

Gordon and Denisi (1995: 234) dismissed the voice "device" altogether by saying that unions do not foment dissatisfaction with working conditions among their constituents because it is in the union's interest to improve working conditions, not exacerbate existing problems. The research by Gordon and Denisi (1995: 225) quotes empirical studies (Eaton, Gordon & Keefe, 1992; Gordon, Beauvais, & Ladd, 1984) which indicate that both private and public sector employees satisfied with their job also seem to be more satisfied with their unions. Gordon, Beauvais, and Ladd (1984: 359) in particular found support in their study for the concept of dual allegiance to both management and unions. A mutually beneficial labor relations climate would

be sought not only by management but also by union, and the employee would experience a greater level of job satisfaction. The unions, according to Gordon and Denisi (1995: 234), benefit from their ability to negotiate favorable collective bargaining agreements and successful handling of grievances, and thus actually enhance job satisfaction within the workforce. Moreover, regression analysis in a number of samples in the Fryxell and Gordon (1989: 862) studies conclude that "…in terms of worker satisfaction, a union has more at stake than a management when grievances are resolved."

Freeman and Medoff (1984:139), however insist that "The paradox is not that unionists are less well satisfied than others, but that their expressed dissatisfaction is inconsistent with their exit behavior." The apparent paradox created by voice may actually result from a combination of the dual inherent factors within voice itself. Voice, according to Krefting and Powers (1998: 274), can result in inherent tensions as well as provide an emacipatory function for employees. Fear of reprisals and sanctions for exercising voice must be weighed against the possibilities of achieving desired outcomes. Research by Harlos (2001: 335) suggests that the duality of employee voice may be more pronounced in informal systems such as open door polices. The study also concluded that "the protocols of informal systems are poorly specified, allowing greater procedural variations from individual differences in voice managers' complaint handling styles" (Harlos, 2001: 329). Formal systems, as found in union environments, typically are more standardized and thus foster more consistent implementation.

Exit-voice hypothesis has been especially utilized by Borjas (1979) and Freeman and Medoff (1984) to describe the phenomenon which "politicizes" (according to Borjas, 1979: 38) the workforce, encourages employees to voice their complaints more effectively, and thus acquire a less exacting alternative to quitting their jobs. Borjas (1979: 25) used the term

politicization to describe the communicative process through which the union increased awareness of less-than-satisfactory working conditions among union workers, which then resulted in expressed dissatisfaction among the workforce. Unions also use a similar communicative process in their dealings with legislative bodies in order to secure sought after goals for their members. As demonstrated by various studies referenced in this paper, the "voice" political and negotiating power created by labor organizations thus enables public sector employees to exercise greater control over not only their destiny, but also the destiny of the local government which they serve. Public sector employee organizations, as noted by Freeman (1986), enjoy political power both as an integral player within the local government itself, as well as being constituents of the elected officials of that local government. As mentioned previously, more extensive discussion of the political role of unions will be presented in the labor relations section of this chapter entitled "*Union Politicizing and Politics*."

Exit in Police Departments

Turnover rates in police departments suggest that the dynamics of exit-voice are very much present in the field of law enforcement. Large agencies tend to retain sworn officers longer than small agencies (Koper, Maguire, Moore, & Huffer, 2001). Large agencies also tend to have a distinct union presence, while agencies in smaller cities tend not to have union representation (Valletta, 1989: 433). Union presence in a law enforcement agency may result in officers remaining in their respective law enforcement agencies longer than in non-unionized law enforcement agencies. Such conditions would be consistent with findings in other organizations (Freeman & Medoff, 1984; Miller and Mulvey, 1991). Evidence suggests that such conditions probably do exist in law enforcement agencies, based upon large agencies' employee retention

rates. A report to the Urban Institute indicated that officer attrition due to retirement was only 20% for small agencies as opposed to 49% in larger agencies. Small agencies exhibited a proportionately higher number of departing officers whom had five years or less before leaving their respective agencies. Small agencies reported 66% of departing officers having 5 years or less experience with the agency, while large agencies reported that only 33% of departing officers had 5 years or less service. Small agencies also reported that 45% of their departing officers went on to work for other law enforcement agencies, while only 24% of departing officers at large agencies left to work for other law enforcement agencies (Koper, Maguire, Moore, & Huffer, 2001). These observations provide additional evidence that the "exit" choice of the exit-voice phenomenon appears stronger in the smaller, non-union agencies, and that the "voice" choice may be manifested more in the larger, unionized agencies. Stated in different terms, larger, unionized agencies tend to attract and retain law enforcement professionals at a greater rate than do smaller, non-unionized agencies.

Voice extends beyond just the issues of employee turnover and pay. Studies report that employees perceive organizations that include voice systems to be fairer than organizations that do not provide for voice, even in cases of adverse outcomes (Folger, 1977; Greenberg & Folger, 1983). Moreover, Folger and Cropanzano (1998: 171) concluded that voice, which acts as a process control in decision making, is an important predictor of fairness in the workplace. Process control refers to empowered influence over decisions and events within an organization. The union, through the collective bargaining agreement and grievance systems, exerts process control, especially with regards to employee welfare and working conditions. The union's level of effectiveness in the process contributes to the employees' overall perception of the union. Fryxell and Gordon (1989) surveyed over 2300 union and nonunion employees in four different

samples, with more than 1700 of these employees were from the public sector. The researchers found that "The amounts of procedural and distributive justice afforded by a grievance system were the strongest predictors of satisfaction with a union" (Fryxell & Gordon, 1989: 851).

Van Dyne and LePine (1998) further expand the definition of employee voice as non-required promotive behavior that does more than merely criticize. "Voice is making innovative suggestions for change and recommending modifications to standard procedures even when others disagree" (Van Dyne & LePine, 1998: 109). Voice, as embodied in public sector unions, acts as a process control that affects policies and budgets of local governments. The modifications to standard procedures suggested by public sector unions represent the functioning of voice within local government. That voice exerts influence on budget considerations of capital outlays and operating expenses as well as personal services expenditures. Evidence of this influence exists in specific line items of the financial reports submitted by local governments to the State of Florida. Local governments with police unions, which offer voice to law enforcement personnel, experience statistically significant different levels of police expenditures than local governments without such unions.

Organizational Voice: Successor of Exit-Voice

Banerjee and Somanathan (2001) examined the voice aspect from Hirschman's (1970) Exit-Voice theory, focusing on voice as it functions within organizations. Banerjee and Somanathan argue that voice is a process of communication "whereby the members seek to influence the leader by providing him with information without being able to dictate his choice…" (Banerjee & Somanathan, 2001: 191). A group of individuals with the same job descriptions, working in the same community, with the same superiors, and experiencing similar

situations, will develop similar concerns. As these concerns become formalized in a union voice, communications between the union and the decision maker are more systematic and pronounced.

Banerjee and Somanthan reason that the decision maker will choose what is optimal based on the decision maker's assessment of the probabilities of alternative states available at the time of decision. Simply stated, a rational decision maker will attempt to choose the best possible outcome of all possible worlds based upon the decision maker's perceptions. However, organization members may have different assessments and different perceptions in the same conditions experienced by the decision maker. Realizing that policy decisions are binding on all members of the organization, the only way in which members of the organization can influence the decision maker's decision is to provide the decision maker with information that will change the decision maker's assessment of the probabilities (Banerjee and Somanthan, 2001: 191). The information provided by the union to the employer at the time of bargaining is an effort to change the employer's (decision maker) perception of what is optimal in a given situation. The union, though collective bargaining, the grievance procedures, and other labor-management relations, provides information to the decision maker that expresses perceptions of the organization's members. As demonstrated by this study, these perceptions may extend beyond the immediate concerns of personal, immediate benefits, and may also include the members' (unionized police officers') perceptions of the levels of service being provided to the community, and the resources required to provide those levels of service. These concerns and influences would manifest themselves in the proportionate levels of spending in line item categories such as operating expenses and possibly even capital outlays.

The decision maker benefits from the higher level of communication supplied by the organization members because more information is available. The authors posited that "The

ability to get good advice is often seen as an important attribute of successful political leaders, and political decentralization has often relied on the ability of decision makers to make use of local information through appropriately designed institutions of participatory democracy" (Banerjee & Somanathan, 2001: 189). Members of the organization, whom are represented by the union, benefit in the communication process as well because their concerns are addressed. However, Bowen and Blackmon (2003: 1394) did note that employees are reluctant to use voice unless there is support from their co-workers. Freeman & Medoff (1979: 73) explained that workers in unionized firms are "more willing and able to express discontent and to object to managerial decisions" than workers in nonunionized firms. Unions provide moral support as well as formal support to their members for organizational voice to be expressed.

Public sector unions within local governments, functioning as "institutions of participatory democracy," convey the values of their members' ideology-infused contracts to policy makers within local government. Organizational voice, as envisioned by theorists (Banerjee & Somanathan, 2001; Bowen & Blackmon, 2003), and expressed through labor organizations, influences local government decision making. The voice phenomenon perpetuates the existence of labor organizations by bestowing upon these organizations a reason for being. Stated in different, but equally valid terms, the functionality of labor organizations actually personifies voice in labor-management relations.

Police Unions, Collective Bargaining and Public Sector Labor Relations

Unions embody and personify the very concepts of psychological contracts, Exit-Voice, ideology-infused contracts, and organizational voice. While the work environment in the public sector provides the venue for the manifestation of these theories, public sector labor

organizations furnish the vehicle or the means through which these concepts exert their existence in reality. The following section examines the processes that manifest the presence of psychological contracts, Exit-Voice, ideology-infused contracts and organizational voice. These processes in turn affect the functioning of local governments in a perceptible manner. Some of the effects of these processes will be demonstrated through existing empirical research and its attendant literature. Public sector labor unions and police unions in particular, use a repertoire of activities to further the welfare and concerns of their members. The activities primarily utilized by public sector unions are collective bargaining, political activities, and a hybrid form of both the previous activities that has been named *multilateral bargaining* by public sector labor relations scholars. The following section describes these union activities and notes the combined effects of these activities on local governments.

As will be discussed, the major theme of existing literature measures the impact of public sector unions on salaries and benefits. The overall effect of these unions on total departmental expenditures is also described by a number of studies. However, the literature largely ignores two important dimensions of police expenditures, the day to day operating expenses (non-personal services expenses), and the capital outlays required to equip law enforcement agencies. Since police unions in Florida collectively bargain for issues pertaining to working conditions and other concerns in addition to salaries and benefits, it would be reasonable to suspect that unionized police departments have greater expenditures than nonunionized police departments in line item categories other than salaries and benefits as well.

The following section will demonstrate the relationship between unions, higher salaries and benefits, as well as between unions and higher overall police expenditures. Upon this understanding of the link between unions and higher expenditures, the study bases its inferences

that union presence in a police department causes increases in other forms of expenditures, especially operating expenses and capital outlays. Additional training, equipment, or other considerations secured by unions at the negotiating table results in higher expenditures than in those departments not experiencing union presence. In later chapters, statistical analysis will document these inferences and determine the extent to which unions affect police department expenditures in all three categories of governmental object classification, personal services expenses, operating expenses, and capital outlays.

The following section also describes budgetary and financial processes within local governments. These processes translate negotiated issues secured during collective bargaining into funded realities. Both form and structure of these processes will be examined to determine the mechanisms responsible for implementing labor relations agreements. Statements of the research hypotheses result from and conclude the literature review. With these hypotheses, the study will attempt to isolate the effect of unionization on all three governmental expenditure categories, as well as the overall impact on total police expenditures.

History of Police Unions and Labor Relations in Florida

Two national police unions largely influence Florida law enforcement labor relations: The Fraternal Order of Police, and the Police Benevolent Association. The Fraternal Order of Police formed in 1915 as a local employee organization at Fort Pitt, Pennsylvania largely in response to 12 hour days and other poor working conditions prevailing at the time (Fraternal Order of Police, 2004). Originally, the Fraternal Order of Police functioned largely as a political entity rather than a collective bargaining representative. Presently, the Fraternal Order of Police is the largest professional police organization in the country with over 310,000 members

(Fraternal Order of Police, 2004). The Police Benevolent Association began as the Patrolmen's Benevolent Association in New York City in 1892. The organization started existence largely as a social institution without collective bargaining rights. By 1914, the Police Benevolent Association (PBA) had evolved into a political force that successfully defeated New York legislation dealing with police officers' rights to appeal dismissals (Colwell, 1994). In 1972, the PBA was established in Florida, and today has over 30,000 members in that state (Florida Police Benevolent Association, 2004). In the state of Florida, the Fraternal Order of Police reports having 21,000 members in 2004.[6]

Prior to 1958, no state had a municipal employee bargaining law, and public sentiment toward such employee bargaining, particularly police bargaining was hostile (Ichniowski, Freeman, & Lauer 1989). A number of court cases and local government policies before 1968 actually discouraged active union representation for police officers and other public sector employees. For example, in a 1963 Michigan Supreme Court decision (AFSCME v. City of Muskegon 369 Michigan 384, 120 N.W. 2nd 197, 1963), the Court upheld the Muskegon Police Chief's policy that essentially prohibited police officers from becoming members of unions (Morgan & Korstad, 1977: 3). This trend was reversed in 1968 when the U.S. Court of Appeals for the 7th Circuit ruled in the case McLaughlin v. Tilendis (398 F 2d 287, 7th Cir., 1968) that individuals' rights to form and join unions are protected by the First Amendment. Earlier, President John F. Kennedy took action that is credited with beginning the process of allowing public sector employees to unionize with Executive Order 10988 in 1962 (Kearney, 2001; Colwell, 1994; and Juris & Feuille, 1973). The Executive Order, which affected federal

[6] Florida number of members in the Fraternal Order of Police was provided by Kenny Mack, Secretary of the Florida Lodge, webmaster@floridastatefop.org.

employees only, largely contributed to the process of state legislatures granting full union representation in public sector labor negotiations.

In 1968, Florida voters expressed their approval for a proposed constitutional amendment that would allow state government employees the right of collective bargaining. However, political opposition to the amendment and other factors delayed actual enactment of the amendment until 1974 (Salerno, 1981: 39-41). During the intervening years between 1968 and 1974, the political ramifications regarding the issue of public sector collective bargaining created confusion and inconsistencies. The Florida Supreme Court issued a decision that reaffirmed state government employees with the right to bargain in the 1969 case of Dade County Classroom Teachers' Association v. Ryan. In 1970, however, then-Governor Claude Kirk arguing that public service should be above collective bargaining, issued an executive order which prohibited state agencies from bargaining with public sector unions. Kirk also stated that he would veto any legislation that permitted collective bargaining with public sector unions. In 1972, Governor Reuben Askew, Kirk's successor, extended Kirk's executive order while legislation pended in the legislature (Hudson, 1994).

The Dade County Classroom Teachers' Association filed a petition with the Florida State Supreme Court to order the legislature to show cause why the voter approved legislation was not enacted. When legislation proposals stalled and died in the House during the 1973 session, the Supreme Court reacted by creating a seven person commission. The Commission was charged with gathering information in preparation for issuing court-mandated guidelines for collective bargaining (Kearney, 2001). In response, the legislature enacted the 1968 voter-approved collective bargaining legislation in March of 1974 (Hudson, 1994). The legislation became known as the Public Employee Relations Act of 1974, and actually took effect December 16,

1974. The final version of the law can be found in Florida Statutes as Part II of Chapter 447 (Public Employees Relations Commission, 2004).

Prior to 1974, only five or six cities or counties in Florida participated in collective bargaining with employee organizations, and these were the more populous governments such as Miami and Dade County. When it became apparent that the Public Employee Relation Act would pass, other Florida cities and counties engaged in collective bargaining with their employees. Approximately fifteen Florida communities had negotiated contracts with their law enforcement officers by December 16, 1974, the date the Act became effective (Salerno, 1981: 40).

Local Government Collective Bargaining in Florida

Florida statutes grant state and local government employees in Florida a number of rights with respect to employee organizations, including: "To form, join, and participate in employee organizations; To negotiate collectively about wages, hours, and terms and conditions of employment; To be represented in grievances; and To act together to help or protect each other by legal means other than a strike" (Public Employees Relations Commission, 2004: 8).

Florida statutes designate the Public Employees Relations Commission (PERC) as the controlling body that determines the exact specifications or identification of each bargaining unit. Generally, these determinations are based on, but not limited to such criteria as: functional similarities of constituent employees; efficient administration of government; the organizational structure of the employer; the number of employee organizations with which the employer may have to negotiate; the community of interest; and other principles (Salerno, 1981). The criteria used by the Public Employees Relations Commission attempt to establish a bargaining unit that

would best serve the needs of the members of that unit without adversely affecting the efficiency of the governmental agency served by that unit, or render collective bargaining unwieldy for the involved parties. Once a bargaining unit registers with the Public Employees Relations Commission and is organized through certification elections, employer recognition follows, and the bargaining process with an employee organization begins.

Public sector unions interact with their employers according to two basic types of issues: issues that primarily affect individuals separately within the bargaining unit; and issues that primarily impact the bargaining unit collectively. In the first instance, grievance procedures specified by contract deal with discipline cases and rely upon "rights arbitration" to resolve disputes between management and labor (Carrell & Heavrin, 2004: 501). Since the scope of this study focuses upon the effects of the entire bargaining unit on local government, extensive discussion of grievance procedures will be omitted.[7] In the second issue that necessitates management-labor interaction, employee organizations rely upon negotiations in labor-management meetings, and more formally upon collective bargaining. Such issues are often submitted to binding interest arbitration in the event of impasse. Binding interest arbitration is rare in the private sector but used extensively in the public sector (Katz & Kochan, 2000: 457). In binding interest arbitration, an arbitrator mutually selected by the union and governmental agency considers the arguments presented by both parties, reviews the available facts and renders a decision that is binding on both parties of the dispute. In Florida, however, grievance procedures mandate binding arbitration at the final step but impasse resolution is affected

[7] For further information regarding this subject, the reader is encouraged to reference works by Kearney (2001), Dekker (1994), and Freeman and Medoff (1984) regarding public sector grievance procedures in general. For grievance handling procedures in law enforcement organizations specifically, the reader is directed to Juris & Feuille (1973), Salerno (1981) and numerous other sources. Specific grievance procedures for state or local government employees in Florida can be found in Section 447.401 of the Florida Statutes (Florida Statutes, 2004b).

through mediation and advisory arbitration (Salerno, 1981). Mediation and advisory arbitration refers to the process in which a trained negotiator attempts to elicit all pertinent arguments and facts from the disputing parties and attempts to forge an agreement between the parties largely through compromise. The mediator's position or opinion in the dispute is not binding on either party.

If mediation fails to resolve the dispute, or if either party declines mediation, the Public Employees Relations Commission can appoint or the parties may choose a "special master" (renamed "magistrate" by the 2004 Legislature, 106th Session) with expertise in labor relations. The Public Employee Relations Commission maintains a list of qualified special masters (magistrates). If the recommended decision by the special master or magistrate is rejected by either party, the impasse items are submitted to the public employer's legislative body (board of county commissioners, school board, etc.) for a deciding vote (Florida Public Employees Relations Commission, 2004). Ultimately, all collective bargaining agreements for state and local government employees in Florida must be approved by both the bargaining unit members and the public employer legislature (Florida Statutes, 2004a). In the event of rejection by either party, conflicting or disputed provisions of a collective bargaining agreement may not be enforced and are returned to further negotiations and possibly impasse procedures. The only provisions of an existing collective bargaining agreement that will be enforced under these conditions are those provisions which are undisputed by the parties.

The State of Florida permits a relatively broad scope of bargaining, or range of topics available for discussion at the negotiating table. An advisory legal opinion regarding authorized collective bargaining items issued by the Florida Attorney General on July 15, 1977 remains in force at the time of writing. The opinion issued by the Florida Attorney General stated that the

Collective Bargaining Act, codified as Part II of Chapter 447 of the Florida Statutes, "…does not provide a definitive answer to what constitutes a proper subject for collective bargaining…" (Florida Attorney General, 2004). Section 477.309 (1) simply declares that after an employee organization has been certified, that organization and the appropriate public employer "…shall bargain collectively in the determination of the wages, hours and terms and conditions of employment of the public employees within the bargaining unit" (Florida Statutes, 2004a).

The topics discussed in law enforcement collective bargaining sessions and in other labor management meetings comprise a broad spectrum of topics such as: financial compensation for off-duty court appearances (Juris & Feuille, 1973: 152); citizen review boards (Colwell, 1994: 278); wages (Salerno, 1981: 27-30); police roles in the community (Magenau & Hunt, 1989: 547; Magenau & Hunt, 1996: 1315); staffing (Zax, 1989: 30; Carter & Sapp, 1992: 28); retirement and insurance benefits (Feuille, Delaney, & Hendricks, 1985a); supplemental pay benefits such as shift differential pay (Zhao & Lovrich, 1997: 511); education and training (Carter & Sapp, 1992: 37); and various other topics. As noted previously, all of the foregoing topics are subject to bargaining under existing Florida State law (Florida Attorney General, 2004; Florida Statutes, 2004a: 447.309). Results of bargaining for these topics manifest themselves in local government financial records through personal services and operating expenses.

As collective bargaining progresses over time, police unions tend to become more influential within the host local government. Feuille, Delaney, and Hendricks (1985: 162) collected 1,631 police union contracts which were in force during the years 1975 to 1981. Feuille et al discovered that labor contracts became more favorable to unions with the passage of time. The benefits won through negotiations in many cases are cumulative. Continuing negotiations introduce new provisions and changes in contract language which largely favors labor whether

arbitration is an option or not (Feuille, Delaney, & Hendricks, 1985b: 179). While there are restrictions placed on union gains by fiscal adversity in communities, research has demonstrated that unions also have a substantial effect on nonwage bargaining outcomes over time (Lewin, Feuille, Kochan, & Delaney, 1988: 507 - 510). Many of these provisions are long-lived, and subsequent contracts retain these clauses while adding additional clauses. As an example, one bargaining issue studied by Carter and Sapp (1992: 37) was education and training. Carter and Sapp compared the results from their survey with a survey conducted 10 years earlier and found that 81% of collective bargaining agreements from their current survey had provisions dealing with police officer education and training, the same percentage of collective bargaining agreements with training clauses as the earlier study. Carter and Sapp surveyed all U.S. law enforcement agencies serving populations of 50,000 or more, or those with more than 100 sworn officers for a total of 699 agencies (1992: 19).

The researchers also found that in 1991, police union collective bargaining agreements exhibited more clauses dealing with staffing requirements (73%) than in 1981 (61%) (Carter and Sapp, 1992: 28). Clauses dealing with staffing requirements refer to the general concern about the number of sworn officers in a unit. Among the conclusions that Carter and Sapp extracted from their study that there was "a defined trend toward delineation of review procedures (in disciplinary cases) in the CBA's provisions. This is an important indicator of a reduction in management prerogatives" (1992: 26).

These collective bargaining agreement provisions may have resulted from legislation by state and local governments. One study (Schwochau, Feuille, & Delaney, 1988) included research of municipal police bargaining in 449 cities for 3 different years separated by five year

intervals[8]. The focus of the study concentrated on the legal environments of collective bargaining agreements, particularly mandated "duty-to-bargain laws. In a cross-sectional study, Schwochau et al researched the police department expenditures under four different conditions: 1) Nonbargaining cities; 2) Collective bargaining cities without a mandate to bargain; 3) Collective bargaining cities with a legislative mandate to bargain but no arbitration availability; and 4) Collective bargaining with legislative mandate to bargain and access to arbitration. The researchers found that controlling for certain aspects of the economic environment, collective bargaining in accordance with legislated negotiation mandates resulted in significant influences on human and financial resource allocations in these local governments (Schwochau, Feuille, & Delaney, 1988: 435). Schwochau et al determined that cities bargaining an average of eight years with police unions experienced approximately 7.5% greater police department expenditures than nonbargaining cities (Schwochau, Feuille, & Delaney, 1988: 429). Legislation mandating negotiations between police departments and police employee organizations, according to Schwochau et al., thus affects resource allocation and enhances union power as well. A more recent study (Gely & Chandler, 1995: 179) supported the Schwochau et al findings and determined that collective bargaining laws more favorable to protective services are more positively and significantly associated with police department expenditures. It is interesting to note that Schwochau, Feuille, and Delaney found that their results indicated that bargaining under arbitration did not influence resource allocation to police departments more than did legally mandated bargaining. Legally mandated bargaining influenced police department expenditures to a greater extent than did the availability and use of arbitration.

[8] Schwochau et al selected the years 1971, 1976, and 1981 for the study because detailed budget information was available for these years only across all samples.

The Collective Bargaining Process – a Function of Voice

Public sector collective bargaining in Florida emerges from state legal mandates to negotiate when members of bargaining units have organized. Both Article 1, Section 6 of the Florida Constitution and Section 447.309 of the Florida Statutes mandate collective bargaining once an employee organization has been certified. Section 447.309 also requires public employers to bargain in good faith and that the collective bargaining agreement be reduced to writing. Most of Florida's neighboring states in the South do not have such comprehensive statutes that give the right to bargain collectively to their employees and to the employees of their constituent local governments. Public sector unionism is thus greater in Florida than many other southern states (Cohen & Cohen, 1998: 122). Given these observations, a discussion of the collective bargaining process would be appropriate.

Specific unions, even within the law enforcement field, may differ from one another dramatically in the types of goals, concerns, and values held by their respective members and officers. Despite the variations, virtually all of the unions share at least the same primary objective: to negotiate with the employer a written collective bargaining agreement that addresses employment conditions and union-management relationships in terms that are acceptable to the pertinent union membership (Sloane & Witney, 2004: 177). Haber and Wellington (2003: 149) summarize the collective bargaining process in a more paradoxical context: "In each of the negotiations, each party has the incentive to cooperate with the other for mutual benefit, and simultaneously, the incentive to seek gain at the other's expense." Both parties in collective bargaining assemble negotiating teams to present (and maintain) their interests during bargaining sessions.

While variations occur in representative negotiating teams, a number of characteristics appear to be common to most local labor negotiating teams. A local union negotiating team often consists of ex-officio officers (such as the president and other officers), and a chief steward or committee member (Carrell & Heavrin, 2004: 204). Bargaining units affiliated with the Fraternal Order of Police (FOP) in Florida select their negotiating teams based on the status of certified bargaining agents. Most FOP local teams consist of the lodge president, chief steward, and shift representatives.[9] The Florida Police Benevolent Association affiliates prefer selecting a bargaining team informally and using an attorney or experienced negotiator provided by the state or local organization as the chief labor negotiator.[10]

The management negotiating team varies from organization to organization as well. Local governments utilize the widest variety of management representatives in collective bargaining (Kearney, 2001: 102). Florida alone has 67 counties and approximately 300 municipalities report expenditures for their own local law enforcement agencies (Florida Department of Financial Services, 2004). While a great deal of variation exists in the composition of negotiating teams with such a large number of local governments, some generalizations can be made. Larger public employers tend to use a labor relations director, or management/staff personnel experienced in labor relations. Florida requires that the chief executive officer of the appropriate public employer or his/her representative negotiate with the union bargaining agent.[11] Often the designated representative is an official familiar with the operations of the bargaining unit, such as the Police Chief in smaller communities. Whether they act as chief negotiator or not, in small police departments with limited budgets and personnel, the

[9] Information provided October 13, 2004 by George F. Hachigian, Senior Staff Representative for the Florida Lodge of the Fraternal Order of Police.
[10] Information provided October 13, 2004 by Hal Johnson, Florida Police Benevolent Association Legal Services.
[11] Florida Statutes, Section 447.309, Subsection 1.

community police chiefs take an active role in collective bargaining (Thibault, Lynch, & McBride, 1998: 390). Usually, in smaller communities, the central management staff of a local government absorbs the functions of labor relations, which includes collective bargaining (Unsinger & More, 1989: 6). Kearney (2001: 103) noted that larger cities (over 250,000 in population) relied on professional negotiators and full time labor relations staff to represent management at the negotiating table, while midsized cities (50,000 to 250,000 in population) tend to depend on the personnel director or resident labor relations professional in bargaining sessions.

Depending on the jurisdiction, some local governments retain an outside consultant, or an attorney well versed in labor law, to serve as the chief negotiator for management, or at the very least to act in an advisory capacity (Kearney, 2001: 104). Some scholars (Gely & Chandler, 1993b: 381) have observed that economic and legal environments, complexity of the bargaining, and certain demographic characteristics of the municipality influence the municipal organizational structure for collective bargaining. In some cases, the budget director and personnel director may join the management negotiation team (Chandler & Judge, 1993). As noted by Kearney (2001: 100), there is no conventional model of the collective bargaining management team in local government.

Regardless of the designated chief negotiators for both sides, as discussed previously, Florida Statutes specify that a collective bargaining agreement signed by both the chief executive officer and the union bargaining agent is not binding until approved by the public employer (legislative body) and ratified by the public sector employees who are members of the labor organization.[12] The final step of collective bargaining for the private sector, in contrast, usually

[12] Florida Statutes, Section 447.309, Subsections 1, 2(a), 2(b), 3, and 4.

requires only ratification of the agreement by majority vote of members of the private sector union (Fossum, 1999: 342-343).

The issues submitted for collective bargaining emanate from different sources. Usually, the rank and file membership can express their concerns to the union informally by discussing concerns with union officials, or more formally through union meetings (Carrell & Heavrin, 2004: 212). However, unions and union bargaining teams also conduct surveys of their members prior to bargaining sessions by using questionnaires to determine which issues are most important to the members (Carrell & Heavrin, 2004: 212). Innovative unions will conduct frequent member-to-member surveys to provide maximum input from the rank and file for setting each union's priorities (Rubinstein, 2001: 199) Some public sector unions will even survey nonunion members in their bargaining unit to consider their concerns as well for bargaining issues.[13] These efforts ensure that employee voice is thoroughly understood by union officials. Once employee voice has been determined, unions attempt to codify this voice formally in provisions of the collective bargaining agreement.

In addition to the rank and file members generating topics for bargaining, bargaining issues can evolve through institutionalized venues. Fossum (1999: 228-229) differentiates between employee interests and union interests. As an institution, Fossum argues, a union desires security as the employees' representative. As a result, the union may have to engage in trade-offs with management to secure their own interests. For instance, through budgetary restraints, the employer may be faced with cutting costs. In such a situation, Fossum uses the example of a union that might be willing to sacrifice some small fraction of employment in a unit to gain higher wages that will increase its organizing leverage in nonunion units. Clearly, such strategies

[13] Information provided by Dawn Trouard, President of the United Faculty of Florida, University of Central Florida Chapter, in a February 24, 2004 interview.

would be counter to the benefits of individual members desiring employment security, or seeking additional staffing in their unit. In this situation, employee voice is modified ostensibly for the greater good of the collective employees, and the continued effectiveness of union voice.

In addition to noting that a union might well emphasize union security at the expense of member preference, Katz and Kochan (2000: 188) suggest that other factors influence the final selection of union bargaining objectives. Individual union members have varying degrees of influence within the organization itself. Older or more skilled members, according to Katz and Kochan, might possess more influence within the union than other members, and as a result, the bargaining objectives may reflect some employees' goals more than others. Union leaders also evaluate objectives according to the probabilities that they may be obtained. Finally, Katz and Kochan write, union leaders weigh strategic options and make decisions based on those evaluations. The degree of internal communications within the union usually determines the effectiveness, from the members' point of view, of the union bargaining priorities in collective bargaining sessions.

Other topics for labor bargaining issues may actually originate in a totally different and remote local government. Before collective bargaining, public sector unions not only review their own prior contracts, but also examine the existing labor agreements of comparable occupational groups in other similar jurisdictions (Kearney, 2001: 115). This preparatory analysis increases familiarity with other possible benefits, and provides justification for proposals submitted to local negotiations. However, both sides of the negotiating table have the capability to examine labor agreements of other jurisdictions, and this capability can become a liability for either party. Either party may examine the labor agreements of adjacent or nearby communities only to find that the other party is justified in making a claim for concessions.

Management may find that their community pays the lowest salary in the area, or the union may find that their members are indeed the highest paid law enforcement employees for comparable communities in their section of the state.

The broad statement of Florida Statutes Section 477.309, and a subsequent Florida Attorney General evaluation of the section, provides wide latitude of topics for collective bargaining (Florida Attorney General, 2004). Multiple issues in complex negotiations require structure and planning to maintain control and prevent a breakdown in good faith bargaining. Once negotiation teams are formed, prenegotiation conferences usually are conducted to establish ground rules, make initial, formal presentations of proposals and demands, set the bargaining agenda, and schedule negotiation sessions (Kearney, 2001: 115; Unsinger & More, 1989: 16-19).

After these preliminary guidelines are established, the collective bargaining sessions commence. The economic and noneconomic proposals are usually separated, and agreements are often made immediately on less important items (Carrell & Heavrin, 2004: 216-219). Major issues, particularly those involving salaries and benefits often take longer to resolve, and can result in an appeal to public sympathy to exert pressure on the negotiating parties. Public sector unions effectively use political and community alliances in their relations with government employers (Kreisberg, 2004: 228). There is strong evidence that police union political activities that pressure politicians are more effective in increasing police department expenditures than are political activities that pressure voters (O'Brien, 1994: 342). A firefighter union in a Florida municipality, the Winter Springs Fire Union, resorted to distributing brochures to the general public during stalled contract talks. In the brochure, the Fire Union predicted that the City's

"unwillingness" to respond to their demands would result in future loss of life.[14] In another case, a police association for El Paso, Texas Deputies issued handbills that criticized a county judge who, as a member of the commissioner's court charged with approving the labor agreement, initially opposed a settlement with the union (Burpo, DeLord, & Shannon, 1997: 231-239). Both of the foregoing examples illustrate the efforts of public sector unions to increase pressure on the bargaining process should labor contact negotiations stall.

In the United States, union strategies include an incursion of labor into what once was considered strictly management's domain (Cutcher-Gershenfeld & Kochan, 2004: 22). Employees and unions in the nation seek greater influence in decision making for their places of employment. This situation holds true especially for protective services. Modern law enforcement officers with greater levels of education expect to be included in decisions involving their on-the-job fate (Sewell, 2002: 18). Police unions, for the most part, mirror similar concerns of most labor organizations, that is, their focus is primarily on salaries and working conditions (Coulson, 1993: 119-120). As discussed previously, however, many other issues can be discussed in police collective bargaining sessions. Williams (1992: 299) identified twenty-eight "police-specific contract clauses" commonly used in police union negotiations in addition to the numerous generic issues of public sector collective bargaining. These police-specific issues ranged from "officer bill of rights" provisions to such items as mandated police equipment. Sloane and Witney (2004: 191) report that during one collective bargaining session, the local police association in Rockville Centre, Long Island demanded from its employer municipality no fewer than 85 concessions. Excessive demands such as those submitted in

[14] Information from February 11, 2003 interview of Ron McLemore, City of Winter Springs, FL City Manager. City of Winter Springs, FL Labor Attorney Jeffrey E. Mandel October 16, 2002 letter to Fire Union Attorney Richard P. Siwica provides documentation to the event.

Rockville Centre, often are intended as strategic attempts to gain concessions from management. Labor relations scholars label the strategy as "blue skying" (Kearney, 2001: 118).

Public sector management negotiators, while engaging in "blue skying" strategies at times, are more likely to engage in a negotiation strategy called "Boulwarism." The term was derived from the collective bargaining tactics of Lemuel R. Boulware, a former GE Vice President of Public and Employee Relations in the 1960s. Simply defined, Boulwarism consisted of accumulating all available information before negotiations, communicating with the employees directly, and developing a negotiating posture that was largely a "take-it-or-leave-it" attitude. The major failing of this approach lies in the realization that very few negotiators enter collective bargaining sessions armed with all available facts. This collective bargaining tactic later resulted in an adverse decision (for GE) by the National Labor Relations Board which ruled the tactic as bad-faith bargaining. The ruling subsequently was upheld by federal courts, including the U.S. Supreme Court which refused to disturb the decision (Sloane & Witney, 2004: 206).

Section 447.309 of the Florida Statutes directs public sector chief executives to engage in "good faith bargaining," which may discourage Boulwarism in Florida public sector collective bargaining. However, Florida Statutes also specify that collective bargaining agreements are not binding unless approved by the pertinent legislatures,[15] and Florida Statutes also state that failure of the legislature to appropriate funds sufficient to finance the collective bargaining agreement is not an unfair labor practice[16] such as failure to bargain in good faith. This provision of Florida Statutes bestows an advantage upon the public sector employer that private sector does not possess. In the private sector, intervening government agencies in labor disputes perform as a

[15] Section 447.309 Subsections 2(b), 3, and 4.
[16] Section 447.309 Subsection 2(b)

neutral party, however in the public sector government is not likely to be neutral to its own bargaining (Shafritz, Riccucci, Rosenbloom, & Hyde, 1992: 238). Collective bargaining roles are thus very different in the private and public sectors, and unions in the public sector, without the ability to cause a work stoppage in many states including Florida, must rely on different tactics to augment negotiations than those used in the private sector (Guiler & Shafritz, 2004: 202).

Multilateral Bargaining

One of the different tactics used by the public sector unions arises from the natural structure of governmental functioning. In the private sector, labor-management negotiations are restricted to the bilateral relations between those individuals that primarily represent the interests of the employer, and those individuals that act as a bargaining agent for the employees. In the public sector, contracts are seldom negotiated by the employer and the employees' representative alone. Often local government citizens, their representatives, and interest groups influence negotiations even those these parties never come near the negotiating table (Coleman, 1990: 102; Katz & Kochan, 2000: 340). Texas provides an example of interest group influences on bargaining through the Texas Fire and Police Employee Relations Act of 1973. According to this act, local referenda determine whether or not police and fire department employees in communities are given the right to bargain collectively. Barnum and Helburn (1982: 333) analyzed the results of referenda in 22 Texas cities, including Dallas, Laredo, and Texas City to measure the extent of union influence on the local electorates. The researchers found that when labor organizations endorsed the referenda, the positive vote (allowing collective bargaining) increased by 4.2 percent in the city with low unionization rates, to 16.8 percent in the city with the highest rate of unionization (Barnum & Helburn, 1982: 339). In the cases of Texas Fire and

Police Employees Relations Act, the employers (local governments' chief executives and legislative bodies) had little voice in determining whether or not bargaining would occur in their communities. Organized labor, as an interest group, influences police union issues in local government.

Such influences extend beyond public voting behavior, however. Public officials are often approached with the intent of influencing the negotiating positions of administrators who are ultimately responsible to these elected officials (Fossum, 1999: 534). Between 1985 and 1989, police officers in San Antonio, Texas improved their mediocre wage and benefit package to one of the highest compensation plans in the nation (Burpo, DeLord, & Shannon, 1997: 209). This feat was accomplished through a carefully orchestrated effort on the part of the union (San Antonio Police Officers Association) to increase political and community influence in San Antonio: A Political Action Committee was inaugurated in 1986; Materials were distributed in political districts of elected officials opposed to increased police pay and manpower; A political consultant was hired; The union contributed thousands of dollars to local charities; The union joined the city's four chambers of commerce; and a network of union public relations were established with city officials. Union officials attribute their success in San Antonio police collective bargaining to the foregoing actions (Burpo, DeLord, & Shannon, 1997: 211-214).

Valletta (1989: 431) also considered multilateral bargaining as a public sector union advantage. Valletta described two tactics involved in multilateral bargaining: the "end run" in which public sector unions can appeal to a political official (such as a mayor) if they do not receive the desired outcome when bargaining with the executive (for instance a city manager); and "double-deck bargaining" in which the public sector unions first negotiate a collective bargaining agreement with the executive and then appeal to the legislative body of the

government for an improved settlement (1989: 432). Coleman (1990: 104) adds another dimension to multilateral bargaining by arguing that a solidarity theme may develop between two or more unions, for instance between police and firefighters. This relationship would contribute additional support to police union negotiators engaged in bargaining talks.

Some scholars (Katz and Kochan, 2000: 340) conclude that the required approval by the legislative body of the collective bargaining agreement is one of the multilateral characteristics in the public sector bargaining process. Carrell & Heavrin (2004: 249) reason that since the legislative body has the authority to determine the budget, involvement at an impasse stage of negotiations constitutes a new level of bargaining. Since guidelines of the Public Employees Relations Commission require remanding impasse items to the pertinent legislative body in collective bargaining disputes should both sides reject the recommended decision by the special master or magistrate, multilateral bargaining has the potential of being a common occurrence in Florida police union negotiations. However, Feuille and Anderson (1980: 315) wrote that should multilateral bargaining occur in local government bargaining, it was more likely to be the "end run" variety in which the union bypasses the designated negotiators to deal with other city officials outside the official bargaining process. Feuille and Anderson also determined that the common characteristics in multilateral bargaining are "a divided management and a politically aggressive union" (1980: 315). The end run variety of multilateral bargaining is thus less likely to occur if the common council and the city manager both are committed to reducing costs and the union is not very active. However, if some members of the common council are sympathetic to the police union but are not in agreement with the manner in which a city manager is conducting negotiations, there is a better chance of an aggressive union securing support among such members.

The subject of multilateral collective bargaining does not exact a consensus among scholars. Gely and Chandler (1995: 171; 1993a: 301) contend that union political activity affect departmental expenditures more than multilateral collective bargaining. In an attempt to understand the impact of unionization on local governments, Gely and Chandler (1995: 173; 1993a: 301) segregated the effects of union bargaining power and union political power. The researchers found evidence that when they accounted for union political activities, a collective bargaining agreement between protective services unions (police and firefighters) and a municipality did not significantly increase departmental expenditures. However, union endorsements of candidates and campaign contributions resulted in significant and positive effects on departmental expenditures (Gely & Chandler, 1995: 178). O'Brien (1996: 99; 1994: 322; 1992: 189) credited campaign activity with increased departmental expenditures. The Gely and Chandler study and the O'Brien studies demonstrate that unions advance employee voice beyond the confines of collective bargaining to achieve effectiveness. In the instances quoted by the studies, the researchers provide evidence that public sector unions deliver employee voice to elected officials as well as to management. The Gely and Chandler studies and those of O'Brien used police and fire unions for data samples.

While the Gely and Chandler and O'Brien studies may have identified the characteristics of unionization that contribute to increased departmental expenditures, the information yielded by these studies is of greater use to public sector unions for crafting strategies of activism. The effects on each of the individual expenditure categories (personal services, operating expenditures, capital outlays) are still not fully explained. The public administrator would benefit more from an understanding of the effects of unionization on expenditure categories than realizing which political activities are of greater benefit to the union. Moreover, the overall effect

of unionization in a public sector organization on local government expenditures is of critical interest to the public administrator who is responsible for enlightening the community's political officials to what degree and on the exact manner in which unionization impacts each budget category. The cross sectional studies of Gely and Chandler and O'Brien may be overly sensitive to the political cycles of election years. A longitudinal study would assuage such conditions.

The present study accommodates the administrator's perspective to a greater degree than the Gely and Chandler and O'Brien studies by examining the specific expenditure categories affected by the presence of unions. This information would be useful to management representatives negotiating collective bargaining agreements because it would provide management negotiators with an understanding of the impact that specific concessions at the bargaining table would create in the upcoming fiscal years. In addition, the study would provide management representatives with information to share with bargaining agents that could assist both parties in reaching an accord. If the union is unconvinced that a proposal would result in significant hardship on the local government, it would be less likely to compromise on an issue. Management negotiators with a clear understanding of budgetary consequences for labor negotiations would be better prepared to successfully fulfill their roles and their responsibilities to the local government.

Collaborative Management

Collective bargaining, particularly in the United States, has been characterized by adversarialism. Kearney and Hays (1994) argue that this situation exists as a result of the competitive and individualistic spirit prevailing in American society. A historical mutual suspicion of labor leaders and managers exist at all levels in many organizations. The scholars

point to the litigious propensities prevalent in the United States, and to the fact that even the American education system "is premised on individual competition-not cooperation" (Kearney & Hays, 1994: 48). However, some scholars believe that the adversarial relations fostered by collective bargaining are inadequate to deal with emerging issues that require cooperation rather than competing bids for power (Rubin & Rubin, 2003: 92; Rubin & Rubin, 2001: 7).

Participative decision making might compensate for the difficulties encountered by collective bargaining, especially in local governments. Collective bargaining often creates an environment of adversarial relations in which the participants champion very different interests. The unions may argue for greater benefits for their members while public administrators may be less inclined to increase benefits because of scarce resources and subsequent tight budgets. This situation can result in conflict which impacts labor-management relations as well as such job satisfaction.

Studies (Albright, 2004; Locke & Schweiger, 1979) indicate that participative decision making results in a perceptible decline of conflict, improvement in productivity, increased job satisfaction, and effective problem solving. Forms of participative decision making include such programs as: Total Quality Management (TQM); Quality Circles (QC); quality of working life programs (QWL); Labor-Management Committees; and related approaches (Kearney & Hays, 1994). Participative decision making, or collaborative management, has become a major topic of discussion for organizational reformers [17] (Rubin & Rubin, 2003: 92). Collaborative management in the public sector enjoys a security in existence not available to the private sector because of the restrictive language of the National Labor Relations Act (Kearney, 2001: 339). The National Labor Relations Board determined in its 1992 *Electromation* and *duPont* decisions

[17] However, the concept itself is not new. In the United States, government experimented with participative approaches such as the Labor-Management Committee as early as the 1920s (Kearney, 2001: 340).

that employer-employee committees formed to implement collaborative management violated the employer-domination provision of the National Labor Relations Act (Carrell & Heavrin, 2004: 173). Since the National Labor Relations Act applies only to the private sector and the United States Postal Service, many state and local governments are free to implement collaborative management programs according to their labor laws. The U.S. Department of Transportation has aggressively pursued collaborative management under the label of the Department's Partnership Council (Albright, 2004: 45). Indianapolis has used collaborative management in the form of Labor-Management Partnerships since the former Mayor Stephen Goldsmith's administration instituted the program in 1995 (Rubin & Rubin, 2001: 12).

The disadvantage of collaborative management programs such as Labor-Management Partnerships is that their existence are often at the mercy of politics (Light, 2003: 82; Albright, 2004: 43-44). The Clinton administration issued Executive Order 12871, which created a National Partnership Council and required labor-management partnerships in all government agencies. The Bush Administration, however, rescinded Executive Order 12871 and dissolved the National Partnership Council (Albright, 2004: 43-44). The Bush Administration did allow use of the labor-management partnerships, but left implementation of labor relations strategies up to the individual agencies.

Collaborative management relationships vary in terms of the number of participants, the scope of issues, and the organizational level at which collaborative recommendations can be implemented. While this variation occurs from organization to organization, some common characteristics emerge in serious attempts at collaborative management. One such characteristic was the proportion of labor representatives to management representatives. A survey revealed that Labor-Management Partnerships were usually designed with an equal number of union and

management representatives (Albright, 2004: 47). It appears that equal representation as manifested in terms of the number of participants from each party ensures, or at least demonstrates, the spirit of cooperation. As far as issues included in collaborative management, Rubin and Rubin (2001: 17) reported that the chief operating officer of Indianapolis' Goldsmith administration "preferred to involve the union in everything." Albright (2004: 47) noted that over 90 percent of surveyed partnerships responded that formal recommendations were submitted to senior management and that the recommendations were accepted and acted upon.

Collaborative management, regardless of its form, was not intended to replace collective bargaining. Kearney and Hays (1994: 48) believe that unions are necessary for participative decision making, and note that collaborative management programs tend to emerge from collective bargaining environs. Rubin and Rubin (2001: 22) link collective bargaining and collaborative management even more strongly: "Any reform in the delivery of public services must be based on the traditional collective bargaining relationship, which in turn becomes the infrastructure for the parallel process of collaboration." Stated in different terms, collaborative management does not supplant collective bargaining, but instead relies on collective bargaining for its existence. Rubin and Rubin aptly described the collective bargaining relationship as an "infrastructure" for collaborative management because the collective bargaining relationship establishes the police union as the recognized representative of the employees. But since the issues discussed in collaborative relationships differ from those of collective bargaining, collaborative management emerges as a separate entity from the process of collective bargaining. Collaborative management pursues goals of mutual interest, especially those related to the delivery of public services. Collective bargaining, on the other hand, usually deals with the individual and collective interests of the union and its members. Collaborative management

attempts to jointly resolve common problems and improve organizational functioning, while collective bargaining concentrates on the differences of values between management and labor, and devotes its energy to achieve a compromise more than a complete resolution of issues.

Two major obstacles retard the use of collaborative management in local governments. The first obstacle is legislative in nature. In all fifty states, whether or not collective bargaining laws exist, significant statutorial limitations exist for labor-management schemes (Dilts, 1993: 309). These laws severely restrict management discretion to delegate or share authority. The state and local government legislatures have, in the process of agency codification, specified the authority of each constituent governmental entity in a very highly defined functional form. These specifications extend to the individual agency and no further. For instance, in collaborative management, the parties may decide to purchase more vehicles for the community which may require additional funding. However, according to Florida Statutes, despite any agreements between the chief executive (or designee) and unions, the legislative body is responsible for approving and appropriating funds.[18] Collaborative management decisions in this and other respects are thus systemically and statutorily restricted.

The second major obstacle to collaborative government in local governments arises from the structural dynamics of the employee labor organizations. Internal union politics often challenges union participation in managerial decision making (Rubinstein, 2001: 187). Union members perceive participative decision making as a return to the company dominated unions of the 1920s (Dilts, 1993: 305). At the root of the issue is the balance of individual union member concerns with the collective concerns of the labor organization. Increase tension has been noted among the rank and file when individual representation efforts seemed to be sacrificed for the collective interests of the membership as expressed in the decision making process (Rubinstein,

[18] Section 447.309 Subsections 2(b), 3, and 4.

2001: 175). As an example, during a collaborative management session, both union and management might identify a practice that may jeopardize the safety of others. A union employee engaged in such a practice may subsequently be disciplined by management. Since the union collaborated with management in implementing the safety policy, the ability of the union to rigorously defend the employee from disciplinary action may be compromised. A less obtrusive form of labor-management cooperation stated in labor-management contract clauses seems to gain more acceptance from the rank and file membership. In such cases (e.g., labor management meetings), while the union secures a voice in the decision making process, the interests of the union members (primarily individual interests) will purportedly retain their priority status since the union decision-making participation option is voluntary while the union representation function is mandatory.

While labor-management partnerships in Florida police departments are rare, if nonexistent,[19] a large number of police departments in Florida contain sections in collective bargaining agreements dealing with labor-management meetings, which discuss matters that are not collective bargaining issues.[20] Although the labor-management meeting is not as aggressive in approach to collaborative management as labor-management partnerships, such participative decision making provides an additional venue for voice. As stated previously in the discussion of exit-voice, Harlos (2001: 329) found that informal systems tend to allow greater procedural variations because such systems tend to be poorly specified. Unions with collective bargaining agreements inject the essential formality into the work environment which then offers the

[19] Hal Johnson, Florida Benevolent Police Association Legal Services, reports that he is unaware of any labor-management partnerships in Florida law enforcement agencies.
[20] Information provided by Florida Fraternal Order of Police Senior Staff Representative George F. Hachigian. Hachigian explains that the labor-management meetings are held monthly or quarterly to "discuss anything that is not a collective bargaining issue."

potential for more structure required by collaborative management programs such as Labor-Management Partnerships.

In Florida, a more collaborative rather than an adversarial approach appears to be emerging in collective bargaining relationships among the state's public school districts. Research of both union and management negotiators from the 67 public school districts revealed that, on average, participants from both sides of the negotiating table believe that that the values, attitudes, mechanics, and procedures reflected a collaborative philosophy toward collective bargaining (Falvey, 2002: 88). Moreover, school districts that have adopted a more pronounced form of collaborative approach to collective bargaining experienced a significant decrease in the number of grievances filed within a school district (Franco, 2002: 110) and smaller union densities than school districts utilizing the traditional style of bargaining (Franco, 2002: 95). The school districts that embraced collaborative approach actually experienced lower average salaries when compared to demographically similar school districts using a more traditional approach to collective bargaining (Franco, 2002: 97). However, traditional approaches to collective bargaining and labor-management relations continue to impact local government decisions as well. These impacts can be discerned in the levels of local government expenditures.

The Influence of Exit-voice within Local Governments

Once the bargaining issues have been resolved, either through agreement or the impasse procedures previously discussed, and the collective bargaining agreement has been approved by the legislature and by the union members, appropriations from the legislature fund the provisions of the new contract. At the end of the fiscal year, the effects of the change in budget allocations to accommodate the collective bargaining provisions will be experienced by the local

government. Before examining the actual mechanics of the budgetary processes involved, a review of the literature will be conducted to understand the existing research of the actual impact law enforcement unions have on local government police expenditures.

Public sector unions, exerting subunit power, provide labor resources to governments, and thus are presumed to have some influence within governments, including the budget process. Feuille and Delaney (1986) analyzed data on police salaries in more than 900 American cities during a ten year period. The researchers found evidence that supported their hypotheses that collective bargaining had a significant and positive effect on police salaries (Feuille & Delaney, 1986: 233). The study's results also yielded evidence that the availability of arbitration had a positive but modest effect on police salaries, but that salaries did not vary significantly between cities that used the arbitration option and the cities that relied on collective bargaining without resorting to arbitration (Feuille & Delaney, 1986: 228).

In their 1988 study, Schwochau, Feuille, and Delaney concluded that bargaining cities (those with collective bargaining agreements) had greater police department expenditures than non-bargaining cities when resources were scarce (1988: 418). Schwochau et al assembled collective bargaining status data for 1,071 cities that had their own police force and populations of 25,000 or more. The researchers concluded that by gaining a collective voice through unionization in their employment environs, employees increase their relative power within the organization (Schwochau, Feuille, & Delaney, 1988: 420). Moreover, collective bargaining allowed unions to command greater resources within their environment (1988: 433), up to 7.5 percent higher police expenditures than in nonbargaining cities (1988: 429).

Table 2. Review of selected empirical studies regarding unionization effect on local government expenditures.

Author/Year	Study	Sample	Date of Sample	Methodology	Results
Zhao & Lovrich (1997)	Collective bargaining effect on supplemental compensation	Law Enforcement Management and Administrative Statistics Report (LEMAS): 2,945 law enforcement agencies	1990	Logistic regression analysis	Existence of a collective bargaining mechanism in large police agencies is significantly correlated with the presence of supplemental pay benefits favorable to officers.
Magenau & Hunt (1996)	Role content in unionized v. non-unionized departments	830 officers from police departments of 15 cities with population> 100,000 in various geographical areas of the country	1995-1996	Cluster analysis, canonical analysis, multiple regression analysis	Unionization is related to greater emphasis on the law enforcement component of the police role in a community
Gely & Chandler (1993a)	Impact of Police & Firefighter Unions on departmental expenditures	Police & Fire Departments in 614 Cities > 25,000 population	1981 & 1986	Ordinary Least Squares Regression	Presence of a Collective Bargaining Agreement increases the overall level of departmental expenditures. 19% higher expenditures in bargaining than non-bargaining.
Valetta (1989)	Municipal unions' effect on employment levels	Municipal departments in 700 cities.	1980	Descriptive Statistics. Ordinary Least Squares Regression.	Collective bargaining associated with greater expenditures in departments with collective bargaining agreement.
Zax (1989)	Longitudinal effect of unionization on employment levels.	13,749 departments of city and county	1977-1982	Descriptive Statistics. Ordinary Least Squares Regression.	Higher employment per capita ratio in bargaining units as compared to non-bargaining units.
Schwochau, Feuille, & Delaney (1988)	City government resource allocations to police departments	Police Departments in 449 cities > 25,000 population	1970-1981	Descriptive Statistics. Ordinary Least Squares Regression.	Bargaining cities had greater police department expenditures than non-bargaining cities.
Zax (1988)	Collective bargaining effect on municipal employees' compensation	ICMA survey of 2,778 city departments	1975 1977 1979	Descriptive Statistics. Ordinary Least Squares Regression.	Collective bargaining increases city expenditures as a result of negotiated higher salaries. Spillover effects to non-bargaining units within the same organization.
Freeman (1986)	Impact of unionism on public sector	Composite of various sources and studies.	1970-1985	Comparison and discussion of various empirical studies.	Public sector unions can influence employer behavior through political process. Public sector unions raise fringe benefits more than they raise wages.
Feuille & Delaney (1986)	Collective bargaining and the availability of arbitration	Police salaries in over 900 American cities	1971-1981	Ordinary Least Squares and Generalized Least Squares	Collective bargaining and the availability of arbitration have positive but modest effects on salaries
Feuille, Delaney, & Hendricks (1985a)	Collective bargaining and the level of fringe benefits	Police fringe benefits in over 500 cities with populations > 25,000	1971-1981	Ordinary Least Squares	Collective bargaining and regional location influence the level of police fringes more than any other variables

Schwochau et al did not investigate, however, whether cities shifted funds away from capital expenditures to pay for the higher salaries associated with collective bargaining or whether the bargaining units attained resources at the expense of non-bargaining units. Nor did their research examine whether the specific categories of operating expenses and capital outlays increased more in bargaining units than in non-bargaining units. The present study seeks to fill at least one of these information gaps by investigating whether or not public sector labor organizations influence operating budget decisions, including day to day operating expenditures and capital outlays.

Finding support for the previous studies, Zax (1988: 301) found that not only does collective bargaining result in increased expenditures as a result of higher salaries in the bargaining unit, but that positive spillover effects were observed in nonbargaining units of the same organization. Zax based his study on a large pool sample of police, fire, sanitation, and other noneducation-related departments from International City Management Association compensation surveys taken in 1975, 1977, and 1979. Included in the surveys were over 1,500 police observations, the largest of the four groups. Zax discovered that employees in unorganized (nonunion) departments in "bargaining cities," that is cities that bargain with at least one of the departments, experienced higher wages and benefits than their counterparts in nonbargaining cities (1988: 302). The same study concluded that powerful unions can induce municipalities to either divert allocations away from other expenditure categories or to increase municipal budgets.

Other studies find slightly different intramunicipal expenditure effects of unionization (Valetta, 1989; Freeman & Valletta, 1988; Ichniowski & Zax, 1988). Valletta (1989: 439) did not find that unions increased overall expenditures, but he did determine that collective bargaining

contracts were associated with greater expenditures in the departments covered by a contract. Moreover, Valletta's study indicated that revenues did not increase significantly through either increased taxes or other sources as a result of unionization. Valletta concluded that while unions shift demand to their own departments, they do not affect the level of total municipal expenditures (1988: 440). These findings were consistent with the cross departmental effects uncovered by Freeman and Valletta (1988) and Ichniowski and Zax (1988), in which both studies found that union contracts increased wages but reduced employment in other departments in the same city.

However, Valletta (1989: 433) also noted that smaller cities tended not to be unionized and tended to have greater revenues per capita and greater expenditures per capita. This situation may have skewed the findings regarding the effects of unionization on total expenditures for municipalities. This situation exists because the smaller cities, with no unions but yet larger expenditures per capita, present a false representative image in regression analyses that would suggest that the lack of unions inflates expenditures.

While the issue of union-increased municipal total budgets appears to be unresolved, there does seem to be evidence from more than one study that unions have a tendency to increase expenditures in unionized municipal departments. These studies all utilized appropriate control variables in their research, and such factors as income, other unions, etc. were included in regressions. However, most of these studies focused upon personal services expenses and/or total departmental expenses while not addressing operating expenses and capital outlays. This study attempts to increase understanding of the impact, if any, that unionization has on operating expenses and capital outlays.

Police supplemental pay also seems to be influenced by the presence of unions. Zhao and Lovrich (1997) examined data from the Law Enforcement Management and Administrative Statistics Report (LEMAS) which resulted from a survey conducted by the United States Bureau of Justice Statistics in 1990. The comprehensive LEMAS survey contains a vast amount of information about 2,945 law enforcement agencies throughout the United States (Zhao & Lovrich, 1997: 511). Critical to the Zhao and Lovrich study, LEMAS recorded the self-reported information of whether or not the agency was unionized, and also whether or not one or more types of supplemental pay existed in the agency. Supplemental pay includes hazardous duty pay, differential shift pay, education incentive pay, and merit pay. Zhao and Lovrich concentrated on the 727 agencies responding to the LEMAS survey which had over 100 sworn officers (1997: 511). Zhao and Lovrich (1997: 516) found that "the existence of a collective bargaining mechanism in large police agencies is significantly correlated with the presence of supplemental pay benefits which are favorable to officers."

The increases in police expenditures are not restricted to wages. A ten-year longitudinal study by Feuille, Delaney, & Henricks demonstrated that collective bargaining, more than any other factor, influences the level of police fringe benefits in a municipality (1985: 15-17). The researchers used the definition of "fringe benefits" provided by the International City Management Association (ICMA) which defines these benefits as "city contributions to all retirement systems and to health, hospital, disability, and life insurance" (Feuille, Delaney, & Henricks (1985: 2). After controlling for a number of other influencing factors in their research (such as crime rate, population, per capita income, value of housing, etc.), Feuille, Delaney, and Henricks concluded that collective bargaining significantly resulted in larger fringe benefits for police employees (1985: 8).

In addition to increasing overall departmental expenditures by increasing wages and benefits, public sector unions, according to one study (Zax, 1989: 30), may actually increase public sector employment levels. The study by Zax, which examined longitudinal effects of unionization on more than 13,000 public sector departments (including police departments) in over 5,000 city and county governments over a five year period, identified a 3.1% higher employment per capita ratio in bargaining units compared to nonunion units (1989: 21). Zax (1989:28) suggests that the greater employment rate in the unionized public sector contrasts sharply with comparable situation in the private sector, in which non-union employment has enjoyed a steady increase over unionized employment.

Zax (1989: 23) attributes this difference to the possibility of public sector union-induced increases in demand. This is largely made possible, Zax (1989:30) believes, by the fact that public sector unions enjoy dual roles in their individual association with the employing agency. As employee representatives, they engage in traditional collective bargaining. In addition, unions act as special interest constituency groups operating in the political environment.

Union Politicizing and Politics

The Exit-Voice phenomenon discovers a different dimension and venue in the public sector. Government employee unions not only receive voice privileges in dealing with their employers at the negotiating table, they also experience the opportunity to exert voice at the policy making level with elected officials. Freeman (1986) identified this opportunity as the fundamental difference between public and private sector bargaining. Specifically, Freeman argued "that public sector unions, more so than private sector unions, can influence the employer behavior through the political process" (Freeman, 1986: 42). Employee voice, strengthened by

unionization, seeks to be effective as well as existent. The union enhances employee voice effectiveness by expanding the reach of voice beyond the workplace. The forum most receptive in many ways to employee voice is that of the political realm.

Carter and Sapp (1992: 18) noted that police labor organizations have been able to further their agenda by lobbying state legislatures. The Police Benevolent Association and the Fraternal Order of Police lobbied the Florida legislature for a decade to secure "disability presumption benefits" for law enforcement officers. Florida firefighters have enjoyed such benefits since 1972. Legislation eventually was passed by the state legislature which accorded this benefit to police officers. As a result, Florida cities, counties, and other local governments are required to provide benefits to local government law enforcement officers of Florida who suffer from such illnesses as heart attacks, hypertension, and tuberculosis. Under the legislation, the covered illnesses are presumed to be job-related despite family medical history or lifestyles (Finotti, 2003: 52). The effect of union encouraged legislation on local government budgets can be illustrated by the impact of the legislation on the budget of Green Cove Springs, FL. Green Cove Springs, with an 18 person police force, is a small community with a population of 5,500 on the banks of the St. Johns River in northeastern Florida. After the legislation took effect on July 1, 2002, workers' compensation premiums in Green Cove Springs increased by 50% per year to $180,000 (Finotti, 2003: 53). Section 440.02(17) of the Florida Statutes requires state or local governments to carry workers' compensation coverage. Through several options, the local government must either self-insure or secure insurance for workers' compensation claims filed by their employees, which in turn requires payment of insurance premiums by the local government.[21]

[21] The Florida League of Cities has filed suit to have the disability presumption benefit legislation removed from state statutes.

Babcock, Engberg, and Glazer (1997) explored the political advantages of public sector unions. They emphasize that a public sector union that increases its size can increase public support for a higher wage. Babcock, Engberg, and Glazer substantiate their argument through qualitative research as well as modeling. They point out that public sector employees vote at a greater rate than other workers, and that higher-than-average turnout rate provides greater influence over political conditions within government. Moreover, public sector employees' relatives, friends, and acquaintances vote, and thus extend public sector union political influence. Chandler and Gely (1995: 295) concluded in their study of police and firefighting employees in 614 American cities that "electoral political activities appear to be important determinants of protective services wages and employment." This evidence provides further support that unionization impacts local government police expenditures. Exit voice appears to have become pronouncedly politicized in the functioning of public sector unions labor relations. Freeman (1986) claims that public sector unions have the potential to actually shift demand for labor outward through the political process, which can strain local government budgets. Not only are salaries and employment levels affected by unionization, but benefits are dramatically increased as well. Freeman (1986:59) references 11 major studies of public sector unions in the 1970s and 1980s, and notes that in all cases except hospital workers, public sector unions raise fringe benefits by considerably more than they raise wages. These gains may have been the result of political influences since benefits are usually determined by legislative bodies.

O'Brien (1996: 99) found that police union political activity leads to nonwage bargaining gains for police unions. O'Brien concluded that unlike with private sector negotiations, public sector bargaining demonstrates evidence of an inherently political nature. Gely & Chandler (1993a) utilized a national sample of 614 U.S. cities with populations of 25,000 or greater. The

study analyzed union political activity over a three year period. The findings of the study were consistent with that of Valletta (1989) and Benecki (1978) and determined that: the presence of a collective bargaining agreement between a protective services union and a municipality positively affects protective service department expenditures; and the positive effects are the result of union political power rather than union multilateral collective bargaining power. Gely and Chandler compared police expenditures in association with police union participation in three separate political activities: endorsing candidates for political office; providing manpower or in-kind contributions to candidates for public office; and/or financial campaign contributions to candidates for public office. This comparison found that in cities where the police union engaged in all three political activities, department expenditures were 19.3 percent higher than in similar nonunion cities (Gely & Chandler, 1993a: 301). This suggests that the more intense the union activity, the greater impact unionization exerts upon local government budgets. One study (O'Brien, 1994: 322) corroborated this conclusion by finding that increased union political activity by police or fire unions resulted in greater municipal expenditures.

The degree of union activity within a local government may depend strongly upon the type of legislation existing within the state of the local government. As Carter and Sapp (1992: 18) have pointed out, the types of legislation within the state and local government are susceptible to lobbying by police labor organizations. Ichniowski, Freeman, & Lauer (1989) compared public sector compensation levels with state bargaining laws in a sample of over 800 police departments in the United States. They found that public-sector bargaining laws had significant effects on the compensation of both union and non-union employees (Ichniowski, Freeman, & Lauer, 1989: 205). The more compulsory state guidelines with respect to collective bargaining, arbitration, etc. resulted in higher compensation, and conversely, the less demanding

the labor laws were, the lower compensation levels were on average. State guidelines that mandated bargaining sessions between labor and management resulted in higher compensation packages, whereas incidents of state guidelines that encourage rather than require bargaining resulted in comparably lower compensation packages. The very existence of these guidelines indicates that employee voice, enhanced by unionization, has influenced state legislatures.

The Right-to-Work Issue

The state of Florida is a right-to-work state, that is, there is state legislation which prohibits any agency, organization, or employer requiring membership in a labor organization as a condition of employment. Florida and twenty-one other states, have such legislation (Sloane & Witney, 2004: 333). The topic of such legislation is critical in discussions concerning the extent of union influence. According to Hundley (1988), right-to-work legislation has a substantial impact on union membership. Studying a sample of over 12,000 state and local government workers, Hundley found that union membership was lowest when right-to-work laws were present (1988: 301). Legislation favoring unions such as dues check-off (union dues subtracted from pay checks), and compulsory arbitration provisions increased the probability of union membership (Hundley, 1988: 316-317). Higher union membership or density within an organization allows unions to mobilize greater resources to achieve greater effectiveness (Rose & Chaison, 1996: 78). Unions in Florida, including police unions, experience relatively lower membership rates with subsequent lower resources and funds as a result of existing right-to-work legislation.

Studies conducted in the private sector found that 20 percent of private-sector employees in union shop states were union members, but only 8 percent of private sector employees in

right-to-work states were union members (Davis & Huston, 1995: 223). In another study, Davis and Huston (1993: 58) point out that in the private sector, only 20 percent of the American workforce reside in right-to-work states, yet the marginal impact of right-to work laws remains marginally significant (Davis & Huston, 1993: 52). In the public sector, Ichniowski and Zax (1991: 255) found that right-to-work laws substantially impact union membership. Union security policies such as union shops increase union influence by providing a higher source of revenue and a larger membership base (Kearney, 2001: 73). Since right-to-work laws affect not only union revenue and also union membership, the effect of right-to-work legislation may impair union functioning as an effective voice for their constituency.

A U.S. Supreme Court decision in *Retail Clerks International Association v. Schermerhorn*, upheld Florida's right to work law which also prohibits "agency" shops in which union membership is optional but compulsory union dues are deducted from nonmembers' pay to share the costs of collective bargaining (Carrell & Heavrin, 2004: 146). Right-to-work laws usually predominate in federal government and local government employment.[22] As a result, union density under right to work conditions in the public sector can fluctuate greatly. According to the literature, dissatisfaction with one or more conditions in the workplace contributes to unionization. Rather than exit employment environs, employees exercises voice by unionizing when such an option is available. When a third option is available, as it is in right-to-work states, the employee not only has the opportunity to exit or participate in voice through unionization, the employee may now also procrastinate on the decision of whether or not to exit or join the union, thus saving union dues and still be employed. Unionization under right-to-work conditions could then be considered to serve as a proxy for the relative strength of the voice mechanism in the exit-voice paradigm. The more members belong to the union in a right-to-work bargaining unit,

[22] In Florida, Article I, Section 6 of the state Constitution grants right to work provisions to employees.

the more likely that management will consider union voice to be credible and representative of the workforce.

States with right-to-work legislation not only experience comparatively lower union membership, but also lower union growth (Katz & Kochan, 2000: 124). Research indicates that right-to-work laws reduce union membership by 5 to 8 percent (Moore, 1998: 463). In the public sector, with higher relative rates of unionization, the effects may be more dramatic. Ichniowski and Zax (1991: 273) estimated that revocation of right-to-work laws would increase bargaining unions by 111% among police departments, 78% among fire departments, and 287% among public welfare departments. Right-to-work legislation thus tends to affect not only union membership, but also the overall extent of unionization in the public sector. As a result, right-to-work legislation reduces the resources available to the union by decreasing the number of dues paying union members, and further limits the number of public sector unions that would require local governments to engage in collective bargaining. This has clear implications for Florida police unions. Right to work legislation, by decreasing membership levels, reduces available resources to the police unions as a result of relatively fewer dues paying union members. The effects of right-to-work legislation on union voice in the case of police employees may be a factor in the overall impact unionization has on public sector expenditures.

Collective Bargaining v. Budget Schedules

Collective bargaining not only adds pressures by requiring additional resources, but it also complicates budgeting decisions because budget and bargaining schedules often do not coincide (Kearney, 2001: 142). Quite often collective bargaining agreements are not finalized until near the end of the complex budget creating process. Kearney (2001: 142) notes that the

schedule conflict between collective bargaining and finalizing the budget continues to be a longstanding problem for both state and local governments. Budgeting timetables are, out of necessity, strict deadlines that must be observed while collective bargaining timetables are more fluid. The date for the legislature to vote on the budget is usually set by ordinance or law, while missed negotiations deadlines in most public sector environs do not seriously affect operations (Coleman, 1990: 106).

Several attempts have been instigated by state and local governments to resolve the problem. For example, state legislation in Massachusetts and New Hampshire specifies that collective bargaining must commence a certain period of time before the budget process, while a number of bargaining jurisdictions declare an automatic impasse if the collective bargaining agreement has not been completed by a certain date (Kearney, 2001: 142). Rhode Island requires bargaining agents to serve written request for collective bargaining "at least one hundred twenty (120) days before the last day on which money can be appropriated by the city or town to cover the contract period which is the subject of the collective bargaining procedure."[23] Other local governments specify that the bargaining process must begin as early as nine months before the beginning of the new fiscal year, and the Iowa Public Employee Relations Act sets a March 15 deadline for completion of negotiations (Aronson & Schwartz, 1996: 425-426).

However, many of these efforts have not been successful at the local level (Kearney, 1994). Scholars (Kearney, 2001: 142) have reported that collective bargaining agreements in many of the municipal unions studied were settled after the budget had been finalized by the local government. One of the contributing factors to the situation is the ratification process of the collective bargaining agreement in most jurisdictions. First, the membership of the public sector bargaining unit must ratify the contract. Then, in most cases, the legislative body of the

[23] Rhode Island General Laws, Title 28, Labor and Labor Relations, @ 28-9, 1-13 (1992).

jurisdiction must approve the collective bargaining agreement either directly or through the appropriation process. While the legislative body can vote directly for the provisions of the labor agreement, usually, the executive branch submits a budget (which includes the collective bargaining provisions) for approval to the legislative branch. If the legislative body does not appropriate enough funds to finance the budget (which includes terms of the collective bargaining agreement), the agreement is thus effectively not approved. Despite the fact that the chief executive and the police union may reach agreement in collective bargaining, if the agreement requires an increase in budget appropriations to the police department, and the legislature refuses to approve the appropriations, the collective bargaining agreement can not be implemented because the required funding is nonexistent. As discussed previously in this study, Section 447.309 of the Florida Statutes mandates that all collective bargaining agreements for state and local government employees must be approved by both the bargaining unit employees and the public employer legislature (Florida Statutes, 2004a). Continuation of bargaining sessions beyond the final budget date may result in shifting allocations, enacting supplementary appropriations, or implementing new revenue measures to finance the late settlements (Kearney, 2001: 143).

Local Government Financial Planning and Reporting in Florida

The union exerts influence in the mechanics and dynamics of local government financial operations through the agreement in negotiates with the local government. In this section, the budgetary processes are examined, and the financial structures of local government in Florida are discussed. A better understanding of these elements will provide the necessary tools to analyze the extent to which union influence occurs in local government operations.

Local Government Budgetary Processes

The operating or annual budget requires different planning procedures than do large capital assets such as land, buildings, roadways, and other acquisitions that governments consider nonrecurring needs. Not all capital expenditures are included in the capital budget. Fixed assets that recur frequently may be included in the annual or operating budget process, and the criteria for capital budgets may vary according to the size of government (Vogt, 2004: 5). As recurring expenditures, furniture, electronic equipment, machinery, and even vehicles can be purchased through the capital outlay expenditures category of the operating budget. Other, more major capital items (land, buildings, bridges, roadways) represent major investments for local governments, and as such require the deliberation, analysis, and consideration of alternatives that time usually does not permit with operating budget planning. Capital budgeting requires a separate legislative approval process that includes consideration not only of the amount to be financed, but the manner in which the project will be financed. Local governments may borrow funds to finance capital asset acquisitions, but balance budget mandates require that operating budgets be funded through current financial resources (Gianakis & McCue, 1999: 123). Although part of the capital improvement strategy planning may include payments from operating revenues to satisfy a major capital asset debt, the legal requirement that local government budgets be balanced is the major force in the process of budget preparation (Riley & Colby, 1991: 26-27).

Most local governments track capital expenditures separately from the operating budget in financial management (Forrester, 1993: 92; Coleman, 1990: 105). The actual planning processes involved, as well as the legislative approval processes are separate procedures for both types of budgeting. One scholar (Forrester, 1993: 88) explained that while operational budgeting

is budgeting in its strictest sense, "capital budgeting is asserted to be primarily planning but with a budgeting bent." Beckett-Camarata (1993: 35) elaborated this theme further by concluding that strategic planning should be linked with capital budgeting in order to positively impact financial performance of the local government. Local governments issue predominantly long-term debt to finance capital projects and acquisitions (Vogt, 2004: 247). The operating or annual budget, in accordance with balanced budget requirements, must be financed through current revenues alone. As a result, the collective bargaining process should affect a more perceptible influence on the operating budget processes.

The operating budget demonstrates a more dramatic effect because personnel services expenditures which include wages and benefits, are included in the operating budget, and are the largest single cost category of the operating budget for most local governments (Klingner, 1993: 70). As discussed by Coulson (1993: 119-120), police unions, like most labor organizations, are primarily concerned with salaries and working conditions. Working conditions, as well as salaries and benefits, usually are financed by a portion of the operating budget and are not classified as personal services expenditures. Since labor negotiations include discussions of working conditions, it is expected that unions affect operating expenditures and capital outlays as well as personal services expenditures. Thus far, most studies have focused upon the effects on personal services expenses (salaries and benefits) or the subsequent effects on total police expenditures, since salaries and benefits are included in total police expenditures. Little or no research has been conducted on the other two components of the operating budget, operating expenditures and capital outlays. Unionization through the collective bargaining process has been demonstrated to impact personal services expenditures and, as a result, total police department expenditures. It would then seem reasonable to suspect that since working conditions

involve operating expenditures and capital outlays, and since working conditions are included in collective bargaining discussions, that unionization also impacts operating expenditures and capital outlays. This study seeks to bridge the gap in research and identify the extent to which union presence affects operating expenditures and capital outlays.

Financial reporting differentiates between the category of capital outlays and that of capital projects. Capital outlays consist of expenses for items that have a useful life of more than one year, including equipment, furniture, and possibly vehicles. Capital assets in this category can be budgeted as current expenditures in the general fund (Aronson & Schwartz, 1996: 134). On the other hand, capital projects consist of finances specifically appropriated by the legislative body to a designated fund through the capital budgeting process. Capital outlays usually require a capital equipment request to a central budget office. For an example, during collective bargaining it may be agreed to replace a mechanical time clock with an electronic time badge reader. The new time tracking system, which requires a computer and sophisticated electronic equipment, constitutes a capital asset. However, rather than seek funding through the capital budgeting process, the department would submit an equipment request and receive approval for capital outlay funds to purchase the equipment. The needs for the capital equipment are more immediate in the foregoing example than the capital budget process would allow, and therefore the capital outlay would be issued from the operating budget.

Capital improvement projects such as land purchases, building construction, and major infrastructure improvements would be the least likely to exhibit signs of union influence because of the nature of capital budgeting. Local governments usually issue long term debt to finance capital projects (Vogt, 2004: 247). Since this debt can extend over 20 or more years, depending on the useful life of the asset, the impact of collective bargaining would be mitigated by the

aggregation of many other factors and considerations that compel local governments to launch capital projects. Other factors in the capital budgeting process, such as the local government's financial condition, would create a lag in union influence that would be difficult to identify and measure with existing financial records. For example, a certified bargaining unit may exert a great deal of influence in the decision to build a new facility, but the financial condition of the government may postpone, amend, or cancel construction plans until a later date at which time the union may have experienced decertification, or have engaged in concessionary bargaining to assist in financing the project.[24]

However, capital outlays funded by the operating or annual budget are not part of the capital budget process. Large, expensive pieces of machinery such as vehicles in the cases of larger communities, and such items as computers or riding mowers in the case of practically all communities would fall into this category. The distinguishing characteristic of non-capital budget capital outlays is the method of financing the purchase of the capital assets. Capital budget assets are funded through capital projects funds and usually require outside, commercial financing. Non-capital budget capital assets are purchased directly through the operating or annual budget without outside commercial financing.

Vehicle replacement policies in local government present a variety of methods to maintain a sufficient supply of operational patrol vehicles. A small locality, for example, might include vehicles as part of a capital budget, but a large city may purchase patrol cars as part of a regular operating budget (Aronson & Schwartz, 1996: 433). One city in Florida uses a 2 year

[24] Concessionary bargaining in this sense refers to the union agreeing to give up the rights of a higher wage or more expensive benefit in order to accommodate the employer's constrained budget. This is sometimes done by unions to avoid reductions in force.

police vehicle replacement policy and funds these purchases through the operating budget.[25] In another city, a bureau commander in charge of technical services consults with the police chief to fashion a replacement request, usually when the vehicles reach four years of age. The Police Chief in this city has preliminary discussions with the City Manager before submitting the vehicle replacement request to the city commission, who ultimately are responsible for approving the replacement requests.

A large city in Florida has a variation of a six year police vehicle replacement policy and usually funds the purchases through the operating budget, but occasionally will fund larger numbers of vehicle replacements through the capital budgeting process.[26] This city, like many municipalities throughout the country, relies on a combination of factors within computerized analyses for determining police vehicle replacement. The factors are: age with life expectancy considerations; the cost of repairs each vehicle incurs in its lifetime up to a specified point in time; and mileage, or the number of vehicle miles registered by the vehicle odometer. The factors are embedded in a software program, named FASTER by its creators, that examines replacement status for each vehicle.[27]

In Florida, the state government negotiates contracts with vehicle suppliers through which Florida local government law enforcement agencies may order replacement vehicles in what is known as a "piggy-back" arrangement. Many counties and municipalities with law enforcement agencies utilize this arrangement to purchase vehicles. Other smaller agencies that lack the financial wherewithal usually purchase used vehicles from the larger municipalities.[28]

---

[25] Since some of the cities discussed are represented in Chapter V and were provided anonymity, neither the names of the officials nor the city will be divulged. Information was provided by the Financial Services Manager from City One discussed in Chapter V

[26] An official (budget manager) from City Seven in Chapter V provided this information.

[27] Information provided by a fleet services official in City Seven from Chapter V.

[28] Information supplied by the Financial Services Director in City One from Chapter V.

The process of deciding the vehicle replacement policy and determining which capital assets to purchase usually follows the budgetary decision process of the annual or operating budget, and often is dependent on the availability of funds. As discussed previously, however a municipality may develop a replacement policy before the budgetary decision process commences in accordance with other factors, such as contingent resale policies or priorities unique to the local government.

Typically, the executive branch of the government (governor, county executive or mayor) initializes the budgetary process by preparing a budget for submission to the legislature for approval. The operating budget process, depending on size of the local government, the type of budgeting formats, and the level of procedural formalities, begins with a "Budget Call Memo" or a similar memo that provides overall guidance to agency or department heads in submitting estimates for operational funding for an upcoming fiscal year (Aronson & Schwartz, 1996: 154-155). In the budget call, the chief administrator or executive of the local government may issue a policy statement which includes the expected fiscal and operational conditions of the new year, and a policy which establishes a strategy of either expansion or retrenchment (Aronson & Schwartz, 1996: 155). In response to the budget call, the budget unit (agency/department) prepares estimates of required funding for the subject fiscal year. While there are a number of variations in the process, budget estimate procedures are often categorized as "bottom-up" or "top-down" approaches (Gianakis & McCue, 1999: 24). The "bottom-up" approach is also called "open-ended" and entails the budget unit submitting estimates to finance operations in the upcoming fiscal year. The "open-ended" label refers to the fact that the budget unit is submitting an estimate without deference to a fixed ceiling dollar amount, but rather focuses on service levels instead. In the "top-down" approach, higher level managers establish a fixed ceiling for

the budget unit's estimates (Aronson & Schwartz, 1996: 155). The bottom-up, or open-ended method accommodates union influence immediately by including changes in the budget estimates created by collective bargaining. However, the top-down approach may result in adjustments to budget estimates, especially in cases where higher level managers have established the fixed ceiling before labor negotiations have been concluded and approved by the legislative body.

In the absence of unions, budget considerations such as employee compensation remain almost unilaterally determined by the legislative body and public sector management (Kearney, 2001: 141). This situation becomes more complex with the presence of unionization. Once public sector employees organize, the bargaining and budgeting processes become interactive (Coleman, 1990: 106). This interaction usually becomes especially noticeable anywhere after the budget call in the preparation stage of the budget process or prior to the final approval by the legislative body. As a budget unit, a police department prepares its estimates and submits these estimates to the central budget office or to an authority designated by the chief executive officer for review (Aronson & Schwartz, 1996: 155). Changes in financial requirements wrought by collective bargaining and other union influences are factored into the estimates whenever the collective bargaining agreement is finalized. If provisions of the agreement are available at the time that budget estimates are being calculated, changes in wages and benefits or other changes may be included in the budget unit's estimates before being reviewed by the budget staff. However, if contract provisions are not finalized before the budget unit submits the estimate to the budget office staff, the budget unit must anticipate a late settlement and submit an even more speculative estimate to the budget office, or the budget office or chief executive designee will be required to amend the estimates when settlement is reached before submitting the budget to the

legislative body (Kearney, 2001: 142-143). In this respect, the operating budgetary process generally has more of a sense of urgency than does capital budgeting.

In addition to increases in wages and benefits, other considerations that may be spawned by the bargaining process, such as increased law enforcement training, additional equipment, newer technologies and so forth are likely to increase departmental budget estimates by a perceptible amount as they are included in budget estimates for the upcoming fiscal year. The change in unionized departments' budget estimates will be significant when compared with non-unionized departments' estimates in regression analysis. Financial data from local governments provides this evidence.

Structures

Most of the studies mentioned in the literature review featured total police expenditures, wages, and/or benefits but did not examine operating expenses or capital outlays. The referenced studies relied upon financial data to measure the impact of unions on local governments. This data was primarily personal services expenditures such as salaries, and monetary benefits experienced by law enforcement members. The present study utilizes the same approach to detect the extent to which police unions influence local governments. However, this study diverges from the studies referenced in the literature by focusing on the component object classes of police expenditures. The following discussion of the various funds, accounts, and financial elements relative to this study will explain the theories, considerations, and standards necessary to understanding the research strategy and results of this study.

Financial reporting procedures in many local governments are often specified by state legislation in a very detailed manner. The Government Accounting Standards Board (GASB)

promulgates generally accepted accounting principles (GAAP) that provide the authoritative guide to recording governmental budgeting practices and financial operations (Aaronson & Schwartz, 1996: 125; Freeman & Shoulders, 1999: 32-33). The GASB is responsible for establishing accounting procedures for state and local governments in the United States (Freeman & Shoulders, 1999: 14). Guided by the generally accepted accounting procedures from the GASB, Florida's Department of Banking and Finance developed the Uniform Accounting System Chart of Accounts which specifies the standards for recording and reporting financial information by local governments to the State of Florida (Florida Department of Financial Services, 2000). Section 218.32, Florida Statutes, requires local governments to submit annual reports to the state, and Section 218.33 requires local governments to use the Uniform Accounting System Chart of Accounts as an integral part of their accounting system to ensure consistent reporting procedures among all local governments in Florida.

Fund Accounting

The Florida Local Government PDF Reports, which this study uses as data sources, post local government finances in a manner consistent with the Uniform Accounting System Chart of Accounts. The Florida Department of Financial Services maintains an electronic copy online of the Uniform Accounting System Manual which defines and classifies the types of funds or sources from which funding for activities originate (Florida Department of Financial Services, 2000). Fund accounting is probably the most distinctive feature of governmental accounting and is very different from the private sector business accounting (Freeman & Shoulders, 1999: 34; Gianakis & McCue, 1999: 40). The diverse operations of government and the necessity for legal compliance preclude recording all governmental financial transactions in a single accounting

entity (Freeman & Shoulders, 1999: 34). Segregating government resources into funds facilitates government compliance with legal restrictions placed on the use of specific resources by the legislative body (Gianakis & McCue, 1999: 40; Aaronson & Schwartz, 1996: 126). Fund accounting thus provides greater monitoring and control over government revenues and expenditures.

As specified by the Governmental Accounting Standards Board (1997: Section 1100.102), fund accounting and funds are defined thus:

> "Governmental accounting systems should be organized and operated on a fund basis. A fund is defined as a fiscal accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances, and changes therein, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations."

Funds are usually grouped into three separate categories: governmental; proprietary; and fiduciary. Governmental funds include the general fund, special revenue funds, capital projects funds, and debt service funds. The general fund is the primary operating fund of local government, and is considered by some to be the principle reporting entity for every local government (Gianakis & McCue, 1999: 40). The general fund consists of unrestricted monies intended to finance day to day government operations during the annual budget cycle. Many services usually associated with local government (e.g. police, fire, parks and recreation and so forth) are financed through the general fund, usually the largest and most active fund of local governments (excluding large government enterprises). All monies not identified by other funds are channeled through the general fund. Freeman and Shoulders (1999: 573) claim that "the financial health of the General Fund often largely determines the financial health of the unit as a whole." To support their claim, the authors cite the example of Standard and Poor's lowering the

state of Illinois' bond rating in 1992 based on the weak financial condition of the state's General Fund.

All other funds are legally restricted monies intended for specific purposes, rather than for the day to day operations of a local government. This includes the remaining funds in the governmental funds category. Special revenue funds provide resources for designated activities. Examples of special revenue funds include: monies from gas taxes which are earmarked specifically for highways; user fees for recreation facilities that in turn help finance those facilities; and so forth. Restricting the revenues within a specific activity area ensures continued financing of such activities, hence the separate funds category. Another governmental fund is the capital projects fund, which accounts for monies designated for the purchase of land, or the acquisition of buildings, infrastructures, and other long term assets. Legal segregation of such funds ensures the financial coordination of major construction projects over the years (Gianakis & McCue, 1999: 41). The final component of governmental funds is the debt service fund which is used to account for monies used to pay off principal and interest on a local government's long term debt, especially general obligation debt such as municipal bonds.

Proprietary funds keep track of local government's business like operations (Aaronson & Schwartz, 1999: 127). One type in this category, enterprise funds, account for such operations as convention centers, sewer and water utilities, electric utilities, transportation systems, etc. Independent accounting of such funds increase efficiency and provide a greater measure of control over operations of the enterprise. Similarly, the other type of proprietary funds, internal service funds, enhances accountability within government by separately recording services provided by one type of governmental department to another. Examples of such funds are data processing, purchasing, government printing, etc. The design of proprietary funds is such that the

participating entities are self-sustaining and do not require annual budget appropriations on the part of the legislative body to perpetuate operations. Moreover, the lack of appropriations requirements allows the budgets of these commercial and quasi-commercial entities to be much more flexible to meet the demands of its citizen-customers.

The final category of funds, fiduciary funds, are used to account for assets held by a government in a trustee capacity for such parties as but not limited to: employees, another government, resident individuals such as inmates in a correctional facility, and other special purposes such as scholarship programs. GASB recognizes one encompassing type of fund in this category, trust and agency funds (Freeman & Shoulders, 1999: 39). Agency funds account for monies held by the local government for other governments. Pension trust funds, the largest local government trust fund (Aaronson & Schwartz, 1999: 131) contain pension contributions and the accrued interest on these investments. While the State of Florida complies with the GASB fund classifications, pension trust funds are tracked separately on the Florida Local Government PDF Reports (Florida Department of Financial Services, 2004).

The funds most susceptible to law enforcement union influence would be the general fund since this fund finances the day to day operations of police department services. Agreements crafted by collective bargaining might eventually impact other funds as well, but usually not with the same degree of effect. An exception to this observation would be the so called disability presumption benefits discussed earlier in the *Union Politicizing and Politics* section of this literature review. However, legislation of this magnitude surfaces rarely in comparison to such matters as wages, benefits, equipment, and working conditions which are discussed frequently in bargaining sessions. The general fund finances most of these functional areas (personal services), which consume more than 70 percent of the local government's

operating budget (Klingner, 1993: 70). Other funds (such as special revenue) contribute to satisfy the overall expenses of the police department, but to a much lesser extent. As discussed previously, this situation exists as a result of balanced budget requirements for all governments but the federal government.

Organization Units and Object Classes

In order to further enhance responsible governmental accounting procedures, GASB specifies using organization units and object classes. GASB defines an organization unit as a classification corresponding with the governmental organization structure and "charged with carrying out one or several activities or programs" (Governmental Accounting Standards Board, 1997: Section 1800.118). Police departments, fire departments, parks and recreation departments, and similar entities each usually comprise an organization unit for governmental accounting purposes so that funds are relegated to each unit separately in accordance with its specific governmental activity. Each organization unit is individually identified by name, designated number or both in Florida governmental financial reports (Florida Department of Financial Services, 2004). GASB intended the establishment of organization units in governmental accounting to facilitate evaluation of the economy and efficiency of operations (Governmental Accounting Standards Board, 1997: Section 1800.119).

Object class (object-of-expenditure) refers to the type of article or service obtained (Freeman & Shoulders, 1999: 245). The Florida Department of Banking and Finance utilize six categories of object classification: Personal Services (coded 10-29); Operating Expenses (coded 30-59); Capital Outlay (coded 60-69); Debt Service (coded 70-79); Grants and Aids (coded 80-89); and Other Uses (coded 90-99) (Florida Department of Financial Services, 2000). Each

category includes separate identifying codes for the component elements of that category. Personal Services, for instance, includes such items as: salaries (11-13); overtime (14); FICA Taxes (21); Life and Health Insurance (23); and other related personal services expenses. The Florida Local Government PDF Reports present the expenditures according to the six major categories of object classification.

The object class of capital outlays presents some confusion among governmental reporting units since it covers items subject to the operating budget such as computers and sometimes vehicles, and also subject to the capital budget which includes purchase of land, buildings, roads, bridges, etc. Currently, the range for determining the lower bounds of capital expenditure values for most cities and counties is approximately $500 to $10,000 (Vogt, 2004: 4). Smaller entities usually use significant values at the lower end, while larger governments will use significant values at the higher end of the range. However, not all capital expenditures are included in the capital budget. Capital expenditures that fund frequently recurring fixed assets are included in the operating or annual budget. It is generally understood that even in large cities, the operating budget should separate regular operating expenses from recurring expenditures for small capital items (Aaronson & Schwartz, 1999: 433). The Florida Department of Banking and Finance enable local governments to record these items separately by specifying that capital outlays from the general fund are recorded in a different category than either personal services expenses or operating expenses (Florida Department of Financial Services, 2000: Chapter 5, p. 1-6). The complex and comprehensive object classification system utilized by the Florida Department of Banking and Finance facilitates uniform financial reporting by minimizing discretionary entries.

The delineation of expenditures by organization unit reveals the funds utilized by police departments in the state of Florida. The separation of accounts by fund specification yields the nature of strategizing and budgeting by the local government in terms of planning horizons. Finally, the object class of expenditures cross-referenced with the forgoing fund and unit groupings matched with other variables will provide evidence of whether or not union presence in the organization unit influences police department expenditures. The format used by the Florida Department of Financial Services allows discretionary data selection by segregating the different fund types and by separating the expenditure categories. This data, regressed with other information will yield the information required to determine the impact of police unions upon local government expenditures.

Conceptualization

Coalescence of Theory

The phenomenon of exit-voice expands dramatically in the public sector. In the private sector, the presence of exit-voice provides employees with the choices of quitting the job, expressing grievances, and securing better working conditions, pay, and benefits through dialogue with the employer. In union shops, exit-voice upgrades into a unified force when dealing with the employer, but the focus of attention remains primarily on working conditions, pay, benefits, and other areas of interest that benefit the employee directly. In the public sector, however, exit voice becomes much more sophisticated, and actually transmogrifies union influence into a political entity capable of substantial results. Union members are often constituents of the elected officials who assume the roles of policy makers in a local government.

Thus, local government politicians may be even more sensitive to organized union involvement than nationally elected officials.

In all levels of government, the union expresses the unified will of its members and influences policy outcomes. This situation may be more detectable on the local level. Evidence for the added dimension of public sector exit-voice through organized labor organizations can be discerned through comparisons of levels of pay and benefits with non-unionized local government departments. The so called "multilateral" negotiating tactics of unions have been documented by a number of studies discussed previously. However, there is a paucity of research dealing with unions utilizing their influence to determine levels of service in a community through the budget process. Public sector unions may actually affect operating expenditures and capital outlays, which are not always direct benefits for their members, as well as salaries and benefits of their members, which of course are of direct benefit. The "not direct benefits" experienced by public sector employees may actually be the goals created by employee values contained in what Thompson and Bunderson (2003: 574) identified as "ideology-infused contracts." A police officer may interpret the "Protect and Serve" obligation of his or her department to the community as requiring additional squad cars to adequately fulfill the organization's role. The police officer might not directly benefit from the acquisition of additional patrol cars, but the officer could perceive that the community might benefit from the additional equipment.

Public sector employees inevitably become involved in policy agendas that orient their work, which then results in an effort to define the "public interest" (Johnston, 1994: 211). At least one scholar (Sewell, 2002: 18) concluded that the increased education of America's police officers, along with the changing culture of the workforce tend to motivate line personnel to

become involved in decisions regarding their jobs and their organizations. Organized labor provides the formal voice mechanism that enables line personnel to participate in meaningful decision making. Police unions, while representing one group of public sector employees tend to influence the roles these employees play in local communities (Magenau & Hunt, 1989: 547; Magenau & Hunt, 1996: 1315). Carter and Sapp (1992: 18) noted that police labor organizations have become increasingly sophisticated at the state and national levels, especially in providing bargaining strategies and support to local bargaining units.

Public sector unions accomplish these effects within society by consciously exerting their influence within local governments through negotiations with administrators and elected officials of the same local government. In effect, exit-voice, formally represented by the union, acts as a real force operant within the local government. The public sector craft employee thus secures a measure of control not only over his own destiny, but also over that of the larger government of which he is an employee. The accuracy of this presumption can be tested by selecting a representative function of local government, such as police departments, and comparing conditions in unionized versus non-unionized agencies providing identical governmental services. Similar sized communities, some even adjacent to each other, presumably provide the same level of police services but yet experience different functional labor-management relations that are characterized by whether or not the workforce is organized. Therein lies the difference, and this difference is manifested in the level of expenditures. Few, if any studies have researched the possible impact of police unions and even public sector unions in general on the specific budget categories of operating expenses and capital outlays. This study attempts just such an endeavor.

Operationalization

While several employee organizations offer viable opportunities to examine the extent of union influence on local government, police unions present a particularly attractive subject for study: 1) There have been some studies previously conducted related to the effect of police unions on levels of total police expenditures and on police pay and benefits; 2) There appears to be a broad spectrum of union affiliation among police departments than there are in other departments; and 3) Law enforcement agencies often receive a proportionately greater share of attention in a community than other municipal departments. Wilson (1968) noted that police departments are possibly the most visible of government agencies and that no other government agency affects the lives of as many people. As discussed earlier, police departments, because of their proportionately larger budgets, serve as the selected representative local government agencies within which unions formalize exit-voice.

An attempt will be made to measure the effect of unionization on local government in several ways. The effect of unionization upon government size should be measured by determining whether unionization increases local government departmental expenditures. The increase in expenditures should be assessed in all three categories of local government operating budget as well as in total expenditures: 1) Personal services, which include salaries and benefits; 2) Operating expenses, which include the day to day expenditures of operating the department; and 3) Capital outlays, which would include such items as computer systems, squad cars, and other high priced equipment and services not included in the local government's capital improvement program.

Four different aspects of the effect of union density on local government will thus be studied: 1) Level of total expenditures for the agency; 2) Level of personal services expenditures;

3) Level of operating expenses expenditures; and 4) Level of capital outlay expenditures. This situation will necessitate four separate research models, each with a different dependent variable. The variable of interest, or independent variable, in each case would be unionization. Each model will attempt to determine to what extent, if any, union status affects local government spending, and what aspect of local government spending is affected.

Controlled Extraneous Factors

Other extraneous factors should be considered to improve accuracy of the models and prevent biased conclusions. These factors, such as crime rate and financial condition of the community, also affect the level of police staffing and local government spending on law enforcement. Including such factors, or control variables, in the models would enable the study of the effects of union density in the proper perspective and environment. These control variables emanate from a number of dimensions: Demographics; Financial Factors; and Law Enforcement Related Factors.

Demographics affect local government expenditures as a result of their inherent demands for police services. A larger population will require more law enforcement officers, as would the community's proximity to a larger city. In addition, the land area in square miles may make a difference in police spending, especially as residents come in closer daily contact with one and another. Both population and proximity to a metropolitan statistical area of a community offer potential explanations for police departmental expenditures because dense populations may contribute to the crime rate. Several related studies (Feuille & Delaney, 1986; Gely & Chandler, 1993a; Witt, 1990) have utilized population density as a control for community expenditures with varying degrees of significant results. Witt (1990: 171) concluded that population density

was one of the two most influential variables in his model of factors influencing police budget allocation among cities.

Feuille and Delaney (1986: 231) noted that police salaries were higher in urban rather than rural areas, which results in higher police expenditures. Gely and Chandler (1993a: 301-302) found that population significantly correlated to both police and firefighter expenditures and continued to use population as a control variable with significant results in other studies dealing with police union bargaining outcomes as well (Gely & Chandler, 1993b; Gely & Chandler, 1995, Chandler & Gely, 1995). The studies concluded that population is a factor to be considered in explaining the levels of police department expenditures. The population variables had a significant positive effect on police wages, which indicates that as the population of the local government increases, wages also increase. Identifying control variables such as population reduces the possibility of bias in the regression model by accounting for other factors that affect the outcomes. Omitting control variables such as population from the regression would artificially inflate (or deflate) selected variables remaining in the model, thus introducing bias. Mindful of this pitfall, the researcher attempts to (within reason) include variables that would also explain the variations in the levels of department expenditures.

The average education of community residents possibly might influence police expenditures. Informed and educated citizens may be more sensitive to the levels of police service and thus be more willing to support higher police expenditures. Chandler and Gely (1995: 301) used a variable that represented the percentage of the municipal population having at least a high school education as a control in their studies of the price of police and fire public services. The variable produced mixed results in their analysis. The link between education and the level of expenditures is plausible and should be considered.

Communities with a higher median income might experience less crime than lower class neighborhoods, or possibly the higher median income communities could afford and expect a higher level of police services. Income inequality has been found to contribute significantly to increases in crime (Hsieh & Pugh, 1993). Gely and Chandler (1993a) used median value of housing in the community as a control in their study, as did Schwochau, Feuille, and Delaney (1988). Other demographic factors that might affect local government police expenditures would include relative racial proportions of the community's residents Gely & Chandler (1995: 178), and maybe even their age. Witt (1990: 170) accommodated the influence of age in his model by using the percentage of residents 65 years and older as a control variable. The variable emerged consistently significant across Witt's models, which indicated that an increase in the percentage of residents 65 and older had an inverse relation with crime rates. However, Witt also used a percentage change in population as a control, but the variable did not exhibit significance for per capita expenditures (1990: 168). Witt used per cent change in population to measure the effects that growth had on per capita expenditures. The variable measured changes in population over 10 year periods.

Others (Gely & Chandler, 1993a; and Schwochau, Feuille, & Delaney, 1988) included a variety of variables as controls for resident income. Witt (1990) used a variable indicating the percentage of owner-occupied housing, with significant results. The percent of owner occupied housing and population density were the two most important variables influencing the percent of budget for police in Witt's study (Witt, 1990: 171). A variable such as owner occupied housing indicates the relative level of investment residents have in the community. Demographical effects are expected to be substantial on local government police expenditures.

Financial condition would certainly impact the level of expenditures in local government. If debt service is high, or a community has a disproportionately high level of debt, the community may not be able to responsibly fund more police services. Gely and Chandler (1993a: 300) argued that municipal per capita tax revenues significantly affects police and firefighter department expenditures. Multivariate regression of factors influencing police and fire department expenditures demonstrated that controls using proxies for the community's ability to pay (such as per capita tax revenues) remained significant throughout both police and firefighter department expenditure models (Gely & Chandler, 1993a: 302). The actual aggregate taxable value of the community determines how much revenue would be available to a local government to spend on police services. Higher tax bases offer the potential for greater spending than lower tax bases. The prevailing millage rate may make a difference as well. If a community is close to state mandated limits, or the citizens are extremely unreceptive to tax increases, spending levels tend to be lower. One example is the state of Florida which has mandated that no taxing agency within the state may impose a millage rate greater than 10 "mills," or number of dollars per $1,000 of assessed value. Approaches in empirical studies vary considerably to control for the ability of the residents to fund police services.

The final dimension of extraneous influences on police expenditures might be called law enforcement related factors. This dimension includes such variables as the community crime rate. High or increasing crime rates, particularly in areas of sprawl and deteriorating neighborhoods, might agitate citizen demands for increased police services. Such demands, if acted upon by elected officials, would elevate police services spending levels. A community might also prefer a greater level of police services for a variety of reasons. Law enforcement officers might be used in crime prevention education to a greater extent in one community than

in others, or the types of businesses in the community may require additional police protection. Such requirements would increase government spending as a result of additional police staffing and equipment. This factor would be considered a service preference level for the community, and would represent the desired level of police services unique to each community. In many cases, as the crime rate increases, local governments may respond to the increases by hiring more police officers, which in turn drives up expenditures. Again, as with other discussed dimensions, the literature offers examples of other similar empirical studies (Schwochau, Feulle, & Delaney, 1988: and Witt, 1990) that use crime rate, with significant results, as a control variable.

A related consideration may be the relative amount of effort devoted to reducing crime in a community. As pressure increases on local governments to reduce crime, longer hours or additional staffing may be utilized by communities to stem crime rates. There appears to be a paucity of police expenditure literature using crime reduction efforts as a control in determining resource allocation to police departments. Rather than use political rhetoric as a proxy for crime reducing efforts, using the Florida Department of Law Enforcement (and Federal Bureau of Investigation) measurement "percent cases cleared" would be more appropriate since such a measurement represents the active commitment of a community over time to reduce crime rates. Cases cleared percentages could also indicate the ability of local law enforcement personnel to control crime in conditions prevailing in the community. Lower percentages of cases cleared could result in greater expenditures as the community attempts to bring crime under control. However, higher percentages of cases cleared would indicate that local law enforcement has crime under control and resources could thus be redirected to other programs.

Hypotheses

The First Hypothesis: Total Police Expenditures

The research questions posed by this study will be presented in a format more conducive to statistical testing. The individual hypotheses require a separate model for each case, since each hypothesis tests the causal relationships between the separate dependent variables and their respective independent variables. Each hypothesis retains the sequence of the previously discussed research questions.

H_{01}: There is no difference in total police expenditures between communities with police union representation, and those communities without police union representation.

H_{A1}: There are greater levels of total police expenditures in cities with police union representation, compared with those cities without police union representation.

A correlation test using Pearsons' R will initially test the H_{01} hypothesis to determine relative strengths of association between the dependent variable and the independent variable of interest. Subsequent to positive associations being identified, a full multivariate regression model will test the relationship in a broader environment that controls for other intervening factors represented by the extraneous independent variables. It would appear highly unlikely that endogeneity presents a problem with the model constructed for this hypothesis. However, usual precautionary procedures will test for other problems such as multicollinearity, misspecification, and other statistical anomalies. In all probability, the demographic independent variables, in comparison with all other variables, will have a more significant effect on the dependent variables, expenditures and will thus exhibit greater betas. The primary intent of this research is to determine whether or not unionization has significant influence on the dependent variables. It is anticipated in the case of this hypothesis that the presence of unionization in Florida police

departments will result in higher overall expenditures than in offices that have not been unionized.

The Second Hypothesis: Police Personal Services Expenditures

H_{02}: There is no difference in levels of police expenditures for personal services between communities with police union representation and those communities without police union representation.

H_{A2}: There are greater levels of police expenditures for personal services in cities with police union representation compared with those cities without police union representation.

The statistical hypothesis H_{02} will be tested in a manner similar to the preceding H_{01}. Again, Pearsons' R will provide the initial test for association between union density and police personal services expenditures, followed by the appropriate specification of a multivariate regression model that controls for extraneous factors. Since the dependent variable in this case, police personal services expenditures, is a component cost of the overall police expenditures discussed in H_{01}, it is expected that the results should be similar to that of the preceding hypothesis. Police agencies that have been unionized should demonstrate higher expenditures for personal services expenses than police agencies that have not experienced unionization. This model should clearly demonstrate the most apparent effect of exit-voice within a government system since wages and benefits are particular and dominant concerns of union members.

The Third Hypothesis: Police Operating Expenses Expenditures

H_{03}: There is no difference in levels of police operating expenses expenditures between cities with police union representation and those cities without police union representation.

H_{A3}: There are greater levels of police operating expenses expenditures in cities with police union representation and those cities without police union representation.

The statistical hypothesis H_{03} and the subsequent hypotheses diverge from previous studies most dramatically at this point because expenditure categories are segregated to determine the impact of unionization on each of the categories. Previous studies tested for the impact of unionization on overall expenditures or on salaries and benefits alone. This research will also determine whether or not union presence, makes any significant difference on the level of expenditures or the size of government. But perhaps most importantly to this research, test results of this hypothesis might demonstrate the evolution or transformation of the exit-voice phenomenon into policy making areas dealing with subjects not always strictly related to the personal benefit of union members. As always, the statistical procedures used in the preceding models will be repeated in this instance to determine whether or not there is a relationship between unionization and operating expenses expenditures. Again, it is expected that unionized police agencies will exhibit significantly higher expenditures for the operating expense category than would the non-unionized police agencies. Collective bargaining agreements often include provisions for additional officer training and other line items that would require additional funding from the sponsoring local government.

The Fourth Hypothesis: Police Capital Outlays Expenditures

H_{04}: There is no difference in levels of police capital outlay expenditures between cities with police union representation and those cities without police union representation.

H_{A4}: There are greater levels of police capital outlay expenditures in cities with police union representation and those cities without police union representation.

As with hypothesis H_{03}, answers to the statistical hypothesis H_{04} will reveal whether or not unionization impacts policies that are not directly related to union members' personal benefit.

This would also demonstrate an expansion of the traditional bounds for exit-voice. In this instance, capital outlays receive scrutiny to determine if unionization has any effect on that category of expenditures. Unionization may exert influence on such things as the type and quantity of capital equipment purchased by local governments. Standard statistical procedures discussed for the preceding hypotheses will be used with H_{04} as well. Again, union police agencies should exhibit a significant difference in capital outlays of the operating budget than those of non-union police agencies. Collective bargaining agreements often include provisions for improved technology such as computerized systems, and as a result, the additional equipment and supplies would require additional funding from the local government.

Chapter Summary

Public sector unions possess the potential to influence local government decision-making in several ways: through collective bargaining; through day-to-day labor-management relations; and through the political process policy making. Each is an expression of employee voice as formalized by the union. The union serves to amplify employee voice and to strengthen its influence in the work environment. This influence can most expeditiously be determined by appraising associations between union presence and local government spending in a department that hosts a public sector union. The present study, utilizing four different regression models, will attempt to ascertain the extent of public sector union influence on local government budgets. Guided by the foregoing research questions, the study seeks to identify the specific results of public sector union influence on local government expenditures.

CHAPTER THREE: METHODOLOGY

As discussed previously, the purpose of this study is to determine whether or not unionization in police departments impacts departmental expenditures, especially operating expenses and capital outlays. The research hypotheses of this study state that there will be variances in police department expenditures caused by union influence. The study attempts to understand which categories of police department expenditures are affected by unionization, and the extent to which union influence affects these expenditures.

The study design is primarily explanatory research utilizing a dual methods approach which includes both quantitative and qualitative features. The quantitative method employed by the study, using standard statistical packages, assembles and presents the data in a coherent, comprehensible form. These results explain the degree of impact that unionization has upon local government expenditures when all other influences are controlled. However, a researcher might argue that when an objective scientist codes social influences into operational variables, valuable data is lost by imposing sterile restrictions on the subjects (Marshall & Rossman, 1999: 57). The qualitative method, coupled with quantitative research, provides a richer understanding of the topic by including face-to-face interactions with individuals that have first hand experience in the subject area. The complexities and nuances of real-life situations are thus re-examined in the settings in which they occur.

The sections in this chapter will identify the sample, delineate the data, operationalize factors critical to the model, and explain the processes through which the final conclusions developed. Some of the control variables used by the study will undoubtedly demonstrate greater impact than will the independent variables, as indicated by standardized coefficients. However, significant results wrought by the independent variable of concern will yield a better

understanding of which expenditure categories that are sensitive to union influences. Moreover, significant impacts of the variable of concern will be readily isolated and identified by the regression models to determine the degree of influence unions exert on the expenditure categories.

Sample

Data

The cross sectional study will examine all cities in Florida utilizing their own police department. Because of the varying size of Florida municipalities, however, some consideration must be given to the effects of population in our analysis. In the quantitative section of the research, a continuous variable representing population will accommodate such considerations. For the qualitative portion of the research, Florida cities in the study will be categorized as small (Less than 25,000 in population), medium (25,000- 100,000 population), and large municipalities (Greater than 100,000 in population). These categories are partially consistent with the groupings used by the Department of Justice Uniform Crime Reports (UCR). The UCR contains six population groups while this study collapses the groupings into three categories. UCR Groups I and II comprise this study's large city category; UCR Groups III and IV form the study's medium size city category; and Groups V and VI combine in the study's small city category.[29] A total of 284 Florida municipalities with an active police force in 2002 are reported in the Uniform Crime Reports (Federal Bureau of Investigation, 2002: pp 341-343). The Florida Department of Law Enforcement presents statistics for 282 municipalities in 2002 (Florida

[29] The Uniform Crime Report categorizes cities according to population groups: Group I consists of U.S. cities with populations of 250,000 and over; Group II, 100,000 to 249,999; Group III, 50,000 to 99,999; Group IV, 25,000 to 49,999; Group V, 10,000 to 24,999; Group VI, under 10,000 population (Federal Bureau of Investigation, 2002).

Department of Law Enforcement, 2004) and the Florida Department of Financial Services recorded police expenditures in 279 Florida municipalities in the 2002 Local Government PDF Reports (Florida Department of Financial Services, 2004).

As discussed in Chapter I, law enforcement unions were selected because of the disproportionate amount of local government expenditures being spent on police services, and the belief that police officers appear to be more independent in terms of joining or not joining unions than other city employees such as firefighters because of the nature of their occupation. Police departments rather than sheriffs' offices were selected as study subjects because until January of 2003, sheriff deputies in the state of Florida had been prohibited from negotiating union contracts (Schlueb, 2003). In January, 2003 a Florida Supreme Court ruling declared that deputy sheriffs are public employees entitled to collective bargaining. The initial collective bargaining agreement can require a year or more to finalize according to a Deputy County Administrator in Orange County, Florida (Schlueb, 2003). It thus was unlikely that many collective bargaining agreements for Florida Deputy Sheriffs existed for a year before the time of this writing, while most agreements had been well established among Florida unionized municipal police departments.

The community size was specified according to population levels because of the effects population exerts upon unions and local government budgets. Communities with small populations, and subsequently small police forces, usually do not have police unions and yet experience a higher proportionate level of police service expenditures (Valetta, 1989: 433). This situation results in the reverse economies of scale effect. Such situations would thus tend to overstate the impact of non-unionized departments on levels of police expenditures. Municipalities greater than 50,000 in population might experience greater expenditures strictly

because of size. Such municipalities also tend to have greater union densities, which together with increased size demands would overstate the impact of unionized departments on levels of police expenditures.

Sources of Data

Various sources of information will provide the actual data for research. The Florida Department of Financial Services provides the expenditure levels for each local government in a series of documents identified as *Annual Financial Information Reports,* specifically the *Florida Local Government PDF Detail Expenditure Reports*. All cities which do not exhibit complete information on all independent and dependent variables will be deleted from the research for the year in which the data is defective or missing. This practice is consistent with empirical studies in the literature (Schwochau, Feuille, Delaney, 1988: 424).

Section 218.32, Florida Statutes requires counties and municipalities to submit annual financial information to the Department of Banking and Finance. Section 218.33, Florida Statutes mandates that reporting units use the Uniform Accounting System Chart of Accounts as the standard for recording and reporting financial information to the State of Florida so that annual financial reports are consistent throughout the state. This information, as presented in the Florida Local Government PDF Reports will provide the base data for the dependent variables, the various types of police expenditures. The object classes specified by the Uniform Accounting System Chart of Accounts to be used by this study are: Personal Services; Operating Expenses; and Capital Outlays. The year selected for analysis is 2002, the latest data available to the study. All values expressed by the dependent variables will thus be police expenditures in Florida reported to have occurred in the year 2002.

Millage rates and taxable values are listed in the State of Florida, Department of Revenue, Florida Property Valuation and Tax Data Book. These two variables will act as controls in the regression models, representing the overall ability of the municipality to finance varying levels of police expenditures. High taxable values within the jurisdiction have the potential to generate higher levels of revenue for municipalities that seek to increase police expenditures. On the other hand, lower taxable values indicate that the sample property tax base in a community has fewer resources to fund increased police expenditures. These factors would clearly affect bargaining outcomes because the availability of resources for police expenditures may be restricted.

The U.S. Bureau of the Census provides figures for the demographical independent variables such as education, income, age, race, population, density, median housing values, owner occupied housing, and proximity to metropolitan statistical areas. The Florida Department of Law Enforcement (FDLE) maintains police ratios for each law enforcement agency in the state, and this study will utilize the FDLE ratios for observations to construct an independent variable related to police staffing in communities. Crime rates for each municipality can be found in either FDLE files or in the Federal Bureau of Investigation Uniform Crime Reports. These sources will be utilized in preparing the independent variable representing crime rates for the municipalities. Finally, the independent variable of concern, unionization, will be obtained from the records of the Florida Department of Law Enforcement.

Table 3 specifies the research questions to be resolved, lists the information required to resolve the question, and provides the data source with which the hypotheses can be tested to answer the research questions. Each set of hypotheses will be tested through regression variables

that are formulated by the data located in the various sources. Research Question 1 will be resolved by testing the first set of hypotheses presented by the study:

H_{01}: There is no difference in total police expenditures between communities with police union representation, and those communities without police union representation.

H_{A1}: There are greater levels of total police expenditures in cities with police union representation, compared with those cities without police union representation.

Research Question 2 will be resolved by testing the second set of hypotheses presented by the study:

H_{02}: There is no difference in levels of police expenditures for personal services between communities with police union representation and those communities without police union representation.

H_{A2}: There are greater levels of police expenditures for personal services in cities with police union representation compared with those cities without police union representation.

Research Question 3 will be answered through statistical testing of the third set of hypotheses:

H_{03}: There is no difference in levels of police operating expenses expenditures between cities with police union representation and those cities without police union representation.

H_{A3}: There are greater levels of police operating expenses expenditures in cities with police union representation and those cities without police union representation.

Research Question 4 will be resolved by testing the fourth set of hypotheses:

H_{04}: There is no difference in levels of police capital outlay expenditures between cities with police union representation and those cities without police union representation.

H_{A4}: There are greater levels of police capital outlay expenditures in cities with police union representation and those cities without police union representation.

Since the required data involves such a broad spectrum of information to adequately specify the models, Table 3 utilizes various data bases from no fewer than four major governmental agencies: The Florida Department of Law Enforcement (FDLE); the Florida

Table 3. Research Questions and Data Sources.

Research Questions	Information Required	Sources of Data				
		FDLE Criminal Justice Agency Profile	FDLE County and Municipal Offense Data	Florida Dept. of Financial Services	Florida Dept. of Revenue	U.S. Bureau of the Census/ Office of MGMT & Budget
Overarching Issue: Do police unions influence local government police department expenditures?						
Research Question 1: Do police unions influence total police department expenditures?	Dependent Variable: Total police department expenditures for each Florida municipality. Demographic Controls affecting expenditures Financial Controls impacting level of police department expenditures Law enforcement factors that may increase or decrease police department spending	Independent Variable of Concern: Unionization	Law enforcement factors control variables: Crime Rates, Cases Cleared.	Dependent Variable for Total Expenditures Model.	Financial Control Variables: Millage Rate, Total Property Value (Tax Base).	Demographic control variables: Population, Education, Landarea, Over 65, Race, MSA, MAJRACE
Research Question 2: Do police unions influence police department personal services expenditures?	Dependent Variable: Police department personal services expenditures for each Florida municipality. Demographic Controls affecting expenditures Financial Controls impacting level of police department expenditures Law enforcement factors that may increase or decrease police department spending	Independent Variable of Concern: Unionization	Law enforcement factors control variables: Crime Rates, Cases Cleared.	Dependent Variable for Personal services Expenditures Model.	Financial Control Variables: Millage Rate, Total Property Value (Tax Base).	Demographic control variables: Population, Education, Landarea, Over 65, Race, MSA, MAJRACE
Research Question 3: Do police unions influence police department operating expenses expenditures?	Dependent Variable: Police department operating expenses expenditures for each Florida municipality. Demographic Controls affecting expenditures Financial Controls impacting level of police department expenditures Law enforcement factors that may increase or decrease police department spending	Independent Variable of Concern: Unionization	Law enforcement factors control variables: Crime Rates, Cases Cleared.	Dependent Variable for Operating expenses model.	Financial Control Variables: Millage Rate, Total Property Value (Tax Base).	Demographic control variables: Population, Education, Landarea, Over 65, Race, MSA, MAJRACE
Research Question 4: Do police unions influence police department capital outlays expenditures?	Dependent Variable: Police department capital outlay expenditures for each Florida municipality. Demographic Controls affecting expenditures Financial Controls impacting level of police department expenditures Law enforcement factors that may increase or decrease police department spending	Independent Variable of Concern: Unionization	Law enforcement factors control variables: Crime Rates, Cases Cleared.	Dependent Variable for Capital outlays model.	Financial Control Variables: Millage Rate, Total Property Value (Tax Base).	Demographic control variables: Population, Education, Landarea, Over 65, Race, MSA, MAJRACE

Department of Financial Services; the Florida Department of Revenue; and the U.S. Bureau of the Census.

Procedures

Four different hypotheses stated in the study, each with a separate dependent variable, will require a separate regression model for each hypothesis. The independent variable of interest, and all specified control variables will be used consistently in all four models. The models, and the rationale and selection of each control variable will be explained in this section. The chosen analytical techniques will also be discussed in this section. These techniques include quantitative statistical methods to examine the existing data, and qualitative research to increase the depth of understanding for the results produced by quantitative methods.

Empirical Models

The level of police expenditures can be explained by the generic expression of each model which resembles:

$$Y = f\ (U, D, F, L) + \epsilon$$

Where:

Y = The dependent variable

U = Union presence or unionization, the independent variable of interest.

D = A causal dimension for control which offers a number of variables and represents the demographic influences upon the dependent variable(s).

F = The second causal dimension of factors affecting the dependent variables relates to various financial indicators of the local government. The primary variable in this dimension would be a proxy for the community's ability to fund police expenditures.

L = The final causal dimension of factors affecting the dependent variable. The variables included in the resulting dimension to be controlled are factors related to the law enforcement environment specific to the local government in the observation.

Most of the estimates resemble the reduced form model as follows:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_N X_N + \epsilon$$

Where:

Y_i = Dependent variables, government size as measured by: Overall police expenditures; Personal services police expenditures; Police operating expenses expenditures; and Police capital outlay expenditures.

β_0 = The intercept for the model(s)

β_i = The resultant coefficients for the independent and control variables.

X_1 = Union presence or unionization, the independent variable of concern. This variable constitutes a dichotomous "dummy" variable which designates whether or not the sample unit is unionized (as indicated by a unitary value of 1) or nonunionized (as indicated by the null value, 0). Nonunionized police departments would thus be the referent base value for the regression model. An affirmative, unitary entry would create a value added contribution to the ultimate value of the dependent variable within the regression model.

X_2 = A variable drawn from a dimension of variables representing the demographic factors affecting the dependent variable. The variable can be age, population, landarea, education, race, and so forth.

X_3 = A variable drawn from a dimension of variables representing the financial factors affecting the dependent variable. These sets of variables will model the financial influences within the community. The taxable value or tax base of the community, either in whole numbers or in capita terms is one possibility. The millage rate, or tax levy per each thousand dollars of value may contribute to the amount of expenditures. Both of the forgoing factors may contribute influence in determining the level of police expenditures in a community.

X_4 = A variable drawn from a dimension of variables representing the law enforcement factors affecting the dependent variable. Crime rate, or number of Part I crimes divided by 100,000 is one such variable. Another variable in this dimension would be cases cleared, which is the percentage of Part I crimes solved by the police department.

X_N = Other variables drawn from the three dimensions of control variables as determined by research.

As previously discussed, four separate models are required, one for each hypothesis. The structural form of each model will either be identical to or very similar to each other. Since the models utilize separate dependent variables, problems such as endogeneity may result in an instrument variable substituting for any variable subject to reverse causation. The only readily noticeable change from model to model will be the dependent variable. Figure 2 summarizes each of the four models.

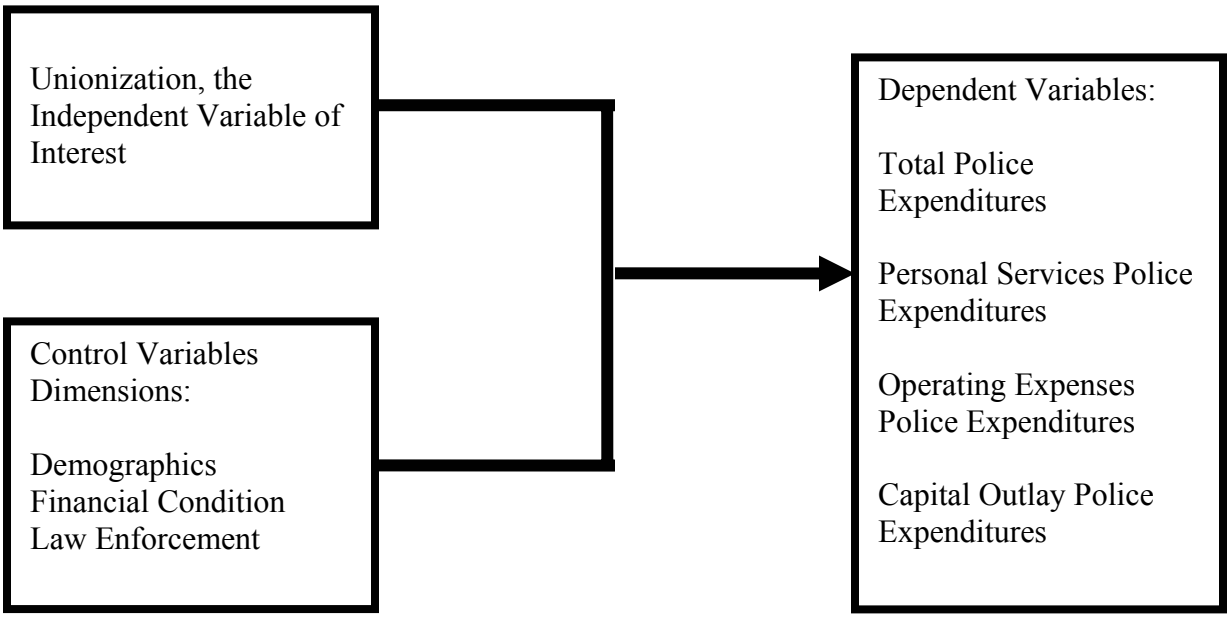

Figure 2. The empirical model for testing

Dependent Variables

The dependent variable for the first hypothesis, TTLPOL$, or total police operating budget expenditures, refers to the primary cost of providing and maintaining a police force within the community. These expenditures include all three categories of the police operating budget: personal services expenditures; operating expenses; and capital outlays. The variable will

Table 4. Suggested List of Regression Models' Variables

Dependent Variables

TTLPOL$ – Total police operating expenditures
POLPER$ – Police personal services expenditures
POLOPEX$ – Police operating expenditures
POLCAP$ – Police capital outlays

Independent Variable of Concern

UNION – Whether or not police agency is unionized

Control Variables - Demographic

POPULATN – Number of residents in a municipality
LANDAREA – The amount of land within the community in square miles
OWNHOME – The percentage of residents owning their own home
EDUCATN – Percent of residents having a high school education or more
INCOME – Median level of income for the municipality
OVER65 – Percent of citizens 65 years or older
MAJRACE – Percent of white Americans in a community
MSA – Whether or not community is included in an MSA, CMSA, or PMSA

Control Variables – Finance Base

TAXVALUE – Amount of taxable value within the community
MILLAGE – Current rate of taxation (property tax) within the community

Control Variables – Law Enforcement Factors

CRIMERTE – FBI Part I crimes per 100,000 residents
CASESCLR – Number of FBI Part I crimes solved

be used to test the first hypothesis to determine whether or not unionization impacts total police expenditures. Using police expenditure aggregate amounts for each municipality as dependent variables may create heteroscedasticity as a result of disproportionate scales. Large communities would exhibit much larger police expenditures in comparison to smaller communities because of large population requirements. In the effort to maintain uniformity for the purpose of comparison, the dependent variable in the first model may require conversion from the total police expenditures stated for each city to a form which offsets data irregularities. One suggested method for uniform comparisons would utilize natural logs of departmental expenditures (Gely & Chandler, 1995: 176; Valletta, 1989: 434-435). The latter method may have to be utilized if the conversion of choice (aggregate expenditure amounts) results in heteroscedasticity. Schwochau, Feuille, and Delaney (1988: 424) resorted to using the log of per capita police expenditures.[30]

POLPER$ serves as the dependent variable for the second hypothesis, which questions whether or not police unionization affects police personal services expenditures in local government. This expenditure category encompasses salaries and wages, including sick and annual pay, as well as benefits such as insurance, education reimbursement programs, and so on. Training and other costs, however, are not included in this category. The figures selected for the dependent variable will relate to line items identified by the State of Florida Uniform Accounting System Chart of Accounts as personal services expenditures. Similar to the methodology used in testing the first hypothesis, data transformation of police personal services expenditures will yield a uniform measure for the dependent variable in this instance as well. As with the

[30] While not explained in the Schwochau et al article, conversion of the per capita expenditures to log form was likely performed to correct or prevent heteroscedasticity.

TTLPOL$ model, the dependent variable POLPER$ may be required to be expressed in logarithm format for reasons previously discussed.

POLOPEX$, the dependent variable in the third hypothesis, emerges from the day-to-day operating or functioning expenses for police services. POLOPEX$ includes such items as small police equipment purchases, training, fuel for patrol vehicles, etc. The variable will help determine if unionization has any influence on the level of spending in this category. Initially, the variable will be stated in an aggregated amount, but should heteroscedasticity problems arise, the ratio will be converted to logarithm form as noted previously in the discussion of the earlier dependent variables.

The last dependent variable, POLCAP$, is the amount of capital outlay a local government spends for police services. This expenditure category includes such items as computer networks, patrol vehicles, police technology, and other equipment that receives capital accounting attention rather than aggregately classified in police operating expenses. As with the preceding dependent variables, POLCAP$ will initially be expressed in aggregate form, and possibly further converted to logarithm form to avoid problems of heteroscedasticity. The variable will be used to resolve the issue posed by the fourth hypothesis, which questions whether or not unionization plays a part in influencing police capital outlay expenditures.

The Independent Variable: Unionization

Unionization (UNION), the independent variable of concern, indicates whether or not a police union exists within the sampled police department. The variable will be utilized in a dichotomous or “dummy” fashion in which a unitary value indicates presence of a union within the sampled department and the null value represents an absence of unionization. The non-

unionized police department would thus be the reference state within the regression model, and the unionized police department within the model would express a value-added quantity to the base reference model. The selection of format for the independent variable is consistent with most of the studies referenced in the literature review that studied the effects of unionization upon police department expenditures. The fact that a union has been certified by the Florida Public Employees Relations Commission bestows a legal ability to collectively bargain regardless of other factors, such as the number of union members.[31] Analysis by Masters and Atkin (1996: 183) argues that the number of union members may not adequately measure union strength. Masters and Atkin, noting that public sector unions withstood the Reagan-Bush era quite well (1996: 196), emphasize that even declining union membership does not necessarily result in a loss of influence (1996: 194). The mere presence of a union thus extends a formidable influence within a local government agency by virtue of its legal status as bargaining agent. However, as discussed previously, public sector unions, regardless of membership, also commands a political force with a network of support from parent and other labor organizations (Carter and Sapp, 1992: 18; Coleman, 1990: 104).

The selected data year for the independent variable will be 2001 because the influence of the union on budget decisions is more likely to be exerted in the planning year, or the year before the expenditures are incurred. The information will be secured from the Florida Department of Law Enforcement's 2001 Criminal Justice Agency Profile (Florida Department of Law Enforcement, 2001) which reports police department profiles for the year 2001.

[31] Florida Statutes Section 447.309 requires that once the employee organization is certified, the bargaining agent for the organization and the chief executive officer of the public employer jointly "shall bargain collectively in the determination of the wages, hours and terms and conditions of employment of the public employees within the bargaining unit."

The independent variable, UNION, serves as the proxy for formalized employee voice. As such, the variable will serve as an indicator of whether or not focused and organized employee voice can make a difference in a public sector agency. UNION, then, is the personification of voice and the measure of its potential influence in such settings as police departments. If organized employee voice does exert influence within employing organizations, then UNION should yield significant variables within regression models, despite a large number of control variables within the model.

Control Variables/Demographic Dimension

The dimension of variables within the demographic dimension controls for the effects of various influences that such factors as population, wealth, and other considerations may have upon the dependent variable. The variable POPULATN will represent the total number of individuals living in a municipality. The most current population estimates will provide the required data. LANDAREA, or the amount of land per square mile in a community, is one variable that could conceivably contribute to decisions of police staffing and budgets. The variable EDUCATN, or number of high school graduates within the community, may also be an important factor. The number of citizens owning their own home in a community, OWNHOME, could also influence the amount of expenditures allotted to the police department. These influences should be paired with the dependent variables through measures of association to determine if such factors do contribute to causality. U.S. Census Bureau tables (United States Census Bureau, 2005) will provide LANDAREA, OWNHOME and EDUCATN data.

In addition, variables for age and race are other considerations that could influence the dependent variables. A retirement community might not require the same type of services as a

community comprising of young families. OVER65 will serve as the proxy for age influences on police expenditures by expressing the percent of citizens over 65 years of age in the municipality. Communities with racial diversity might demand a different level of police services than in communities without such diversity. The percentage of white Americans within the community would be represented by the variable MAJRACE. Finally, within the demographics dimension, the proximity of a smaller community to a large city might also be taken into consideration. MSA is a variable that denotes whether or not accounts a community is included within a Metropolitan Statistical Area (MSA), a Consolidated Metropolitan Statistical Area (CMSA), or a Primary Metropolitan Statistical Area (PMSA). The U.S. Census Bureau provided data for OVER65, MAJRACE. Information for MSA data came from the U.S. Office of Management and Budget (United States Office of Management and Budget, 2005).

Control Variables/Financial Factors Dimension

The ability to pay for police services undoubtedly determines staffing levels as well as the amount of money spent on police services within a community. Variables from the dimension of financial condition represent this situation in the empirical models of the study. TAXVALUE is a variable which provides the level of taxable value within the local government. This variable indicates the potential that the community has to finance desired police services levels. Communities with properties at lower appraised values probably would not be able to fund city services at the same level as similarly sized communities containing more valuable property. MILLAGE is an independent variable that presents the current rate of taxes within the community. This variable represents the tax load shouldered by citizens of the community. The data for the variables TAXVALUE and MILLAGE were secured from the Florida Department of

Revenue figures for 2001 (Florida Department of Revenue, 2002). The 2001 figures were used in the study because financing for the fiscal year 2002 was derived from 2001 revenues, and budget decisions for 2002 were planned in 2001.

Control Variables/Law Enforcement Dimension

The final dimension of independent variables includes descriptives of the law enforcement characteristics of the community. First and foremost is the variable CRIMERT1, which the Federal Bureau of Investigation's Uniform Crime Reports (UCR) provides through the UCR Crime Index system. Wilson (1978: 220) noted that when crime increases, the conventional public response was to demand better and/or more law enforcement. This response results in greater expenditures to hire more police and provide them with more equipment. Witt (1990: 169-170) used crime rate with significant results in the attempt to identify control variables for police expenditures. The Crime Index refers to Part I crimes per 100,000 inhabitants of a community. The FBI defines Part I crimes as the violent crimes of murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault and the property crimes of burglary, larceny-theft, and motor vehicle theft. The degree of crime in a community should exert some influence on decisions of staffing and funding police services. CRIMERT1 will control for that influence in the models.

Another variable in the law enforcement dimension is CSESCLR1, a variable which represents the level of commitment and capability within the community to reduce crime. The variable is calculated by determining the ratio of the number of cases solved to the total number of reported crimes. A community with an aggressive program to reduce crime will direct more resources to law enforcement, causing police expenditures to rise.

Data for both law enforcement factor variables (CRIMERT1 and CSECLR1) will be secured from the Florida Department of Law Enforcement's County and Municipal Offense Data (Florida Department of Law Enforcement, 2002). The year selected for both law enforcement factor variables is 2001. Consistent with the reasoning used for UNION, TAXVALUE, and MILLAGE, the year 2001 was selected because budget decisions for 2002 were planned in 2001. Legislators are more likely to be sensitive to conditions existing at the time the budget is formulated. Moreover, the exact crime rate and percentage of cases cleared are not known to public administrators until the end of the year.

Analysis Design

Cross sectional data will be employed by the study. Once compiled, the data will be regressed in the formats discussed in the previous sections. The most recent complete financial data available for analysis from the Florida Department of Financial Services is that of the year 2002. Final choice of which reported figures to use in the analysis also poses a concern. The Florida Local Government PDF Expenditure Detail Report presents two possibilities for use in financial research. The first choice is the total financial transaction in the object class, which Florida Financial Services labels as "Total Memo" in the report. The advantages to using this figure is that the number used for Total Memo represents all resources used in that object class, including transactions from all the various categories of funds. Arguably, this figure takes all influences into consideration. The disadvantage of using this figure is that funds over which unions have very little or no control, such as grants-in-aid and special revenue funds, are included in the total amounts. This situation would dampen and possibly even mask union influence by including large amounts of financial transactions in which the union has no voice.

The second set of figures presented by the Florida Local Government PDF Expenditure Detail Reports that could be used by the study is the amount listed as emerging from the "General Fund." The General Fund provides the financial resources through which police departments operate. While monies from this fund exclude the effects of long range planning, they are more reflective of union influence within the government decision making process. General Fund amounts are usually the result of short term (one year) budgeting strategies which are affected by the bargaining outcomes of labor relations. While it is true that unions may influence decisions regarding land purchases and other major capital budget items, it is more likely that unions will attempt to influence short term expenditures in which they have a greater immediate interest. Police expenditures stated within the Total Memo column are not as sensitive as are the amounts stated in the General Fund in the same object class. As stated in Chapter I of this study, total police expenditures are 31% of the total General Fund in the year 2002 for an average community in the state of Florida , but only 11% of total 2002 annual municipal expenditures in the average Floridian community (Florida Department of Financial Services, 2004). The General Fund also presents a more reliable picture of the use of available resources because financial shortcomings of a municipality are not adjusted or corrected by other funds. As discussed previously, "the financial health of the General Fund often largely determines the financial health of the unit as a whole" (Freeman & Shoulders, 1999: 573).

A Pearson's correlation matrix will be generated to assess the relationships between variables, while descriptive statistics will be computed for evaluative and comparative purposes. The selected instrument to test the hypotheses is ordinary least squares. Subsequent variance inflation factor would confirm that multicollinearity was not a factor among the variables.

Since there are four separate hypotheses with four dependent variables, each hypothesis will be tested by multivariate regression analysis using the independent and control variables specified previously. The right side of the regression equations will remain the same throughout all the models. Only the dependent variables will change from model to model. Total expenditures and personal services expenditure models will provide bases for comparison with prior research and subsequent modeling results. The final two regressions, which use operating expenditures and capital outlays as dependent variables, will analyze the little understood relationships between unionization and operating expenses and between unionization and capital outlays of the operating, or annual budget.

Qualitative Research: The Search for Insight

Experiential information often provides the primary source of scientific knowledge. Such information often emerges during interviews of participants active in the subject studied (Mauch & Park, 2003). As noted by Marshall and Rossman (1999: 2), qualitative research is "pragmatic, interpretative, and grounded in the lived experiences of people." Acknowledging the foregoing principles, this study includes qualitative research as part of its methodology to acquire an in-depth understanding of the data examined by quantitative analysis. In recent years, qualitative research has expanded into a number of fields, and many studies now combine quantitative and qualitative research (Goodwin, 2003). The two research designs often complement each other and interpret the results in different dimensional formats, thus ultimately leading to a better understanding of the subject. This study, in an attempt to achieve the greatest possible understanding of the subject of police unions' influences, subsequently engages both quantitative and qualitative methods in its research design. As discussed previously, the quantitative portion

of the study will use regression and other statistical techniques. The qualitative methodology of the study features interviews of public administrators closely associated with the primary concerns of this study.

Interview Protocol

Officials from seven different Florida cities were interviewed. Each municipality selected for interview was selected according to a number of criteria. One criterion is the location of the city. At least two cities from each of the three regions of the state were selected. Another criterion was population. One large city, four medium cities, and two small cities were selected.[32] Another aspect of location is the relationship of the city to that of other cities. Some cities selected were relatively remote from other cities while other cities selected were part of a larger urbanized area.

Two non-unionized departments will be selected to compare labor relations with that of unionized departments. While there may be some differences caused by location and other considerations in communities of similar size, the primary differences between the police departments in the example cases are that one of the communities experiences collective bargaining with police employees while the other community does not. This condition should yield different perspectives on how labor relations affect police expenditures in municipalities according to collective bargaining status.

Another characteristic considered in selecting the city was the demographic profile. Some cities have a relatively high over 65 years of age population, some have a relatively smaller over 65 population. Most cities in Florida have the white "race" as the predominant ethnic group, but

[32] Population determined the size of the city. The cities were grouped according to the categories discussed at the beginning of this chapter.

a few cities have proportionately higher population of people of color. Cities can also vary according to the percentage of owner-occupied housing, taxable values, education, and other attributes. Since each of these demographic characteristics could possibly influence community values that determine police expenditures, the effort was made to include a variety of these characteristics in the final selection of cities. The characteristics of the selected municipalities will be described in the chapter on qualitative perspectives.

Babbie (2001: 240) points out that in-depth, qualitative interviewing techniques rely almost exclusively on open-end questions. Guided by this observation, the results of the quantitative portion of the study will be shared with at least one pertinent local government representative from each of the city categories used in the study. Each representative official will then be asked to comment on the results of the analysis, provide their interpretations of the results, and explain to what extent the results compare with their observations. The interviewees will also be asked to describe their personal observations of police union influences within local government, and the manner in which these influences operate. Interviewing "insiders" would ensure that possible causal factors have not been omitted from the model, and subsequently the study itself. In some cases, complexities and processes can only be understood or discerned through qualitative methodology (Marshall & Rossman, 1999). Since union influences on police expenditures involve complex interpersonal relations, nuances that remain hidden from statistical analysis could very well be revealed by local government officials aware of their existence through personal observations and professional experiences. While such influences may evade quantification, awareness of their existence will provide a richer understanding of the research topic.

In order to determine specific causes of police expenditures in a number of cases, more definitive questions may be posed to the interviewed officials. Comparisons of responses and information acquired from the cities then can be made between unionized and non-unionized departments. These comparisons should provide some understanding of the quantitative results by identifying certain characteristics that may be present in unionized departments that are not present in non-unionized departments.

CHAPTER FOUR: RESULTS AND FINDINGS

This study began the examination of the union impact on police expenditures in Florida by segregating police expenditures into four component categories. Total police expenditures data comprises the first category and provides a reference basis for the study's first hypothesis that unions do impact police expenditures in Florida. Personal services expenses form the base of reference for the study's second expenditure category, as well as providing the data for the hypothesis that unions specifically impact police personal services expenses. The study's third category of expenses involves police operating expenses, the day-to-day cost of law enforcement excluding expenditures related to personnel or capital outlays. Included in this category are such items as training, small equipment purchases, utility expenses, maintenance, operating supplies, and similar expenses. The study's final expenditure category is that of capital outlays, which includes purchases of items such as computers, vehicles, and other expenditures for capital equipment.

Using the methodology described in Chapter III, statistical analysis tested each of the hypotheses separately. Linear regression modeling produced varying results with the four models. Three of the models indicated that strong evidence existed to support the hypotheses that union presence influence impacted those categories of expenditures. However, the capital outlays model failed to suggest that unions contributed any significant impact on police expenditures in that category. Standardized coefficients for the union variable emerged considerably stronger than suspected in two of the models (total police expenditures, LTTLPOL$, and personal services expenses, LPER$), and exhibited a strong presence in the third model (operating

expenses, LOPEX$). Discussion will ensue on the merits of each of the statistical findings for each model and conclude with a combined evaluation of the three surviving models.

Characteristics of the Data

Although Section 218.32 of the Florida Statutes requires counties and municipalities to submit annual financial information to the Department of Banking and Finance, a number of cities did not report this information or did not report the information accurately. In addition, the same or other municipalities failed to report data to the Florida Department of Law Enforcement as required. In a number of cases, this information was able to be reconstructed or supplied by the non-reporting cities. In other cases, the missing information did not present problems to the regressions because the information was not required to construct the variables used in the regressions. Those cases in which the critical data was not reported or not reported accurately resulted in rejection of the data set for the non-reporting entities. This was particularly true of cities that did not report the expenditure information, because serving as regressands, accurate expenditure information was critical to the models. Altogether, the analysis included a final sample of 257 Floridian cities of varying sizes with usable and accurate data.

The data fluctuates dramatically, as might be expected in a state the size of Florida. As an example, Greensboro, FL spent only $57,224 to provide law enforcement services for its 627 residents, whereas Tampa used over $95 million in total police expenditures for over 311,000 residents. Standard deviations for the four dependent variables, as high as $12 million in the case of total police expenditures, underscore the very large range in values for the expenditure figures. 257 municipalities had sufficient and accurate data to perform reliable regressions for total police expenditures and personal services expenditures. 257 municipalities had sufficient and accurate

data on operating expenses, and 257 cities had sufficient data on capital outlays. One of the variables (MILLAGE) had only 250 samples available as a result of non-report to the Department of Financial Services. However, since the variable did not later show a significant correlation with any of the dependent variables, no attempt was made to reconcile the missing data. For all the other variables, independent and control variables, sufficient data was available or able to be secured.

Table 5. Descriptive statistics for all the variables.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TTLPOL$	257	57224.00	9.5E+07	6213156	12428921
PER$	257	36984.00	8.5E+07	5217732	10762599
OPEX$	257	14073.00	1.1E+07	850977.1	1726456
CAPOUT$	257	.00	1672171	144446.4	212579.8
UNION	257	.00	1.00	.5798	.49456
TAXVALUE	257	6680544	1.6E+10	1.3E+09	2.40E+09
LANDAREA	257	.13	112.07	10.9339	16.90417
MAJRACE	257	14.60	99.30	78.7463	17.36929
OVER65	257	3.80	62.90	21.2093	10.74813
OWNHOME	257	29.10	95.80	69.3984	12.85742
EDUCATN	257	29.10	98.90	79.0778	12.63688
POPULATN	257	320.00	364389.0	25377.77	45600.15
MSA	257	.00	1.00	.8210	.38409
CRIMERT1	257	525.76	44083.70	5884.654	4246.201
CSECLR1	257	.00	105.26	26.3382	16.21395
MILLAGE	250	.61	9.85	5.1150	1.95808
Valid N (listwise)	250				

The means for the dichotomous variables provide indication as to the relative proportions of both unionization and number of incorporated local governments within the state of Florida. The independent variable of concern (UNION), having a value of .5798, discloses that nearly 58% of the sampled cities have unionized police departments. The control variable MSA with a

mean of .8210 reveals that more than 82% of the sampled cities are within a metropolitan statistical area. Standard deviation values for both variables are substantial, indicating a widely dispersed data set.

The variable representing the total tax value within a community (TAXVALUE) presents the greatest spread of values in the data with Tampa having over 2500 times the taxable value of small Greensboro. For this variable, the standard deviation value is over $2 billion. LANDAREA exhibits the smallest data spread for aggregate value-based variables. Measured in square miles, South Palm Beach is the smallest in area from the data set at 0.13 square miles, which belies its population of over 1,500 citizens. The very large Tampa, having 112.07 square miles within its boundaries needs the space for over 311,000 residents. Jacksonville (757.68 square miles) is not included in the data set because law enforcement services in that city are provided by sheriff's office deputies. The demographic control variable POPULATN shows great fluctuations also and should provide very significant controls, along with TAXVALUE, on the very large variations of the dependent variables. Miami anchors the upper end of the data range with over 360,000 people, and Manalapan is the smallest at 320.

One law enforcement factor control variable, CRIMERT1, measures Part 1 crimes committed for every 100,000 residents. This ratio should offer a leveling of proportions that render comparisons more equally. However, as might be expected, major crimes tend to be more typical of larger rather than smaller cities. Moreover, many different factors affect crime rate besides the size of the city. For instance, crimes in a smaller city will also inflate the relative proportions of crime rates as compared to a larger city. A city with 1,000 residents that experiences two cases of violent crime will have twice the crime rate of a city with 2,000 that also counted two violent crimes in a year. As a result, even though the variable is stated in

proportions, the range for data recording the incident of crime is noticeably broad. It is anticipated that the greater the crime rate, the greater police expenditures.

The original data representing crime rate was drawn from 2002, the same year as the expenditures data. However, expenditure decisions are more likely to be based on conditions existing at the time of the budget planning period with little variation during the year the expenditures are incurred. 2002 data for crime rates and cases cleared would not significantly contribute to the decisions of expenditures because these rates are occurring at the same time the expenditures are being incurred. The budgets for departments usually are decided in the year previous to the expenditures. Crime rates and the percentage of cases cleared would therefore be more likely to impact decisions of resource allocation as the information became available. Crime rate and cases cleared in 2002 would not be immediately known to decision makers until after the expenditures of 2002 had been made. Information from the previous year would be available to decision makers as they were contemplating budgets for the following year. The 2001 data thus replaced the 2002 data. Crime rate is not expected to impact budget significantly except in those cases the crime rate rises substantially to garner the attention of municipal decision makers and thus becomes a political issue. If crime rate rises to the point it attracts public or political attention, police expenditures would in all likelihood increase to offset the increase in crime. More officers may be hired, or additional law enforcement hours may be used to decrease the rate of crime. This would require higher level of expenditures. The same rationale was applied to the cases cleared data.

MILLAGE, a finance variable, represents the current rate of taxation in a community. Greenville, FL has the highest millage rate at 9.85, Sneads the lowest at .611. Florida imposes a "10 mill" cap on local government, restricting communities to taxation limits of $10 per $1,000.

The average millage rate of 5.1150 is accompanied by a standard deviation of 1.958, which indicates that slightly more than 68% of millage rates for municipalities in Florida lie between 3.1569 and 7.07308.

The remainder of variables is stated in percentage formats. These include MAJRACE, OVER65, OWNHOME, EDUCATN, and CSECLR1. All but CSECLR1 emerge from the demographics dimension of variables. The demographic variables account for factors that would also cause police expenditures to rise and/or fall. The mean of the data set is an average of the various percentages expressed for each city. This value will vary from the actual percentage computed on the summed aggregate figures. That is to say, the mean of the percentages for 257 cities will be different than the percentage computed for the state as a single unit. Thus, the means will not compare meaningfully with the percentages for the entire state which have been calculated in the aggregate. In other words, the means expressed in the SPSS Output tables are averages of the values expressed in the data. The state average, on the other hand, is calculated by actually tabulating the number of residents over 65 for the entire state and deriving the proportional percentage of the number of people over 65 years of age as compared to the entire state population. The range of values for OVER65 illustrates the spread of percentages from relatively young rural areas to retirement communities. The OWNHOME and EDUCATN range between minimum and maximum values are very similar, but subsequent correlation checks ruled out collinear impacts within the regression models. Usually descriptive statistic comparisons among percentage based variables provide little information for generalization. As discussed, the mean of percentages for 257 cities will be different than percentages of a demographic factor computed for the entire state as a single unit. However, individual

representation of these types of variables within regression models can be very significant, as will be demonstrated.

CSECLR1 is a law enforcement factor variable, and varies from no Part 1 crimes solved to over 100% solved. One city actually expressed a value of cases cleared greater than 100%. The latter sample may have been the result of spillover calculations from the previous year. This anomaly occurred only once in the data and the value was recorded unchanged in the data base. As explained in the discussion of the CRMRTE1 variable, 2002 data was replaced by the 2001 data. The annual number of cases cleared is not available to decision makers the year in which the cases are being cleared because the year has not been concluded. However, decision makers have some idea as to the rate of cases cleared for the previous year. Based on this information, that is information from the previous year, the decision makers allocate resources accordingly. While the decisions may not be made on knowledge of the actual numbers of cases being cleared, the decision makers will base their decisions upon reports from police departments regarding whether or not the departments are receiving adequate funding to fight crime. This rationale will be tested in the regression models of this research, and the CSECLR1 variable represents the level of effectiveness at a specific point in time for law enforcement efforts, given available resources. The average percentage of cases cleared for the sample set was slightly above 26%, but again varies by a substantial margin from community to community as demonstrated by the relatively large standard deviation. In this case, the standard deviation indicates that 68% of Florida cities clear anywhere between 10% and 42.5% Part 1 crimes each year.

As discussed in the *Dependent Variables* section of Chapter Three, it was anticipated that heteroscedasticity would exist in some of the data, particularly with the expenditure data. Gely

and Chandler (1995: 176) resorted to natural logs of police and firefighter expenditures while Valletta (1989: 434-435) and Schwochau, Feuille, and Delaney (1988: 424) also used logarithmic transformation as well for expenditure data. Rather than define per capita expenditures as the dependent variable, this study placed population on the right side of the equation in a manner consistent with Valetta (1989: 434) and Gely and Chandler (1995: 176).[33] In other words, population was used as a control variable along with a field of other control variables that determine the amount of expenditures. For ease of interpretation, every attempt was made to contain data transformation on the left side of the model equations. That is, every attempt was made to keep the control variables in unchanged form to make it easier to understand their effect upon the dependent variable, which is the only variable to the left of the equation.

The great variation in police expenditures from one community to another suggests that heteroscedasticity, or unequal variances of the error term, may pose a problem to regression models using expenditures data from varying sizes of cities. Heteroscedasticity tends to exist in this type of data because larger communities with proportionately larger tax revenues tend to have more discretion in their spending decisions than smaller communities (Berman, 2002: 140). Plotting the standardized residuals against the standardized predicted values in the Total Police Expenditures model confirms that heteroscedasticity is present. Figure 3 illustrates this situation. The error term plots for each of the models reveals that the error terms possess disproportionate variances that begin by clustering tightly around the center of the chart but then expanding dramatically to the right in the scatterplot. Using the raw (untransformed) data for the four

[33] Right side of the equation refers to all the control variables to the right of the equal sign, whereas the dependent variable is positioned to the left of the equal sign. A variable representing total population in this methodology acts as a controlling factor that explains changes in the dependent variable so that the dependent variable does not have to be stated in per capita terms, but instead stated in its total value or in a form representative of the total value.

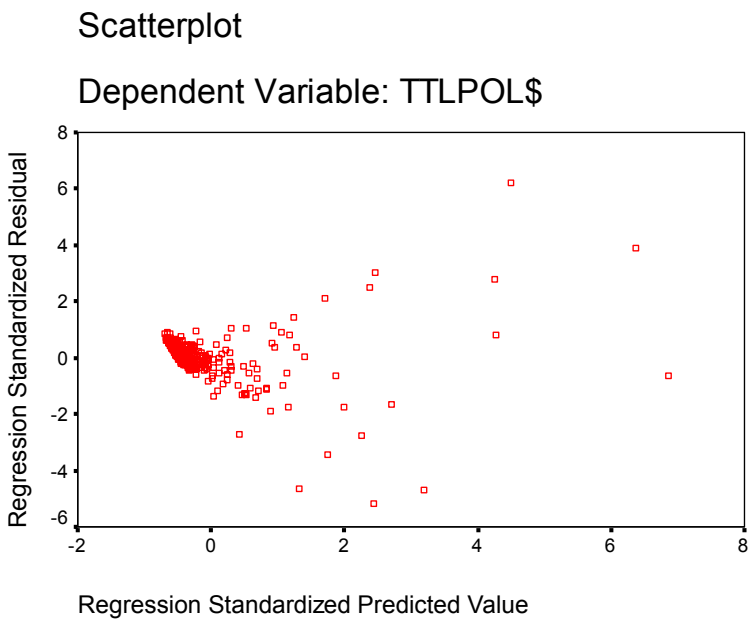

Figure 3 Untransformed Data Scatterplot**.**
Regressions using the untransformed data for police expenditures produce the classic trumpet shape of heteroscedasticity when plotting standardized residuals against standardized predicted values.

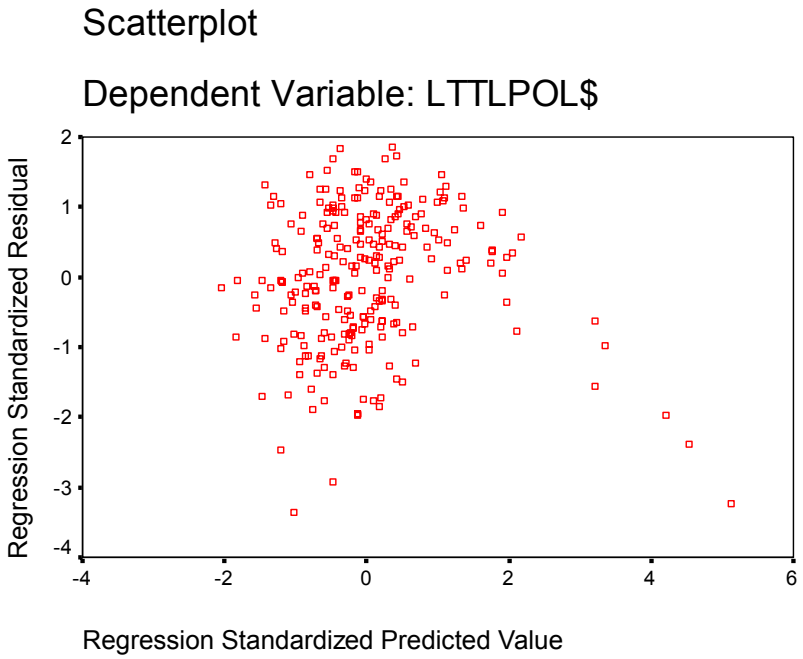

Figure 4 Transformed Data Scatterplot.
Transforming the same police expenditures data through natural logarithms results in more equal variances which ensure a random distribution of the error term.

police expenditures variables would result in the statistical significance of the regression coefficients to be underestimated (Berman, 2002: 140).

In order to overcome the problem of heteroscedasticity, the data should be transformed in a manner that the scales of differences among the data values are minimized. Log transformations compress the scales by which the variables are measured so that the differences between two values are reduced from tenfold to twofold (Gujarati, 2003: 421). Gujarati uses the example of the number 80 being 10 times greater than the number 8, but that the natural log of 80 (4.3820) is only about twice as great than the natural log of 8 (2.0794). Logarithmic transformations, using natural logs were thus applied to the police expenditure data sets. As demonstrated in Figure 4, the logarithmic transformation eliminated the heteroscedasticity and scattered the error terms in a more random distribution around the center of the chart. Using this transformation methodology with the dependent variables is consistent especially with the Gely and Chandler studies (1995: 176; 1993a: 300).

Identifying the Viable Control Variables

Pearson's Correlation Coefficient measures the association between two variables in terms of significance, strength and direction. However, Pearson's Correlation Coefficient does not demonstrate a causal relationship as does linear regression (Berman, 2002: 122). Evaluating bivariate relationships, particularly between the dependent variables and the independent/control variables, allows the researcher to quickly determine which independent variables to include in regression models. Tables 6 through 9 display results of the bivariate relationships in separate correlations matrixes that begin with each dependent variable. Each matrix presents the results of a dependent variable and a field of 12 independent/control variables.

Since the hypotheses of the study suggest that unions impact police expenditures by causing an increase in the expenditures in comparison with non-union departments, one tailed tests of significance are used in the correlation matrixes rather than the two tailed tests.[34] In the first three correlation matrixes, the UNION variable shows a strong associate with the dependent variables LTTPOL$ (natural log of total police expenditures), LPER$ (natural log of personal services expenditures), and LOPEX$ (natural log of operating expenses). The fourth matrix, which features LCAPOUT$ (natural log of capital outlays) indicates that there is an association, but the association is not nearly as strong as in the first three matrixes. The fourth matrix records that the correlation between the UNION variable and the dependent variable is significant at the .05 level, but the first three matrixes all indicate that the correlation between the UNION variable and the dependent variables are at the .01 level. All the matrixes would suggest that the UNION variable should be included in the multivariate regressions proposed by the study.

A large number of control variables emerge from the matrixes with varying degrees of correlation with the dependent variables. TAXVALUE, LANDAREA, and POPULATN exhibit very strong relationships with the dependent variables in the first three matrixes, while in the fourth matrix those three variables achieve only moderate strength in correlation with LCAPOUT$, the dependent variable in subsequent regressions. TAXVALUE, LANDAREA, and POPULATN should be included in regression models proposed by the study.

The OWNHOME, MSA, and CSECLR1 variables retain moderate strength in the correlation with the dependent variables throughout the first three matrixes, but weaken

[34] As presented by the literature, the assumption being made is that the presence of unions results in greater expenditures. The two-tailed test determines where or not the means of the populations may differ (H_1: $\mu_1 \neq \mu_0$), that is, whether or not union and non-union departments have either less than or greater than expenditures. Since the literature does not support this contention but instead states that unions cause increased expenditures, the study utilizes a one-tailed test. The one-tailed test (H_1: $\mu_1 > \mu_0$) is used in those cases which it is to be determined whether or not the conclusion that is possible is that the mean of one population (unionized departments) is greater than the mean of another population (non-unionized departments). (Spatz, 2001: 170-171).

Table 6. Pearson's Correlations – Model 1

	LTTLPOL$	UNION	TAXVALUE	LANDAREA	MAJRACE	OVER65	OWNHOME	EDUCATN	POPULATN	MSA	CRIMERT1	CSECLR1	MILLAGE
LTTLPOL$	1.00												
UNION	.496**	1.00											
TAXVALUE	.718**	.307**	1.00										
LANDAREA	.621**	.261**	.629**	1.00									
MAJRACE	-.053	.078	.003	-.098	1.00								
OVER65	-.085	.015	-.034	-.171**	.508**	1.00							
OWNHOME	-.306**	-.092	-.214**	-.163**	.529**	.408**	1.00						
EDUCATN	.202**	.217**	.142*	.083	.654**	.398**	.469**	1.00					
POPULATN	.729**	.309**	.856**	.720**	-.123*	-.188**	-.304**	-.016	1.00				
MSA	.411**	.281**	.215**	.174**	.289**	.057	.076	.416**	.210**	1.00			
CRIMERT1	.198**	.121*	.109*	.099	-.481**	-.217**	-.479**	-.332**	.128*	-.088	1.00		
CSECLR1	-.310**	-.265**	-.186**	-.106	.025	-.107*	.022	-.150**	-.154**	-243**	-.082	1.00	
MILLAGE	.099	.044	.007	.048	-.492**	-.301**	-.294**	-.472**	.157**	.025	.387**	-.079	1.00

** Correlation is significant at the 0.01 level (1-tailed).
* Correlation is significant at the 0.05 level (1-tailed).

Table 7. Pearson's Correlations – Model 2

	LPER$	UNION	TAXVALUE	LANDAREA	MAJRACE	OVER65	OWNHOME	EDUCATN	POPULATN	MSA	CRIMERT1	CSECLR1	MILLAGE
LPER$	1.00												
UNION	.506**	1.00											
TAXVALUE	.713**	.307**	1.00										
LANDAREA	.612**	.261**	.629**	1.00									
MAJRACE	-.046	.078	.003	-.098	1.00								
OVER65	-.078	.015	-.034	-.171**	.508**	1.00							
OWNHOME	-.304**	-.092	-.214**	-.163**	.529**	.408**	1.00						
EDUCATN	.203**	.217**	.142*	.083	.654**	.398**	.469**	1.00					
POPULATN	.724**	.309**	.856**	.720**	-.123*	-.188**	-.304**	-.016	1.00				
MSA	.414**	.281**	.215**	.174**	.289**	.057	.076	.416**	.210**	1.00			
CRIMERT1	.197**	.121*	.109*	.099	-.481**	-.217**	-.479**	-.332**	.128*	-.088	1.00		
CSECLR1	-.312**	-.265**	-.186**	-.106	.025	-.107*	.022	-.150**	-.154**	-243**	-.082	1.00	
MILLAGE	.100	.044	.007	.048	-.492**	-.301**	-.294**	-.472**	.157**	.025	.387**	-.079	1.00

** Correlation is significant at the 0.01 level (1-tailed).
* Correlation is significant at the 0.05 level (1-tailed).

Table 8. Pearson's Correlations – Model 3

	LOPEX$	UNION	TAXVALUE	LANDAREA	MAJRACE	OVER65	OWNHOME	EDUCATN	POPULATN	MSA	CRIMERT1	CSECLR1	MILLAGE
LOPEX$	1.00												
UNION	.416**	1.00											
TAXVALUE	.711**	.307**	1.00										
LANDAREA	.633**	.261**	.629**	1.00									
MAJRACE	-.109*	.078	.003	-.098	1.00								
OVER65	-.116*	.015	-.034	-.171**	.508**	1.00							
OWNHOME	-.321**	-.092	-.214**	-.163**	.529**	.408**	1.00						
EDUCATN	.155**	.217**	.142*	.083	.654**	.398**	.469**	1.00					
POPULATN	.716**	.309**	.856**	.720**	-.123*	-.188**	-.304**	-.016	1.00				
MSA	.357**	.281**	.215**	.174**	.289**	.057	.076	.416**	.210**	1.00			
CRIMERT1	.201**	.121*	.109*	.099	-.481**	-.217**	-.479**	-.332**	.128*	-.088	1.00		
CSECLR1	-.269**	-.265**	-.186**	-.106	.025	-.107*	.022	-.150**	-.154**	-243**	-.082	1.00	
MILLAGE	.086	.044	.007	.048	-.492**	-.301**	-.294**	-.472**	.157**	.025	.387**	-.079	1.00

** Correlation is significant at the 0.01 level (1-tailed).
* Correlation is significant at the 0.05 level (1-tailed).

Table 9. Pearson's Correlations – Model 4

	LCAPOUT$	UNION	TAXVALUE	LANDAREA	MAJRACE	OVER65	OWNHOME	EDUCATN	POPULATN	MSA	CRIMERT1	CSECLR1	MILLAGE
LCAPOUT$	1.00												
UNION	.140*	1.00											
TAXVALUE	.252**	.307**	1.00										
LANDAREA	.343**	.261**	.629**	1.00									
MAJRACE	-.062	.078	.003	-.098	1.00								
OVER65	-.007	.015	-.034	-.171**	.508**	1.00							
OWNHOME	-.113*	-.092	-.214**	-.163**	.529**	.408**	1.00						
EDUCATN	.152**	.217**	.142*	.083	.654**	.398**	.469**	1.00					
POPULATN	.300**	.309**	.856**	.720**	-.123*	-.188**	-.304**	-.016	1.00				
MSA	.162**	.281**	.215**	.174**	.289**	.057	.076	.416**	.210**	1.00			
CRIMERT1	.078	.121*	.109*	.099	-.481**	-.217**	-.479**	-.332**	.128*	-.088	1.00		
CSECLR1	-.124*	-.265**	-.186**	-.106	.025	-.107*	.022	-.150**	-.154**	-243**	-.082	1.00	
MILLAGE	-.035	.044	.007	.048	-.492**	-.301**	-.294**	-.472**	.157**	.025	.387**	-.079	1.00

** Correlation is significant at the 0.01 level (1-tailed).
* Correlation is significant at the 0.05 level (1-tailed).

considerably in the fourth matrix showing correlation with the dependent variable LCAPOUT$. CRIMERT1 also shows a low moderate relationship with the first three matrixes, but weakens to insignificance in the fourth matrix which features the natural log of capital outlays as the main interest in bivariate correlations. The four variables, OWNHOME, MSA, CSECLR1, and CRIMERT1 will therefore be utilized as control variables in the police expenditure regressions.

Of the nine variables expressing a significant association with the dependent variables, EDUCATN displays a weak to moderate correlation to the dependent variables in all four correlation matrixes. EDUCATN approaches moderate strength (.202 & .203) in the first two matrixes, but downgrades (.155 & .152) somewhat in the last two matrixes. However, in all four sets of correlations, EDUCATN is significant. This variable will thus also be included in the field of control variables injected into the regression models.

In the third correlation matrix (Table 8), two variables (MAJRACE and OVER65) attain a status of significance, but in none of the other correlations with the expenditure variables does this situation occur. However, it is suspected that this relation may be spurious and these variables will be tested in the models for regression significance after the models have been specified. Although at least one regression model in the literature (Witt, 1990: 170) found a positive and significant relationship between the percent of citizens 65 and older and police expenditures, this study's correlation matrixes for the most part failed to detect a significant relationship between police expenditures and the over 65 group of residents. In only one set of correlations (between OVER65 and LOPEX$) does the age variable demonstrate any significance in relationship with expenditures, and even then the relationship demonstrates a low coefficient of correlation value of -.116. Moreover, the age-expenditures correlation coefficient

Table 10. Final List of Regression Models' Variables

Dependent Variables

LTTLPOL$ – Natural Log of total police operating expenditures
LPER$ – Natural log of police personal services expenditures
LOPEX$ – Natural log of police operating expenditures
LCAPOUT$ – Natural log of police capital outlays

Independent Variable of Concern

UNION – Whether or not police agency is unionized

Control Variables - Demographic

LANDAREA – The amount of land within the community in square miles
OWNHOME – The percentage of residents owning their own residence
EDUCATN – Percent of residents having a high school education or more
POPULATN – Number of residents in a municipality
MSA – Whether or not community is included in a metropolitan statistical area.

Control Variables – Finance Base

TAXVALUE – Amount of taxable value within the community

Control Variables – Law Enforcement Factors

CRIMERTE – FBI Part I crimes per 100,000 residents
CASESCLR – Number of FBI Part I crimes solved

in this research exhibits an inverse relationship, which possibly suggests that the results are spurious in light of Witt's findings, that is, the finding is not true or genuine in this instance. Witt (1990: 118) used a national sample of cities in excess of 25,000. According to Bureau of Census figures, the average percentage of residents 65 years of age and older for the nation is 12.4%, but the same group of residents in Florida constitutes 17.6% of the total (U.S. Bureau of the Census, 2005). Moreover, the fact that Witt restricted his sample to cities in excess of 25,000 likely changed the demographic characteristics considerably from that of this study which includes all cities with police departments regardless of size in Florida. The combination of these two factors (larger percentage of residents over 65 in Florida and varying population ranges of the samples) in all likelihood contributed to different results in this study as compared to that of Witt. Both studies are correct, but yield different results primarily because of the proportionately different number of residents over 65 in the respective studies.

A final variable, MILLAGE, suggested as a possible control, failed to display significance in any of the correlations with the variables specified as the eventual dependent variables. As the rate of taxation per thousand dollars of assessed value, the level of acceptable taxation is not as significant in determination of expenditures as is the total tax value of the property within the community. For this reason, TAXVALUE, another variable from the financial dimension will be included in the final regression models while MILLAGE will be discarded as a control variable.

A review of the correlation matrixes indicates that a degree of multicollinearity may be present among some of the data. Most notably, the variables TAXVALUE, and POPULATN show high correlation coefficients. Usually, a high value (about .8 or .9 in absolute value) in correlations between two independent variables may be cause for concern. However, two points

merit special consideration. First, the existence of multicollinearity does not necessarily mean that the coefficient estimates have unacceptably high variances (Kennedy, 1998: 187). Second, even in the case of near multicollinearity, the Ordinary Least Squares (OLS) estimators (regression coefficients) are unbiased (Gujarati, 2003: 349).

Equally important, as noted by Gujarati (2003: 370), multicollinearity may not pose a serious problem if the R^2 of the model is high and the regression coefficients are individually significant as demonstrated by higher t values. Most importantly, greater harm could result by the usual remedy for multicollinearity of dropping a variable that is multicollinear. This action could result in committing a specification bias or specification error (Gujarati, 2003: 364) that compromises the integrity of the model.

The classical signs of serious multicollinearity are usually the combined existence of high model R^2s with correspondingly insignificant regression coefficients as determined by conventional *t-tests*. With these points in mind, the study will include both variables (TAXVALUE, and POPULATN) in the models and test for multicollinearity within the regressions by using more precise diagnostics such as the variance inflation factor. Since the sample data includes all of Florida municipalities with police departments, the alternative available to correct serious signs of multicollinearity would be to discard the POPULATN or TAXVALUE variables.

Multicollinearity and the Variance Inflation Factor

As discussed, an examination of the Pearson's Correlation Coefficient matrixes revealed moderate to strong correlations between the control variables POPULATN and TAXVALUE. Upon further consideration, a moderate to strong correlation between these two variables would

not be surprising. As the population within a city increases, it would be expected that the assessed value of all properties within the city would increase to accommodate the increased population. More housing would be required to house the additional residents, which would add value to the tax base. However, this increase is neither corresponding in amount nor consistently related. A growing community may experience much greater growth in commercial property compared to residential property. The increased commercial growth may be designed to attract trade from surrounding communities as well. Moreover, the change in value with population may vary greatly according to the type of housing and recreational facilities constructed to accommodate the population growth. One community may construct a marina or golf course while another community of the same size in population may have vacant, undeveloped land. The resultant value of properties within the two communities, although having the same size population, may be very different in their assessed amounts. Both variables, POPULATN and TAXVALUE thus have unique contributions to the models.

The control variable POPULATN does not represent the relative ability of the community to pay for greater expenditures since some communities have considerably greater resources available than similarly sized communities. In addition, the control variable TAXVALUE does not accurately indicate the number of people living within the jurisdiction, and the accompanying needs of a larger population. Larger populations create dynamics that generate greater need for increased law enforcement that are unrelated to the combined wealth of the community. Thus, in the case of this study, a very real danger of misspecification exists with the common multicollinearity remedy of discarding a variable that exhibits a *possible*, *approximate* linear relationship with another independent variable. The relationship between POPULATN and

Table 11. Collinearity Statistics for the Significant Models*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	13.502	.439		30.789	.000		
	UNION	.498	.104	.178	4.780	.000	.784	1.275
	TAXVALUE	1.29E-10	.000	.223	3.301	.001	.238	4.204
	LANDAREA	1.34E-02	.004	.164	3.406	.001	.468	2.135
	OWNHOME	-2.0E-02	.005	-.185	-4.327	.000	.591	1.691
	EDUCATN	1.63E-02	.005	.149	3.309	.001	.536	1.864
	POPULATN	7.69E-06	.000	.253	3.279	.001	.182	5.481
	MSA	.608	.138	.168	4.396	.000	.738	1.354
	CRIMERT1	2.33E-05	.000	.071	1.844	.066	.725	1.379
	CSECLR1	-7.9E-03	.003	-.092	-2.620	.009	.883	1.133

a. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	13.249	.452		29.288	.000		
	UNION	.550	.108	.191	5.110	.000	.784	1.275
	TAXVALUE	1.29E-10	.000	.218	3.216	.001	.238	4.204
	LANDAREA	1.28E-02	.004	.152	3.139	.002	.468	2.135
	OWNHOME	-2.0E-02	.005	-.183	-4.255	.000	.591	1.691
	EDUCATN	1.65E-02	.005	.147	3.244	.001	.536	1.864
	POPULATN	8.02E-06	.000	.257	3.315	.001	.182	5.481
	MSA	.632	.143	.170	4.427	.000	.738	1.354
	CRIMERT1	2.37E-05	.000	.071	1.817	.070	.725	1.379
	CSECLR1	-8.1E-03	.003	-.092	-2.607	.010	.883	1.133

a. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	11.885	.484		24.582	.000		
	UNION	.296	.115	.106	2.575	.011	.784	1.275
	TAXVALUE	1.55E-10	.000	.269	3.618	.000	.238	4.204
	LANDAREA	1.81E-02	.004	.220	4.157	.000	.468	2.135
	OWNHOME	-2.1E-02	.005	-.195	-4.130	.000	.591	1.691
	EDUCATN	1.32E-02	.005	.120	2.427	.016	.536	1.864
	POPULATN	5.67E-06	.000	.186	2.192	.029	.182	5.481
	MSA	.522	.153	.145	3.424	.001	.738	1.354
	CRIMERT1	2.18E-05	.000	.067	1.569	.118	.725	1.379
	CSECLR1	-6.5E-03	.003	-.076	-1.970	.050	.883	1.133

a. Dependent Variable: LOPEX$

TAXVALUE is not an exact linear relationship, being below .9 in Pearson's correlation value. Linear relationships between variables are usually either approximate or exact (Kennedy, 2001: 184). Exact refers to changes at identical rates between two variables. Approximate linear relationship refers to similar changes between two variables which can lead to estimating problems. A more detailed examination of the nature of the relationship between TAXVALUE and POPULATN is required. Also required is an assessment of the degree of possible multicollinearity and an accompanying evaluation of the effects, if any, such a relationship has on the entire model. The results of such an examination will determine the necessary remedial action, if one is necessary.

A more precise collinearity diagnostic, the variance inflation factor test, was utilized to determine whether or not multicollinearity was a serious problem in the models. The SPSS statistical package provides collinearity diagnostics upon demand concurrent with the execution of regression analysis. These diagnostics were invoked during regressions of the tentative models and the results reproduced in Table 10. Since the fourth model, which regressed on the dependent variable CAPOUT$ (capital outlays), never achieved significance, the results of this model are discussed separately.

The three significant models (LTTLPOL$, LPER$, and LOPEX$) display variance inflation factors of 5.481 for the control variable POPULATN. The variance inflation factors for the control variable TAXVALUE in these models are at 4.204, which is acceptable. As a rule of thumb, if the variance inflation factor of a variable exceeds 10, that variable is said to be highly collinear (Gujarati, 2003: 362; Kennedy, 2001: 190). Both POPULATN and TAXVALUE exhibit variance inflation factors below 10. However, some scholars suggest that multicollinearity may exist for variance inflation factor values greater than 5. The control

variable POPULATN is well below the common threshold of 10, and slightly above the more conservative threshold of 5.

Kennedy (2001: 184) notes that the ordinary least squares (OLS) estimator in the presence of multicollinearity remains unbiased and may still be the best linear unbiased estimator. Kennedy also points out that the major undesirable consequence of multicollinearity is that the variances of the OLS estimates of the parameters of the collinear variables may be quite large (Kennedy, 2001: 184). In the case of both POPULATN and TAXVALUE, the variances are not great enough to warrant remedial action. The standard errors are extremely small for both variables, and result in significant t statistics greater than 2 in value. The classic results of serious multicollinearity are high R^2 and insignificant t statistics (less than approximately 2 in numerical value). Kennedy (2001: 187) quotes a rule of thumb which states that if the t statistics are greater than 2, multicollinearity is not a cause of concern.

Considerations that dismiss multicollinearity as a concern in the study's models are: the variance inflation factors for all the variables are far below the usual multicollinearity threshold value of 10; only one variable (POPULATN) is just slightly above the most conservative multicollinearity threshold value of 5; all of the variables within the models are significant except for CRIMERT1 in the very last regression of the last model; the surviving models are significant; and there is no better linear unbiased estimator available to control for community wealth. Remedial transformation or omission of the POPULATN variable would be unnecessary given the considerations discussed, and could lead to specification errors within the models.

Regression Results - Hypotheses Testing

Ordinary least squares (OLS) was used to test the four hypotheses of the study. This methodology is consistent with, and therefore comparable to the models presented in the literature. In addition, ordinary least squares is also a common procedure with which most scholars are familiar. The four separate categories of expenditures become regressands in the four separate models, and as such are the dependent variables. The independent variable of concern, UNION, denotes the presence of unionization within each sample. As a regressor, UNION will provide the basis for testing each hypothesis. Significance of this variable in the models will provide evidence that unionization does indeed impact the dependent variable(s), and cause, on the average, increases in police department expenditures.

The First Hypothesis

The first model in the study tests to determine whether or not unionization increases total police expenditures. The regression results will indicate whether or not there is evidence that unions have the ability to increase police expenditures in general for municipalities in a right-to-work state such as Florida. It is expected that the statistical (or null) hypothesis will be rejected and evidence provided to support to research hypothesis:

H_{01}: There is no difference in total police expenditures between communities with police union representation, and those communities without police union representation.

H_{A1}: There are greater levels of total police expenditures in cities with police union representation, compared with those cities without police union representation.

Table 12 presents the results of nine separate regressions that begin with a simple bivariate model and concludes with a multivariate model consisting of nine variables that represent the demographic, the finance-based, and the law enforcement factor variables entered

Table 12. OLS General Fund Regressions for natural log of total police expenditures in Florida municipalities

	1	2	3	4	5	6	7	8	9
UNION	1.393*** (.153)	.855*** (.117)	.802*** (.112)	.792*** (.109)	.685*** (.109)	.645*** (.107)	.573*** (.104)	.544*** (.104)	.498*** (.104)
TAXVALUE	-	3.604E-10*** (.000)	2.740E-10*** (.000)	2.590E-10*** (.000)	2.383E-10*** (.000)	1.282E-10*** (.000)	1.423E-10*** (.000)	1.350E-10*** (.000)	1.285E-10*** (.000)
LANDAREA	-	-	2.030E-02*** (.004)	1.978E-02*** (.004)	1.990E-02*** (.004)	1.302E-02*** (.004)	1.363E-02*** (.004)	1.307E-02*** (.004)	1.344E-02*** (.004)
OWNHOME	-	-	-	-1.566E-02*** (.004)	-2.612E-02*** (.005)	-2.443E-02*** (.005)	-2.320E-02*** (.004)	-1.982E-02*** (.005)	-1.999E-02*** (.005)
EDUCATN	-	-	-	-	2.014E-02*** (.005)	2.392*** (.005)	1.506E-02*** (.005)	1.687E-02*** (.005)	1.633E-02*** (.005)
POPULATN	-	-	-	-	-	8.762E-06*** (.000)	7.100E-06*** (.000)	7.663E-06*** (.000)	7.689E-06*** (.000)
MSA	-	-	-	-	-	-	.659*** (.139)	.662*** (.138)	.608*** (.138)
CRIMERT1	-	-	-	-	-	-	-	2.608E-05** (.000)	2.328E-05* (.000)
CSECLR1	-	-	-	-	-	-	-	-	-7.856E-03*** (.003)
Adjusted R^2	.244	.597	.632	.651	.673	.688	.713	.716	.723
N	257	257	257	257	257	257	257	257	257

Notes: Standard error in parenthesis
* Significant at .10
** Significant at .05
*** Significant at .01

General Fund OLS Standardized Coefficient Values for LTTLPOL$

Regression	Variables	Standardized Coefficients Beta
9	UNION	.178
	TAXVALUE	.223
	LANDAREA	.164
	OWNHOME	-.185
	EDUCATN	.149
	POPULATN	.253
	MSA	.168
	CRIMERT1	.071
	CSECLR1	-.092

singly to observe and test the significance of the impact the union variable has upon the dependent variable, total police expenditures. UNION remains consistently significant across all nine regressions. The final nine-variable regression model is very strong with an adjusted R^2 of .723. In this particular model, all of the control variables are also significant. The contribution of each of these variables to the model will be discussed in a later section.

The slopes of the coefficients (or **un**standardized coefficients values) do not provide a basis with which the relative strengths of the independent or control variables can be determined because of the differences in the absolute values of the respective variables. To determine which independent/control variable has the greatest impact upon the dependent variable, standardized coefficients (or betas) are calculated with the sole intent to compare relative values to determine which independent or control variable has the greatest impact upon the dependent variable. A standardizing measure is used to render a statistic capable of determining the relative strengths among a field of independent and control variables. Standardized coefficients (or betas) are the measure of the change in the dependent variable by a unit of change in the independent variable when both are measured in terms of standard deviation units (Gujarati, 2003: 174; Berman, 2002: 129). This process thus standardizes the measures so that coefficients for the variables can be compared in an identical format. Since the coefficients can have either positive or negative values, the absolute value of the standardized coefficients (betas) are used in comparative analysis so that a variable with a standardized coefficient of -6 has greater impact upon the dependent variable than a variable with a standardized coefficient value of +2. The greater the beta value, positive or negative, the greater the impact the variable has upon the dependent variable.

The standardized coefficients (or betas), which measure the relative "weight" or influence on the dependent variable in the model as compared to all other variables within the model, indicate that the presence of a union within the community has greater impact on police expenditures than all but three other variables (see inset table to Table 12). The relative values of the standardized coefficients suggest that unionization in a municipality has greater influence on police expenditures than: the size of the community in square miles; the level of education in the community; whether or not the city is part of an metropolitan statistical area; the crime rate in most situations; and the effectiveness of law enforcement in the community.

In the semi-log model specified to test the hypothesis, the dependent variable appears in log form and the independent and control variables appear in linear form. This type of semi-log model is commonly referred to as a "log-lin" model. The appearance of this type of model would appear thus: lnEXP = intercept + $\beta_i X_i$ in which β_i is the unstandardized coefficient multiplied times the value of the variable, X_i. lnEXP is the natural logarithmic expression of expenditures. Once the arithmetic functions have been performed, that is the product of β_i times the variable is added to the intercept, the final value is converted by an antilog to its actual value. The coefficient β_i measures the relative change in the dependent variable for an absolute change in the value of the variable.

In log-lin models, the coefficients of the independent variables can be multiplied by 100 to indicate a percentage change in the dependent variable for an absolute change in the variable. The slope co-efficients therefore measure the relative change in the dependent variable for an absolute change in the independent and control variables. The exception to this rule of log-lin interpretation of coefficients is that of the dichotomous, or dummy variables. Because of the dichotomous nature of these types of variables, interpretations of the coefficients for dummy

variables are different than those for continuous variables (Kennedy, 1981: 801; Halvorsen & Palmquist, 1980: 474). Instead of the coefficients being converted to the percentage change value in the dependent variable by simply multiplying the value by 100, dummy variables first require a logarithmic operation to interpret the percent change in the dependent variable. Kennedy (2001: 108) states that percent change in Y (%ΔY) is equal to the base of the natural log raised to the power of the coefficient value for the dummy variable and then subtracting the value of 1 ($e^{\beta} - 1$). Thus the formula can be written out as: $\%\Delta Y = e^{\beta} - 1$. Then the change in the dependent variable expressed in percentage form can be obtained by multiplying the result of the logarithmic operation ($e^{\beta} - 1$) by 100.

In the first model, the percentage change in the dependent variable can be interpreted to be the result of $e^{.498} - 1$ or .64543 since the coefficient value for UNION in the last regression is .498. With the field of variables in the final regression of the first model, the coefficient for the variable UNION (.498) indicates that unionization in a police department of a city in Florida could cause a relative change (increase) in police expenditures of 64.5% using the Kennedy formula. This result is consistent with the findings of the U.S. Bureau of Labor Statistics (2004d) which stated that the median weekly earnings for non-union employees in the protective services category is only 60% that of union employees in the same category. In addition, at least one study (Zax, 1989: 21) uncovered evidence that there were higher employment per capita ratios in bargaining units as compared to non-bargaining units. This increases costs further, as would supplemental pay benefits in unionized departments. Zhao and Lovrich (1997: 511) determined that the existence of collective bargaining in large police agencies was significantly correlated with the presence of supplemental pay benefits favorable to police officers. Finally, "roll-up" costs, or additional costs incurred by raising base compensation rates also rise with the increase

in wages (Carrell & Heavrin, 2004: 306). These costs include such items as the employer's social security contributions, the employer's unemployment insurance contributions, overtime pay, shift premiums, contribution to pension plans, and life insurance premiums in some instances. The first model, which features the dependent variable as the natural log of total police expenditures, provides evidence that unionization within a Florida municipality has a positive (increasing) effect on police department expenditures. The statistical or null hypothesis was thus rejected in the first model, and the research hypothesis received support. Cities in Florida, a right-to-work state, exhibit similar effects on police department expenditures as the cities in other states reported in the literature.

The Second Hypothesis

The second model in the study tests to determine whether or not unionization increases personal services expenses. The first set of regressions produced evidence that overall police expenditures were affected by unionization. In the effort to understand which categories of expenditures are affected by unionization, additional models are required to test hypotheses that examine the three separate categories of expenditures. The first of these categories are personal services expenditures, which are primarily salaries. As in the case of the first hypothesis, it is expected that the statistical (or null) hypothesis will be rejected and evidence provided to support the research hypothesis:

H_{02}: There is no difference in levels of police expenditures for personal services between communities with police union representation and those communities without police union representation.

H_{A2}: There are greater levels of police expenditures for personal services in cities with police union representation compared with those cities without police union representation.

Table 13. OLS General Fund Regressions for natural log of personal services expenditures in Florida municipalities

	1	2	3	4	5	6	7	8	9
UNION	1.457*** (.155)	.913*** (.120)	.862*** (.116)	.851*** (.113)	.743*** (.112)	.700*** (.110)	.626*** (.107)	.596*** (.107)	.550*** (.108)
TAXVALUE	-	3.646E-10*** (.000)	2.798E-10*** (.000)	2.646E-10*** (.000)	2.435E-10*** (.000)	1.286E-10*** (.000)	1.443E-10*** (.000)	1.358E-10*** (.000)	1.291E-10*** (.000)
LANDAREA	-	-	1.993E-02*** (.004)	1.939E-02*** (.004)	1.952E-02*** (.004)	1.233E-02*** (.004)	1.297E-02*** (.004)	1.239E-02*** (.004)	1.278E-02*** (.004)
OWNHOME	-	-	-	-1.594E-02*** (.004)	-2.658E-02*** (.005)	-2.482E-02*** (.005)	-2.354E-02*** (.005)	-2.011E-02*** (.005)	-2.027E-02*** (.005)
EDUCATN	-	-	-	-	2.049E-02*** (.005)	2.442E-02*** (.005)	1.524E-02*** (.005)	1.707E-02*** (.005)	1.651E-02*** (.005)
POPULATN	-	-	-	-	-	9.144E-06*** (.000)	7.419E-06*** (.000)	7.992E-06*** (.000)	8.018E-06*** (.000)
MSA	-	-	-	-	-	-	.684*** (.144)	.687*** (.143)	.632*** (.143)
CRIMERT1	-	-	-	-	-	-	-	2.654E-05** (.000)	2.367E-05* (.000)
CSECLR1	-	-	-	-	-	-	-	-	-8.061E-03** (.003)
Adjusted R^2	.253	.597	.629	.648	.669	.685	.710	.713	.720
N	257	257	257	257	257	257	257	257	257

Notes: Standard error in parenthesis
* Significant at .10
** Significant at .05
*** Significant at .01

General Fund OLS Standardized Coefficient Values for LPER$

Regression	Variables	Standardized Coefficients Beta
9	UNION	.191
	TAXVALUE	.218
	LANDAREA	.152
	OWNHOME	-.183
	EDUCATN	.147
	POPULATN	.257
	MSA	.170
	CRIMERT1	.071
	CSECLR1	-.092

Table 13 displays the results of the nine regressions that test the hypothesis to determine whether unionization causes increased police personal services expenditures in cities with police union representation. As in the first model and the subsequent models, the regression sequence begins with a simple regression on expenditures by the independent variable of concern, UNION, as the regressor. A total of eight control variables, each controlling for factors that influence police expenditure amounts, enter the model to remove bias and test the significance of the independent variable of concern. The results for the second set of regressions are similar to those in the first model, with the variable UNION retaining significance throughout the series of regressions. However, the effect of UNION upon personal services expenditures is slightly greater than with total police expenditures.

Table 13 reveals that the coefficient value for UNION in the final regression of the second model is significant with a value of .550. The percentage change in the dependent variable, police personal services expenditures can be determined by using the by using the formula for the logarithmic conversion of the coefficient of a dummy variable to percentage ($\%\Delta Y = e^{\beta} - 1$, or $e^{.550} - 1 = .73325$). In the final semi-log regression for the second model, the independent variable, UNION, is responsible for up to a 73% increase in personal services expenditures over police departments not unionized. The extent to which union affects personal services expenditures depends, of course, upon the size of the city and other factors.

The standardized coefficient for the independent variable also gained strength relative to the field of variables. In the first model, the UNION standardized coefficient was fourth in overall strength among the nine variables. In this, the second, model the standardized coefficient for UNION rises to third place, and is only surpassed in relative influence by the disproportionately strong variables POPULATN and TAXVALUE.

Although the static coefficient values of both POPULATN and TAXVALUE are considerably less than that of UNION, statistical measurement is not based on static values but the combined values present across all samples in the data set. While the UNION coefficient may have a static value of .550 in the second model, the value is only pertinent and extant approximately 57.98% of the time (the value expressed as the mean of the summed values of either 1 or 0 for 257 cities). So while in 57.98% of the cases the UNION coefficient produces a real value (being multiplied by the variable value of 1), the remainder of the time it produces no value added amount to the dependent variable because the coefficient is multiplied by a variable value of 0. The POPULATN and TAXVALUE coefficients consistently yield values across the entire range of the samples because in no case is the variable value 0. The range of POPULATN variable values is between a low of 320 and a maximum of 364,389 as described in Table 5. In addition, the logarithmic added values for UNION never exceed .550, but the logarithmic added values for POPULATN can go as high as 8.018E-06 x 364,389 or 2.92167. In log terms, this effect of POPULATN is slightly more than 5 times as great as UNION (2.92167/0.550 = 5.31) on the dependent variable. Converted from natural logarithm values to whole values, however, the effect (contribution of the size of the population to the dependent variable) is approximately 10 times as strong in the larger city.

The increase in standardized coefficient values in the personal services expenditure model would seem appropriate since the unstandardized coefficient or slope of the UNION variable is greater in the second model than in the first. The explanation for this situation is that unions impact police personal services expenditures at a greater rate than police total expenditures. This intuitive conclusion is somewhat supported by the empirical evidence of the literature which emphatically reports that unions tend to increase wages and benefits. Zhao and

Lovrich (1997) found that collective bargaining in large police agencies resulted in increased supplemental pay. Zax (1988) attributed the increases of city expenditures to negotiated higher salaries. Further support for the observation emerges from subsequent models in this study. The final nine-variable regression model for personal services expenditures shows a very strong adjusted R^2 value (.720) for the entire model. As with the first model, the control variables and the independent variable all remain significant. Again, explanations for the impact of the control variables will follow the discussion on the results of hypotheses testing. With UNION having a significant t-statistic in a model displaying a very strong adjusted R^2 accompanied by significant control variables' *t*-statistics, the statistical (null) hypothesis is rejected in this model, and the second research hypothesis subsequently receives support from the regression findings. The second model, using personal services expenditures as a dependent variable, offers strong evidence that unions play an important role in police personal services expenditures in Florida.

The Third Hypothesis

The third model in the study uses ordinary least squares procedures to determine whether or not unionization increases police operating expenses. The second of the three expenditure categories, police operating expenses accounts for such items as fuel for vehicles, utilities, supplies, and other purchases that support the law enforcement activities of a city. Since unions influence working conditions within their environs, it is anticipated that police operating expenses will be greater in unionized departments than in non-unionized departments. As with the first two hypotheses, it is expected that the statistical (or null) hypothesis will be rejected and evidence provided to support the research hypothesis:

H_{03}: There is no difference in levels of police operating expenses expenditures between cities with police union representation and those cities without police union representation.

H_{A3}: There are greater levels of police operating expenses expenditures in cities with police union representation and those cities without police union representation.

Table 14 presents the results of the nine regressions that culminate in the final nine-variable model. Once again the independent variable, UNION, exhibits significance throughout the nine regressions which gradually inject controls into the model one variable at a time. The third model uses 257 samples, the same as the previous two models, as a result of partially inaccurate reporting on the part of a municipality in Florida. The R^2 of the third model expresses a value of .663, which places the third model in the very strong model (highest model category) category, along with the first two models. R^2 values above .40 are considered strong, while R^2 values above .65 are considered very strong (Berman, 2002: 122).

In a manner similar to the first two models, the independent variable, UNION, remains statistically significant throughout all nine regressions of the third model. The natural log of police operating expenses acts as the dependent variable in this series. The final nine-variable regression model yields a UNION slope coefficient of .296, which can be interpreted to mean that the presence of unionization is responsible for a 34.4% increase ($e^{.296} - 1 = .34447$) in police operating expenditures for municipalities in Florida. Although manifesting a considerably smaller impact on operating expenses than on personal services expenditures, the model suggests that unionization causes substantial increases in police operating expenses.

The influence of the UNION independent variable perceptively downgrades in comparison with the control variables. In the second model (personal services expenses as the dependent variable), the independent variable was third in overall influence with respect to the

Table 14. OLS General Fund Regressions for natural log of police operating expense expenditures in Florida municipalities

	1	2	3	4	5	6	7	8	9
UNION	1.168*** (.168)	.613*** (.124)	.553*** (.118)	.541*** (.115)	.453*** (.116)	.422*** (.115)	.361*** (.113)	.334*** (.114)	.296** (.115)
TAXVALUE	-	3.714E-10*** (.000)	2.717E-02*** (.000)	2.549E-10*** (.000)	2.376E-10*** (.000)	1.554E-10*** (.000)	1.675E-10*** (.000)	1.607E-10*** (.000)	1.553E-10*** (.000)
LANDAREA	-	-	2.341E-02*** (.004)	2.282E-02*** (.004)	2.292E-02*** (.004)	1.778E-02*** (.004)	1.831E-02*** (.004)	1.778E-02*** (.004)	1.809E-02*** (.004)
OWNHOME	-	-	-	-1.765E-02*** (.004)	-2.634E-02*** (.005)	-2.508E-02*** (.005)	-2.403E-02*** (.005)	-2.090E-02*** (.005)	-2.103E-02*** (.005)
EDUCATN	-	-	-	-	1.674E-02*** (.005)	1.956E-02*** (.005)	1.198E-02** (.005)	1.365E-02** (.005)	1.320E-02** (.005)
POPULATN	-	-	-	-	-	6.547E-06** (.000)	5.124E-06** (.000)	5.646E-06** (.000)	5.667E-06** (.000)
MSA	-	-	-	-	-	-	.564*** (.152)	.567*** (.152)	.522*** (.153)
CRIMERT1	-	-	-	-	-	-	-	2.416E-05* (.000)	2.184E-05 (.000)
CSECLR1	-	-	-	-	-	-	-	-	-6.512E-03** (.003)
Adjusted R^2	.170	.545	.592	.617	.631	.639	.656	.659	.663
N	257	257	257	257	257	257	257	257	257

Notes: Standard error in parenthesis
* Significant at .10
** Significant at .05
*** Significant at .01

General Fund OLS Standardized Coefficient Values for LOPEX$

Regression	Variables	Standardized Coefficients Beta
9	UNION	.106
	TAXVALUE	.269
	LANDAREA	.220
	OWNHOME	-.195
	EDUCATN	.120
	POPULATN	.186
	MSA	.145
	CRIMERT1	.067
	CSECLR1	-.076

eight other variables. In the third model (police operating expenses), the standardized coefficient for UNION drops to seventh place in the field of nine variables, surpassing only crime rate and cases cleared in terms of impact on the dependent variable. Although UNION's strength of influence is not as great in the third model as it is in the second model (with personal services expenditures as the dependent variable), the independent variable's influence on operating expenses is very strong.

Since UNION manifested a significant t-statistics in a model which displayed a very strong R^2 and significant t-statistics in the control variables, the statistical (null) hypothesis is rejected in this model, and the third research hypothesis receives support from the regression findings. The third model, using operating expenses expenditures as a dependent variable, offers strong evidence that unions influence police operating expenses expenditures in Florida municipalities.

The Fourth Hypothesis

The fourth and final model relies on ordinary least squares methodology to determine whether or not unions influence increase capital outlay expenditures in Florida cities. The third and last of the three police expenditure categories, capital outlays include such equipment as police vehicles, computers and computer systems, as well as other capital equipment usually costing over $1000. It was predicted that unions, having voice in expenditure decisions in personal services and operating expenses expenditures, would also influence capital outlay expenditures. Similar in fashion to the first three hypotheses, it was expected that the statistical (or null) hypothesis will be rejected and evidence provided to support the research hypothesis:

H_{04}: There is no difference in levels of police capital outlay expenditures between cities with police union representation and those cities without police union representation.

H_{A4}: There are greater levels of police capital outlay expenditures in cities with police union representation and those cities without police union representation.

After conducting the bivariate correlation using Pearson's Correlations Coefficient (see Table 9), it was immediately apparent that the association between unionization and police capital outlay expenditures was not as strong as in the other models. Subsequent multivariate regressions, which test for causality, did not provide evidence for a significantly strong relationship between unionization and capital outlay expenditures. Although in simple regression the independent variable UNION demonstrated a significant t-statistic (see Table 15), UNION failed to demonstrate a robust relationship with the dependent variable in the presence of numerous control variables (see Table 15 summary and Tables E1 through E10 in Appendix E). As strong control variables (such as TAXVALUE and POPULATN) were added to the model, UNION ceased to exhibit significant t-statistics. Moreover, the standardized coefficient for UNION dropped to second last place in influence among the field of nine variables and the unstandardized coefficient ultimately produced erratic values in the regression series (see inset table in Table 15).

Model 4 at no time in the nine regressions achieved an adjusted R^2 greater than .140, even after all nine variables had been inserted into the model. The collinearity statistics produced no greater VIF values than in the previous three models, so the insignificant results can not be attributed to serious multicollinearity. The control variables that exhibited an inverse relationship continued that inverse relationship in the fourth model that they manifested in previous models, but the results for OWNHOME was not robust in the field of the nine independent/control

Table 15. OLS General Fund Regressions for natural log of capital outlays expenditures in Florida municipalities

	1	2	3	4	5	6	7	8	9
UNION	0.420** (.195)	.213 (.199)	.135 (.195)	.134 (.195)	2.535E-02 (.196)	-6.329E-03 (.197)	-2.057E-02 (.198)	-5.061E-02 (.200)	-8.576E-02 (.203)
TAXVALUE	-	1.47E-10*** (.000)	4.935E-11 (.000)	4.339E-11 (.000)	1.865E-11 (.000)	-6.126E-11 (.000)	-5.801E-11 (.000)	-6.523E-11 (.000)	-7.033E-11 (.000)
LANDAREA	-	-	2.629E-02*** (.007)	2.606E-02*** (.007)	2.595E-02*** (.007)	2.102E-02*** (.007)	2.114E-02*** (.007)	2.066E-02*** (.008)	2.091E-02*** (.008)
OWNHOME	-	-	-	-5.973E-03 (.007)	-1.804E-02*** (.008)	-1.674E-02* (.008)	-1.654E-02* (.008)	-1.258E-02 (.009)	-1.278E-02 (.009)
EDUCATN	-	-	-	-	2.363E-02*** (.009)	2.665E-02*** (.009)	2.452E-02*** (.010)	2.631E-02*** (.010)	2.603E-02*** (.010)
POPULATN	-	-	-	-	-	6.456E-06 (.000)	6.027E-06 (.000)	6.635E-06 (.000)	6.677E-06 (.000)
MSA	-	-	-	-	-	-	.183 (.277)	.199 (.277)	.167 (.279)
CRIMERT1	-	-	-	-	-	-	-	2.829E-05 (.000)	2.621E-05 (.000)
CSECLR1	-	-	-	-	-	-	-	-	-5.952E-03*** (.006)
Adjusted R^2	.015	.060	.113	.112	.136	.140	.138	.139	.139
N	236	236	236	236	236	236	236	236	236

Notes: Standard error in parenthesis
* Significant at .10
** Significant at .05
*** Significant at .01

General Fund OLS Standardized Coefficient Values for LOPEX$

Regression	Variables	Standardized Coefficients Beta
9	UNION	-.029
	TAXVALUE	-.110
	LANDAREA	.229
	OWNHOME	-.112
	EDUCATN	.219
	POPULATN	.196
	MSA	.041
	CRIMERT1	.075
	CSECLR1	-.061

variables. LANDAREA, EDUCATN, and CSECLR1 were the only control variables that retained significant t-statistics in the final, nine variable regression model. Further testing with other different variables would be necessary to determine whether or not these results are spurious or genuine.

The study then conducted multivariate regression for capital outlays using a different data set than the General Fund Data. The data set was that of the Total Memo values recorded by the Florida Department of Financial Services as the total amount spent by the city in a specific object class. The Total memo amounts include not only totals from the general funds but also include totals from all other funds such as grants-in-aid and special revenue funds. Under usual situations, unions would have little influence over these funds. This information not withstanding, multivariate regression was nonetheless performed with the Total Memo data. Results of the regression on Total Memo data, as expected, provided no evidence that unions had influence over capital outlay expenditures.

Variables within regression models interact with each other as well as with the intercept (constant) and the dependent variable. This interactive effect causes more than just the relative values of the dependent variable and the intercept to change as additional variables are added to the model. The interactive effect present in regressions occurs throughout the model so that even the relative values of the control and independent variables coefficients change as well. In the regressions portrayed by Table 15, the interactive effect of added control variables cause the coefficient values of the independent variable to degenerate since the independent variable's strength of influence is not substantial enough to exist amidst the influences of other variables within the model. This not only causes the independent variable's standardized coefficient (beta) to decrease, but it also causes the significance of the t-statistic to degrade. The result of this

effect upon the independent variable yields evidence that the independent variable, while it may have some relationship with the dependent variable, does not display significant causal value.

Since capital outlays are used to purchase expensive equipment such as computers and patrol vehicles, many communities have well defined purchasing policies and schedules to acquire this capital equipment. As discussed in the literature review, some Florida communities such as The City of Longwood have two year vehicle replacement policies while others such as The City of Orlando have a five year vehicle replacement policy. The regression results suggest that these policies appear to be less sensitive to union influence as compared to other expenditures such as staffing, salaries, supplies, and other less expensive equipment. Another possibility is that purchasing policies involving capital outlays are subject to union influence but only over a period of years rather than immediately apparent in a single fiscal year. Cross sectional studies such as this study would fail to capture evidence of that influence. Longitudinal studies are better suited to measure this type of influence over an extended period of time.

Based on cross sectional data, this study's regression analysis provides no supporting evidence to support the rationale or theory that unions impact police capital outlay expenditures in Florida. The independent variable of concern, UNION, failed to generate significant t-statistics in the final model, and the statistical (null) hypothesis can not be rejected in this model. The fourth and final model, using capital outlay expenditures as a dependent variable, offers no significant evidence that unions influence capital outlay expenditures in Florida municipalities.

Regression Results – Control Variables

Table 16 presents the results of each of the final significant models. In the presence of control variables, the independent variable of concern, UNION remained robust for three of the four models. However, the contribution of the control variables to the models in some cases far surpasses that of the independent variable. A log-lin model which states the dependent variable in logarithmic form and the independent/control variables in linear form presents some difficulty in interpretation. Generally the coefficient values are quite small in this model, especially if the values of the variables are very large. However, since heteroscedasticity necessitated the use of logarithmic form for the dependent variable, the models' format was inevitable. In the effort to simplify interpretation, however, the study endeavored to retain the independent/control variable data in their original, untransformed values.

TAXVALUE, which was understandably one of the strongest variables in the model, also displays the smallest coefficient values. This situation exists because the variable consists of data that uses the dollar as the absolute unit value. The variable represents the total assessed taxable value of a community. As noted in the discussion of the descriptive statistics, these values range up to over $15.6 billion in the taxable value of a community. While dichotomous variables such as UNION lend themselves to readily understandable percentages in semi-log models, large quantity continuous variables such as total taxable values are not readily appreciable. In the case of the UNION variable, an affirmative, or unitary value for this dichotomous variable in Model 1 indicates that the presence of unions generate up to 64.5% ($e^{.498} - 1$) of increased total police expenditures since the value of the coefficient in the model equals .498 (see Table 12). The same method of interpretation is slightly different of the large quantity continuous variables, and in the case of these variables, the absolute values vary much more than that of either the two values of

Table 16. The three surviving, significant models for police expenditures.

Cross Section Results for Police Expenditures Models

Independent Variables ↓	LTTLPOL$	LPER$	LOPEX$
INTERCEPT	13.502***	13.249***	11.885***
	(.439)	(.452)	(.484)
UNION	.498***	.550***	.296**
	(.104)	(.108)	(.115)
TAXVALUE	1.285E-10***	1.291E-10***	1.553E-10***
	(.000)	(.000)	(.000)
LANDAREA	1.344E-02***	1.278E-02***	1.809E-02***
	(.004)	(.004)	(.004)
OWNHOME	-1.999E-02***	-2.027E-02***	-2.103E-02***
	(.005)	(.005)	(.005)
EDUCATN	1.633E-02***	1.651E-02***	1.320E-02**
	(.005)	(.005)	(.005)
POPULATN	7.689E-06***	8.018E-06***	5.667E-06**
	(.000)	(.000)	(.000)
MSA	.608***	.632***	.522***
	(.138)	(.143)	(.153)
CRIMERT1	2.328E-05*	2.367E-05*	2.184E-05
	(.000)	(.000)	(.000)
CSECLR1	-7.856E-02***	-8.016E-03***	-6.512E-03**
	(.003)	(.003)	(.003)
Adjusted R^2	.723	.720	.663

Notes: Standard Errors in Parenthesis
* Significant at .10
** Significant at .05
*** Significant at .01

0 or 1 as it does in the UNION variable. As discussed, in the case of TAXVALUE, the absolute value is expressed in dollars. Thus for each single additional dollar of taxable property, the percentage change in the expenditures of the dependent variable is (in the same first model as the above example of UNION) 1.285E-10 percent, or the number 1285 proceeded by nine zeroes after a decimal point. While this may seem very small at first glance, when used in terms of total value, the change is very dramatic between cities such as Tampa with taxable values over $16.5 billion as compared to much smaller cities such as Greensboro with a total taxable value of $6.6 million or 1/2500 the taxable value of Tampa.

TAXVALUE is the second most influential variable in the first two models with standardized coefficients of .223 and .218 in Models 1 and 2 respectively (see inset tables to Tables 12 and 13). In the third model, TAXVALUE becomes the most influential variable, surpassing even the impact of POPULATN on the dependent variable. As the value of property increases in a municipality, the need for increased police protection escalates as well. Additional commercial property and residential property would require additional law enforcement services such as surveillance on the part of the police department. In addition, TAXVALUE represents the wherewithal of a municipality to fund law enforcement services. Two similarly sized cities in terms of populations may have differing tax bases upon which to finance law enforcement. Cities with relatively higher taxable value property levels have greater discretion in expenditures than similar sized cities with lower taxable values. Gely and Chandler (1993a: 300) used a per capita tax revenue based variable, TAXBASE, in a category they dubbed "ability to pay." The variable exhibited significant effects upon the dependent variables in the field of other control variables throughout Gely and Chandler's (1993a: 302) models. The present research, using similar rationale but a different data format, experienced similar results. The total taxable value of a

community is a major consideration in determining what levels of police expenditures are possible and desired.

An indication of the importance of TAXVALUE is evident in the relative adjusted R^2 values in the model before and after TAXVALUE is entered into the model. The adjusted R^2 values specify to what degree the combined influences of the variables in the model explains increases in the dependent variable. The R^2 values are "adjusted" to offset the tendency of the R^2 values to increase methodically as additional variables are entered. This adjustment results in a more accurate assessment of the model's explanatory value. R^2 values below 0.20 are considered weak, between .020 and 0.40 moderate, above 0.40 are considered strong, and above 0.65 are considered very strong (Berman, 2002: 122).

Between the first two regressions of Models 1 and 2, the adjusted R^2 more than doubles in value (from .244 and .253 to .597) with the entry of TAXVALUE. Between the first and second regressions in the third model, the adjusted R^2 more than triples in value (.170 to .545). The entry of the control variable TAXVALUE into the models elevates the adjusted R^2 values into the category of strong models.

The models indicate that total taxable property values become a more influential determinant than population in terms of the amounts spent on operating expenses. This suggests that either quantity and/or quality of equipment, services, and supplies increase proportionate to increases in total taxable property values in a community. In practical terms, a city with higher assessed property values apparently can and does purchase better weaponry or more weaponry, supplies and services for their police department than a similar sized city with lower assessed property values.

LANDAREA represents the size, in square miles, of the city. The rationale for use of this variable is the assumption that a larger geographical area would require additional resources to patrol greater distances than cities of a similar size population with a smaller geographical area. This control variable retains significant t-statistics throughout the models. Although the standardized coefficient for this variable ranks sixth in relative strength in the first two models, the same statistic increases dramatically in the third model as indicated in Tables 12 through 14. In the third model (police operating expenses), the standardized coefficient for LANDAREA rises in relative strength rankings of the nine independent/control variables from sixth to second place. This is consistent with the assumptions of the variable's role in the model. Greater distances within cities results in increased use of fuel and maintenance costs for patrol vehicles, which in turn raises police operating expenditures. Only the more influential control variable, TAXVALUE, displays a greater proportionate impact on police operating expenses than LANDAREA in the third model, which features operating expenses as the dependent variable. The LANDAREA variable has a regression coefficient of 1.809E-02 in the third model, which indicates that each additional 5 square miles causes a one percent increase in police operating expenses, with all other factors remaining constant.

OWNHOME, or percentage of owner occupied housing, emerges as the first of only two control variables in the models that manifest an inverse relationship with the dependent variables. Witt (1990: 171) encountered the same inverse relationship in his research and concluded that homeowners were more sensitive to property tax rates than renters and would attempt to reduce these taxes, which would be reflected in expenditure levels. While there is merit to this conclusion, this study believes that the inverse relationship may also be the result of proportionately lower crimes in areas of high home ownership. Perceptively lower levels of

crime would be accompanied by relative decreases in police expenditures. A study for the Orange County Sheriff's Office revealed that apartment complexes generate more than double the number of law enforcement calls for service than single family units which are predominantly owner occupied (Duncan Associates, 1998: 14).

Regression results suggest that as the OWNHOME percentages increase, police expenditures decrease. The alternate inverse relationship is true as well. As the percentage of owner occupied housing decreases, police expenditures increase. The higher law enforcement calls for service in rental communities require additional staffing, equipment, and supplies. Increased levels of expenditures are thus needed to provide proportionately greater levels of service to rental communities. The OWNHOME influence on police expenditures is substantial as evidenced by the high standardized coefficients in all three of the models. In models one and three, the standardized coefficient for OWNHOME ranks third in strength among the variables, while in the second model OWNHOME is fourth. Since the standardized coefficients for OWNHOME are fairly stable in relative values throughout the models, the variation in the standardized beta values for OWNHOME appears to be more as a result of greater changes in the other control variables rather than due to a phenomenon of the OWNHOME variable. Witt (1990: 171) found that his variable for the percentage of owner occupied housing was one of the two most influential variables that impacted police budgets. Witt, however, used a different combination of control variables in his models, and did not study the impact of unionization upon the dependent variables. These variations in model specification produced only a slight dissimilarity from the present study for the relative weight of the owner occupied housing in terms of standardized coefficients.

Although near the bottom of rankings among the standardized coefficients within the regressions, EDUCATN nonetheless displayed significant t-statistics throughout all four models. This observation suggests that education is a positive factor in municipal police expenditures. The greater the percentage of residents with a high school education in a municipality, the more likely that police expenditures will be higher in that community than in cities with fewer high school graduates. This study is not without outside corroborating evidence regarding the effect of education upon police expenditures. Chandler and Gely (1995: 301) linked the percentage of residents with a high school education in a community with the wages of police and firefighters. In their studies, a variable representing the level of education was found to be a statistically significant contributor to the level of police and firefighter wages.

POPULATN, the number of residents within a community, yields the most dramatic influence on the dependent variables in two of the three significant models. Only in the case of police operating expenses are other factors more influential than POPULATN in determining the levels of police expenditures. In the third model, POPULATN drops to fourth place after the control variables of TAXVALUE, LANDAREA, and OWNHOME. For total police expenditures and in personal services expenditures, POPULATN is unquestionably the most important factor determining financial outlays. An unstandardized coefficient of 7.689E-06 in the total police expenditures model can be interpreted to mean that each additional 10,000 people raise police department spending by more than 7.689%. over current levels, holding all other factors constant. Moreover, since the absolute value of the variable in expressed in the number of people, comparable present levels of police expenditures increase dramatically according to population. The more people in a community, the greater the need for law enforcement resources in that community.

Most of the empirical studies examining police expenditures included a variable to control for the effects of population. Numerous models using a population variable demonstrated statistical significance by the variable (Chandler & Gely, 1995: 314-316; Gely & Chandler, 1995: 181; Gely & Chandler, 1993a: 302; Witt, 1990: 169-170; Valletta, 1989: 435). The omission of such a variable would undoubtedly result in a serious specification error that would render the model biased, because a significantly relevant value to the regression would be embedded in the error term.

MSA is the second of two dichotomous variables in the model, UNION being the first. A unitary value for the MSA variable indicates that the community is within a Metropolitan Statistical Area of one type or another. A null value (0) for the value of the variable indicates that the municipality is not within a metropolitan statistical area of one type or another as designated by the Office of Management and Budget. The coefficient for the variable acts as a "value added" feature of the model which increases the value of the dependent variable if the community is within a metropolitan statistical area. A null value in the variable does not provide a value added amount to the model since the coefficient in this case is multiplied times zero, canceling out the coefficient's original value. While most of the referenced empirical studies in the literature did not use such a variable, this study utilized the MSA control to separate the expenditure effects of similar sized cities in different environments. The only similar variable used empirically in the literature was found in Feuille and Delaney (1986: 232) to control for the effects of urbanized areas on police salaries.

This study suggests that MSA may account for more than just the effect of urbanization on police salaries. "Spillover" effects from nearby cities in urbanized areas may require additional finances not needed by more isolated communities. These spillover effects include

factors such as increased traffic through cities included in the metropolitan statistical areas as a result of being adjacent to large "downtown" communities. Crime patterns borne of congested environs could possibly spread into adjoining areas, thus creating increased police expenditures to contain these undesirable characteristics. The response of increased police expenditures in these communities adjacent to or within urbanized areas may be based more upon the perceptions of the possibility of crime spreading than the actual experienced level of crime. Support for this observation springs from both the collinearity statistics and the Pearson's correlation coefficients expressed within the models. The collinearity statistics illustrated in Table 11 show very low values for the variance inflation factors related to MSA, which indicates that the variable's influence on the dependent variable are independent of other influences within the model. The results of the collinearity diagnostics are further supported by the very low correlation coefficients found in the Tables 6 through 9 for MSA and other variables. A very unique dynamism unrelated to other variables exists within the MSA variable.

In all three models, MSA remained statistically significant and similarly weighted in terms of standardized coefficients. In the field of the nine variables, one independent and eight control, MSA was fifth in overall influence on the dependent variable as compared to the other variables in all three models. In Models 1 and 2, the MSA results, with unstandardized coefficient values of .608 and .632 respectively, indicate that a Floridian municipality in a metropolitan statistical area will spend, on the average, at least an additional 83% ($e^{.608} - 1 =$ .83675) in total police and police personal services expenditures than a similar sized Floridian city that is more isolated from other urbanized areas. This influence remained strong for the police operating expenses model as well, with an MSA unstandardized coefficient of .522 in the final regression of Model 3. MSA was found to cause more than 68% ($e^{.522} - 1 = .68539$) higher

police operating expense expenditures in Floridian cities in highly urbanized areas compared to their more isolated counterparts. Although a strong relationship between a city's metropolitan statistical area category and expenditures was expected, the study's findings of a very high degree of impact of the MSA category on police expenditures were not expected.

Although statistically significant in all regressions save the last regression in Model 3, CRIMERTE1 ranked at the very bottom of the of the field of nine variables with respect to the comparative impacts on police expenditures as demonstrated by the standardized coefficient values. In Tables 12 through 14 between regressions 7 and 8, the contribution of explanatory ability to the models by CRIMERTE1 was the smallest of all the variables. This contribution, however is still positive and statistically significant. Although other studies (Witt, 1990: 169-170; Schwochau, Feuille, & Delaney, 1988: 426; Feuille & Delaney, 1986: 232) have also used variables representing crime rate, only the study by Witt (1990: 169-170) found comparatively large standardized coefficients for crime rate as well as unstandardized coefficients that were statistically significant. Witt used crime rate as a control variable in models for: percent (of resources) allocated to police in which the variable was 4th in rank of comparative weight for a field of 7 variables as determined by standardized coefficients; and in per capita expenditures for police in which crime rate was actually first in overall influence on the dependent variable, again in a field of 7 variables. These variations in findings are likely due to the selection of variables in the model. Nonetheless, crime rate does apparently have some bearing on the relative levels of police expenditures. However, at the present time, it is uncertain whether the influence of crime rate on police expenditures is continuous over time or rather due to comparatively large increases in crime rates which then result in crime rate becoming a political issue. The subject merits additional study in future research.

CSECLR1, another law enforcement factor control variable, represents the effectiveness of the municipality's police department given the existing resources at a certain point in time. In all three models, CSECLR1 displays significant t-statistics in the presence of eight other variables. Although the variable places eighth in terms of influence on the dependent variable as measured by standardized coefficients, the contributions of this variable to the models are positive and significant. The relationship of CSECLR1 with the dependent variable is an inverse relationship. As the number of cases cleared decline, expenditures rise. The variable measures the municipality's ability to control crime. The results of the models suggest that if the resources available to law enforcement are inadequate, or possibly the police department is not as effective as are those of other jurisdictions, more resources will be diverted to police expenditures to control crime.

The influence of CSECLR1 is slightly stronger in total police expenditures and police personal services expenditures than it is in police operating expenses. The unstandardized coefficients are -7.856E-03, -8.061E-03, and -6.512E-03 respectively in Models 1, 2, and 3. These results suggest that communities are sensitive to levels of staffing in situations where cases cleared either increase or decrease. Once it becomes apparent to a community that not as many cases of serious crime are being solved by police, the tendency may be to hire additional law enforcement officers to assist in apprehending felons in the community.

The control variables present in the models have substantially removed a large degree of bias from the models as evidenced by the declining unstandardized coefficient values expressed in the independent variable of concern for each variable entered, as evidenced by the large number of control variables in the models, and as emphasized by the significant t-statistics for the variables. Yet despite the number of control variables used in the model, the independent

variable of concern, UNION, retains a strong presence as a significant causal factor in the levels of police expenditures. Moreover, the independent variable's consistent significance in three different environs (total police expenditures, police personal service expenditures, and police operating expenses expenditures) provide very strong evidence that unionization of police departments dramatically affects resource allocations by local governments in Florida. These effects are not restricted to costs related to staffing and personnel alone but rather impact the day to day operations of police departments by increasing their annual operating expenses as well. The statistically supported evidence that unionization impacts more than one category of police expenditures has implications for local government in Florida. Although the effect of unionization on personnel costs should be emphasized since these costs are the most sensitive to police unionization, discussion of the fiscal effects of unionization on operating costs should also be made clear to public administrators involved in police employee labor relations management functions. Only with a more comprehensive understanding of the dynamics inherent in police expenditures can public administrators in local government labor relations better serve their constituent public through exercising fiscal responsibility by more knowledgeably controlling costs.

The Surviving Models

In Chapter III, four models were proposed that would satisfactorily control for a number of factors from three different variable dimensions, and demonstrate that employee voice (UNION) was a significant influence on police expenditures. Three of the models survived hypotheses testing and provided evidence that unionization impacts police expenditures. The fourth model, using capital outlays as the dependent variable, failed to provide such evidence.

The study's qualitative research will attempt to explain why the fourth model failed, and uncover more information regarding the three surviving models. Table 16 presents the results of the surviving models. Despite the large field of control variables, the independent variable representing union voice (UNION) remains significant.

The control variables (nearly all of which remained significant in the final models) accounted for many of the factors that impact police expenditures. The demographic dimension was represented by five variables (LANDAREA, OWNHOME, EDUCATN, POPULATN, and MSA) in the final models. Two demographic control variables (OVER65 and MAJRACE) failed to show a correlation with the dependent variables and thus were eliminated from the models. The finance dimension of control variables was represented by the TAXVALUE variable. Another variable proposed (MILLAGE) also failed to show correlation with the dependent variables and therefore was not used in the final models. The final dimension, law enforcement factors, was represented by two control variables (CRIMERT1 and CSECLR1) in the final models. The large field of control variables provides assurance that the independent variable of concern does not inherently contain unacceptable levels of bias through specification errors. The significance of the independent variable (UNION) within these types of model provides a compelling argument that employee voice, formalized by unionization, clearly is a force with which to be reckoned.

CHAPTER FIVE: QUALITATIVE PERSPECTIVES

Introduction

In order to better understand the quantitative results and provide insight into the findings of this study's research, various public administrators from seven different Florida municipalities were interviewed. The qualitative aspect of the study is by no means a comprehensive investigation, but rather was intended to augment the quantitative research and provide some understanding in an exploratory manner. The seven cities emerge from a much larger population of 257 cities, and the seven selected cities may not necessarily reflect the actions or issues associated with the much larger population of cities in Florida. Each city included in the qualitative portion of the study was selected as a result of certain defining characteristics of that city. These characteristics will be further described as the individual cities are discussed. Table 17 lists the criteria used as a guide in selecting the cities to be included in the qualitative study. In most cases the combination of characteristics, based on the selective criteria and other considerations, determined the cities included in the qualitative study.

In general terms, the cities selected for qualitative research presented a mix of regional areas within the state, a variety of population sizes, unionization status within the cities, in some cases demographic makeup, and other characteristics that might yield a more assorted sampling of municipalities. While qualitative research may not lend itself to control variables, an effort to vary sample elements will result in a more comprehensive understanding of the issues. A number of the factors that composed the control variables in the quantitative portion of the study would thus guide the qualitative portion of the study as well. The interview results would then emerge from a more diversified background that would tend to mitigate bias in the information.

Table 17. Selection Criteria for Qualitative Interview

- State Region
  - At least two cities each from: North Florida (North of State Road 40); Central Florida (Between State Road 40 and State Road 70); and South Florida (South of State Road 70).
- City Size
  - At least one city from Uniform Crime Report City Groups I and II
  - At least three cities from Uniform Crime Report City Groups III and IV
  - At least two cities from Uniform Crime Report City Groups V and VI
- Proximity to other Cities
  - At least three cities 30 miles or more from nearest city of 25,000+ population
  - At least three cities adjacent to cities with 25,000+ population
- Union Status
  - At least four unionized departments
    - At least three different unions, including the two largest police unions in the state, Police Benevolent Association and the Fraternal Order of Police
  - At least two non-unionized departments
- Income Inequality – Individuals Below Poverty Level
  - At least one city with at least 50% higher than national average (12.4%) percentage of individuals below poverty
  - At least one city with at least 50% lower than national average percentage of individuals below poverty
  - At least two cities between the 50% higher and lower than national average percentage of individuals below poverty
- Income Inequality - Per Capita Income
  - At least one city with 50% or more lower percentage per capita income than national average ($21,587) percentage of per capita income
  - At least one city with 25% to 50% lower per capita income than national average percentage of per capita income
  - At least two cities between 5% higher or 5% lower percentage per capita income than national average per capita income.
  - At least one city greater than 5% higher percentage per capita income than national average percentage of per capita income
- Ethnicity
  - At least one city with 25% greater than national average (67.6%) percentage of white residents
  - At least one city with 25% less than national average percentage of white residents

Table 17 (Continued). Selection Criteria for Qualitative Interview

- Percent Residents over 65 years of age
    - At least one city with 25% greater than national average (12.4%) percentage of residents over 65
    - At least one city with 25% less than national average percentage of residents over 65
- Crime Rate
    - At least one city with crime rate 25% below quantitative study sample mean crime rate (5884 per 100,000)
    - At least two cities with crime rates between 25% above quantitative study sample mean and 25% below sample mean
    - At least one city with crime rate 25% above quantitative study sample mean crime rate
- Cases Cleared
    - At least one city with 25% higher percentage of cases cleared than quantitative study mean percentage of cases cleared (26.33%)
    - At least two cities with percentages of cases cleared between 25% above and 25% below quantitative study mean percentage of cases cleared
    - At least one city with 25% lower percentage of cases cleared than quantitative study mean percentage of cases cleared
- Education
    - At least one city with 10% higher percentage of residents with high school education or more than the national average (80.4%) percentage
    - At least two cities with percentage of residents with high school education or more between 10% above national average percentage or 10% below national average percentage
    - At least one city with a 10% lower percentage of residents with high school education or more than the national average percentage
- Vehicle Replacement Policies
    - At least one city with vehicle replacement policy of 2-3 years
    - At least one city with vehicle replacement policy of 3-5 years
    - At least one city with vehicle replacement policy of more than 5 years

The selection criteria were intended to provide a variety of characteristics without relying too heavily upon outliers for supplying information. Although arbitrary, in most cases the chosen parameters for the criteria are close on either side of the mean to ensure that the qualitative results for the sample will resemble the population. For this reason, the most common spread of variation on either side of the mean for most factors was a 25% variation. For the same reason, an effort was made to also include samples that approximated the mean of the factors as well. A notable exception was for that of income inequality, which some researchers (Hsieh and Pugh, 1993) have identified as one of the single most important causal factors in determining the level of crime. Higher levels of crime would demand greater police services, and thus create higher police expenditures. National standardization of education requirements necessitated selection of a smaller range of variation for the education factor. In this case, a margin slightly more than 10% on either side of the national average was used to delineate categories.

One such characteristic that provides variety in interview results would be the type of union representing the bargaining unit within the city. Different labor organizations could conceivably have different philosophies, different policies, and different effects from unit to unit. An effort was made to secure interviews in cities with no unions and in cities with different types of unions. One city had two different police unions, one for each of the two sworn bargaining units.[35]

Feuille and Delaney (1986: 231) concluded that police salaries were higher in urban rather than rural areas. In this study, three cities were selected from highly rural areas and four were selected from heavily urbanized areas. Population was found to have a significant impact on expenditures in other studies (Gely & Chandler, 1993a: 301) as well as in the quantitative

[35] In Florida, the rank and file officers are deemed to be a different bargaining unit than lieutenants. Sergeants, depending on job descriptions and agreements, usually belong to one or the other units.

section of this study. The qualitative inquiry examined Florida cities with populations as small as 6,000 and as large as 195,000 with a metropolitan statistical area of over a million. Different size cities have different needs, and these needs are reflected in their expenditure levels. The impact of a union in a small city may be different than that of a large city.

Witt (1990: 170) had significant results with a variable representing residents of over 65 in his studies, and another demographic variable which represented the percentage of owner occupied homes. This study includes an interview of an official from one city that actually had less than the national average percentage of over 65 years of age residents, and also includes an official from a city with greater than the state average percentage of over 65 years of age residents. Although this variable did not achieve significance in this study's statistical regressions, the demographic was considered to include possible different perspectives in police expenditures. Both the quantitative portion of this study and Witt (1990: 171) experienced significant results from a variable representing the percentage of owner occupied homes. In order to capture this dimension in the qualitative study, one city was selected for interview which had a large (75.6%) proportionate amount of the city's housing that was owner-occupied. On the other end of the continuum, another city was selected which had a very small (40.8%) proportion of owner occupied homes.

Schwochau, Feuille, & Delaney (1988: 426) used a measure of income, per capita income, as a control in determining the effects of collective bargaining and arbitration on police expenditures. Florida, however, offers extremes not found in national samples. For this reason, this study used not only per capita income as a measure of wealth, it also used the percentage below poverty level for a community. Typically, in larger national samples, per capita income and the individuals below poverty level rise and fall in an inverse relationship. As demonstrated

Table 18: Demographic characteristics of cities in qualitative inquiry.

City	Population/ Uniform Crime Report City Group	Region/ Miles to Nearest City 25,000+	Police General Fund Expenditure per capita	% Individuals Below Poverty	Per Capita Income	% Owner Occupied Homes	% High School Grad or Higher	% Residents Over 65	% Non-Hispanic Whites	2001 Crime Rate per 100,000	% Cases Cleared, 2001	Tax Value per Capita	Type of Police Union: Officers/ Lieutenants
City One	14,000 V	Central Florida 0 Miles	203.82	6.6	$21,714	75.6	86.4	12.4	87.3	8028.19	56.56	$50,582.11	Teamsters Officers Only
City Two	6,000 VI	South Florida 40 Miles	201.49	32	$10,346	57.8	46.1	8.2	25.2	3965.49	25.94	$10,953.71	None
City Three	80,000 III	South Florida 0 Miles	389.87	18.9	$23,188	52	75.5	16	58.1	11608.25	13.9	$62,629.63	PBA & PBA
City Four	46,000 IV	North Florida 40 Miles	343.07	18.1	$18,021	57.2	79.1	20.4	72.9	9793.04	37.83	$47,384.26	FOP & FOP
City Five	96,000 III	North Florida 40 Miles	234.00	26.7	$16,779	47.7	87.8	9.8	68.4	6475.13	20.8	$28,252.73	FOP & PBA
City Number Six	42,000 IV	Central Florida 0 Miles	191.49	5.6	$23,216	41.8	89.8	10.7	79.2	5004.64	30.78	$50,096.41	None
City Number Seven	195,000 II	Central Florida 0 Miles	412.88	15.9	$21,216	40.8	82.2	11.3	61.1	11864.04	18.93	$64,385.63	FOP & FOP

in one of the cities of the qualitative portion of the study, this is not always the case in Florida. A large number of wealthy residents can be found living alongside residents below the poverty level. This may also affect police expenditures. Relative rates of income and poverty, as well as a variable used in the quantitative study, the taxable value of property, thus guide selection of interview candidates as well. As an example, a wealthier city in the qualitative portion of the study has the lowest (5.6%) rate of poverty, while an impoverished area has a sizable (32%) number of its residents living below the poverty level. The national average for the percentage of individuals below poverty level is 12.4% (U.S. Census Bureau, 2005).

Other considerations used in determining the mix of candidates to select for interview include the proportionate number of people with a high school or higher education, and the percentage of non-Hispanic whites. The demographics of education (Chandler & Gely, 1995: 301) and race (Gely and Chandler, 1995: 178) merit consideration because these characteristics attained significance in some studies. Often these two demographics are attendants of income inequality, and their independent effects should be included in research. Again, a broad spectrum of characteristics are available among Florida cities, and these characteristics have representation in the qualitative perspectives of this study.

The final characteristics that guide selection of interview candidates entail the level of crime rate and the ability of the community to control crime rate. Two variables from the quantitative portion of the study will guide our selection in this respect. One variable is the crime rate per 100,000 figure, and the other is the percentages of cases cleared. Both measures are used by the Florida Department of Law Enforcement and the Federal Bureau of Investigation. These factors may contribute to decisions on resource allocation within a community. In the regression analysis of this study, both variables were significant in the great majority of regressions amidst

a large field of other control variables. Evidence exists, at least in this study, that the two factors ultimately influence police expenditures.

The final cities selected were identified in a data matrix which consisted of the 257 cities from the quantitative sample. The overarching criteria for qualitative selection were: region of the state; city size; and whether or not the police department of the city was unionized. A minimum of two cities were to be located in each region, North, Central and South Florida. At least one city from each of the Uniform Crime Report city groups, with the exception of the largest group, were also to be included in the final sample. At least two of the cities were to be non-unionized, one a small city, and the other non-union city was to be medium sized. An effort was also made to include different types of police unions within the sample. Finally, a variation of demographic, financial, and law enforcement characteristics was sought within the sample to provide a blended sample of Florida cities. Table 18 presents the characteristics of the cities selected for the qualitative sample.

Interviewing officials from the selected cities should provide information to better understand the regression results. Personal observations by the officials may yield an understanding of not only why unions increase police expenditures, but also why the influence of unions is not perceptible in capital outlay expenditures. Since anonymity ensures more candid observations among interviewees, specific names of cities or the administrator interviewees will not be provided in this study. The cities will only be identified by their broad regional groupings and certain individual characteristics.[36]

[36] North Florida, for the purpose of this study, consists of all cities adjacent to or north of State Road 40 which begins at Ormond Beach just north of Daytona Beach, and travels westward across the Florida peninsula through Ocala and terminates just west of Inglis and Yankeetown near the Gulf Coast. South Florida, for the purpose of this study, includes all cities adjacent to or south of State Road 70 which begins in Fort Pierce, cuts across the state through Okeechobee and deadends close to the Gulf Coast near Bradenton. Central Florida includes the I-4 corridor between Daytona Beach and Tampa, and all points north of State Road 70 but south of State Road 40. At least two cities from each region will be represented in the limited qualitative study.

City One

Description

City One is located in Central Florida, and with a population of approximately 14,000, is included in the FBI Group V City class and thus serves as a representative from the small city category of this study. In 2002, the research year for the study, City One had nearly 40 officers on its payroll. The city also has an unusual vehicle replacement policy, a city manager very involved in designation of individual salaries to control costs, and uses a labor attorney in dealing with the police union. These defining characteristics will be described further in the ensuing discussion of the city.

Although the crime rate in City One may be higher than in many Florida cities of its class (36% above the mean for the sample), the cases cleared percentages are also quite high (115% above the mean), indicating that the city's police department has the resources to keep crime under control. The higher crime rate may be attributable in part to the fact that the city has a broad spectrum of income areas within the city, including low income areas usually associated with higher crime rates. In addition, the city is located near a much larger city with major roads through City One to the much larger city. Much of the city, however, boasts planned commercial areas and middle to upper middle class residential areas.

City One spends less than average (28%) on total police expenditures per capita, but this cost proportion may be the result of a relatively younger community with a large number of children. The city has moderate per capita taxable value, and a proportionately smaller group (12.4%) of senior citizens (over 65 years of age) than many Florida cities. The state average is 17.6% of its residents are over age 65. A somewhat unusual characteristic of the city is the fact

that the police department uses the International Brotherhood of Teamsters as a bargaining agent rather than the Fraternal Order of Police or the Police Benevolent Association as in most nearby communities with police unions. The Fraternal Order of Police and the Police Benevolent Association were formed at about the same time as the Teamsters union, and represent many more law enforcement officers in the United States. The Teamsters, as their name suggests were originally formed to represent those employed in the transport of goods. The Teamsters, however, have expanded into other occupations, and now include a Public Services Division, which includes law enforcement officers as well as other government employees.

Collective Bargaining in City One

City One has a unionized police force which unlike other cities in our sample, has the International Brotherhood of Teamsters as their bargaining agent. The interviewed official explained that since the fiscal year for City One begins October 1st, collective bargaining must begin at least 90 days but not more than 120 days before September 30th. The contract expires October 1st. Thus, collective bargaining in City One begins in June or July with a contractual provision that states that absent a written notification of the intent to negotiate during June or July, the agreement is renewed for another year without modification. This provision coincides with the policy of City One that collective bargaining will not include any retroactivity in contractual provisions. According to the City One official, this eliminates the need for reconciliation of the city's budget planning and the monetary impact of the collective bargaining agreement. If the negotiations are not completed by October 1st, the union, according to city policy, will not receive any consideration for increases in wages or benefits until the following year.

The interviewed official at City One specified three cardinal rules in that city that are followed in contractual negotiations with the police union: 1) Contracts are for one year so that unions become part of the budgeting process; 2) The final decision maker does not attend labor negotiations; 3) The police chief also does not attend his own department's labor negotiations. Partially as a result of the foregoing, the city uses a labor attorney to negotiate agreements with the police union. The labor attorney imparts some of the benefits of a disinterested third party to the proceedings by projecting an image of objectivity and low risk involvement. Since the police chief must often direct the employees in the performance of law enforcement services, the city excludes involvement by that official in negotiations to prevent animosity within the department. The official added that since the police chief works closely with the employees and could personally benefit from the negotiations because salary increases for the rank and file officers are usually accompanied by salary increases for supervisory officers. Thus, the policy of the chief's lack of involvement in labor negotiations precludes possible conflicts of interest or the appearance of conflict of interest.

The provisions related to operating expenses, such as equipment and uniforms are almost always negotiated exclusively during the collective bargaining period in City One. The Collective Bargaining Agreement has no provisions for labor-management meetings and contains no reference to memorandums of understanding. The interviewed official for City One noted that only in emergency situations would the city engage in negotiations outside the collective bargaining period, and then the only items discussed would be safety related.

The budget process in City One was also described. The department heads in City One, including the police chief, assemble estimates for the resources needed for the following fiscal year. These estimates are reviewed by other city officials and consolidated for eventual

presentation to the City Commission for approval. Estimates regarding personal services costs are based on existing contracts or modified before finalizing and submitting the proposed budget to the City Commission. The modifications to personal services expenditures are predicated on the results of local negotiations with the bargaining agents for the police union. Any adjustments to individual salaries are reviewed by the city manager before approval. All salaries for the rank and file officers in the police department, however, are determined by the collective bargaining agreement.

The City One official, during police labor negotiations, augments the city's position by presenting to union negotiators a detailed list that itemizes the cost required to place each law enforcement officer on the street. Although many of the items specified in the collective bargaining agreement would undoubtedly be provided to some extent with or without the agreement (such as uniforms), the operating expenses costs specific to each sworn employee equals more than $20, 000 in addition to payroll related costs. These costs do not include common use items and services such as grievance processing expenditures, designated parking places, showers and lockers, dues deduction processing, and other items specified by the collective bargaining agreement in City One. Such costs are often difficult to attribute to unionization alone, and therefore were not included in the estimates.

The expression of union voice often depends on the makeup of the bargaining unit members. The City One official interviewed suggested that police employees and other employees in local government often find a "fit" in a specific municipality. Each community has a unique set of values and characteristics that either may or may not be compatible with the employee's personality. For instance, a suburban community teeming with commercial retail property would expect their officers to have the diplomatic skills necessary to deal with visiting

customers in the city. A crime hardened community would expect their officers to have the "street smarts" to curb crime. As the employee performs his or her duties in the municipality over time, a decision ultimately results from the employee's experience in the local government to either remain in the community or move on. An officer may be more comfortable working with lower income citizens than dealing with high income citizens who may be used to more diplomatic and even gracious treatment from their officers. Although pay is a serious consideration on the part of the employee, according to the City One official, the ability of the employee to identify with the community is more likely a stronger determinant in the employee's decision to remain.

The official cautioned that the salaries and benefits have to be competitive, however, because an added incentive to remain in the community for employees is the realization that exiting the city will result in a pay cut by moving to a beginning pay grade. Loyalty to the community develops as a result of the interaction between the employee's "fit" with the city and the realization that compensation is comparable to other cities. The inherent characteristics of an employee play a large part in the employee's decision to remain in the employment of the city. The official opined that in City One, the human relations skills may be a more important asset for a law enforcement employee than actual crime control because of the demographic make-up of the city. Each city, with its own community values profile, beckons employees with the skills and personalities peculiar to that city's need. The City One official based this observation from over 20 years experience in public administration.

Police Union Impact in City One

The interviewed official for City One noted that provisions of the collective bargaining agreement in the city reveal a number of areas in which the police union has exerted voice in a manner that impacts police expenditures. Salaries and service bonuses are specified within the agreement, as well as stipulations for beneficiaries to receive accrued compensatory time in the event of an employee's death. Pay for court appearances or other legal processes resultant from performance of duties are discussed in the collective bargaining agreement and provide for additional pay as a result of these processes. The employees are provided paid time off for voting, and suffer no loss of pay while attending grievance discussions which are conducted during normal business hours. Other expenses related to salaries included in the provisions are the various types of leave, overtime, callback and standby provisions, and other situations of similar nature.

The City One official explained that the city experienced private sector spillover in bargaining with the Teamsters. Rather than use multi-stepped pay scales, according to the city official, the Teamsters prefer "single-salary" terms in national contracts in which an entry level employee with the same skills as a more senior employee earns the same basic rate of pay.[37] Modifications such as service-bonuses are often added as incentive for more senior employees to remain in their present jobs. City One utilizes service-bonuses, which according to the collective bargaining agreement are issued to police employees on a formula basis. At three years employment with the city, the employees are eligible to receive $100 per each service year in the city as a service bonus on the anniversary of their dates of hire. Most of the other provisions related to salaries, benefits and working conditions in the collective bargaining agreement are

[37] Most pay schedules that feature steps usually base the step level upon the length of time in the employment of the city.

similar to provisions existing in other cities' collective bargaining agreements that were negotiated by the more traditional bargaining agents for police employees, the Fraternal Order of Police and the Police Benevolent Association.

In addition to personal services expenditure items, the interviewed official noted that the collective bargaining agreement has detailed provisions for the number and types of equipment that are to be issued to each sworn employee. An equipment and clothing list specifies the materials that the employees will be issued, even specifying the exact number of ammunition rounds that the employee will receive. One provision of the agreement requires management to provide an operable portable radio to each bargaining unit member prior to beginning a tour of duty. Lockers and showers are provided for in the labor agreement as well. All these provisions are contractually required of the city, and relate to police operating expenses. Employee voice is thus codified in the contract through collective bargaining.

Other items and services are provided for as well, in accordance with the collective bargaining agreement. K-9 officers are permitted to annually attend training relevant to their assignments, officers are reimbursed for tuition, books and fees for job related educational courses, and City One pays for annual physical examinations by a designated physician. These types of items and services incur operating expenses as well.

When informed about this study's regression results for police capital outlays, the City One official noted that the city used a restricted interpretation of the state constitution for what constituted negotiable bargaining subjects. Moreover, a policy had been introduced by the city official a number of years ago to guide capital outlays budgeting within the city. This policy, which regards vehicles and computers, precludes discussion of capital outlays during negotiations because the local union appears to be content with the policy, and the city may not

be receptive to dealing with the issue as a bargaining subject related to wages, benefits, and working conditions. The capital outlays policy is based upon trade value for existing equipment such as computer hardware and patrol vehicles. Rather than restrict city operations with auctioneering requirements for used items in order to replace these items, the Number One City Commission has allowed the city officials to surplus high expense items in order to dispose of them.

Capital equipment that has reached the city's definition of maturation[38] is marketed to generate additional revenues that can assist in the purchase of other items. This policy also minimizes storage and logistical costs. Descriptions of the equipment are posted on web sites, and offered to employees and others at discount. The city specifies a two to three year replacement policy for police vehicles and these vehicles are advertised nationwide for sale to smaller or bargain hunting communities to purchase as relatively new vehicles. The two to three year specified period enhances the resale value over that of five year vehicles which may have a smaller and less lucrative market. Computers are accorded a three year lifespan with the city, and then replaced in a manner similar to that of vehicles.

City One has the most proactive vehicle replacement policy of the cities interviewed. While the other cities interviewed rely on a combination of factors that depend on the condition of the vehicle, City One factors in the ability to gain the most in resale value for the vehicle. The factors that render a vehicle replaceable for other cities also tend to lower the resale value of the vehicle. City One seeks to bypass this situation by selling the vehicles nationwide while the vehicles still have a desirable performance level. Cities with a capital outlays policy as with City One would experience minimal to negligible union influence on capital outlays decisions. Once set in motion, purchasing policies may be difficult to change, even at the bargaining table. In

[38] The capital equipment items most often marketed are police vehicles and computer equipment.

addition, if the policy is viewed a favorable by the union, as is the case in City One, there is little incentive to include the issue as a bargaining item. However, as illustrated by the example of City One, personal services and operating expenses are very much negotiable items, and the union's voice in determining these expenditures is considerable.

City Two

Description

Located in rural South Florida, City Two boasts a population of approximately 6,000 residents, a Group VI city according to Uniform Crime Report categories. In 2002, the research year of the study, City Two had approximately 20 full time officers. Consistent with the sample city definitions of the methodology chapter, City Two is categorized as a small city in this study. The city lies nearly 40 miles from the closest medium sized (25,000+ population) city. Extensive poverty plagues City Two, with nearly a third of its residents classified as below poverty levels by the U.S. Census Bureau. The average percentage of individuals below poverty in Florida is estimated to be 12.5%. City Two has 2.5 times that percentage below poverty. Per capita income in City Two is less than half of the state's average, which further compounds the city's plight. The percentage of residents with a high school education in City Two is only slightly more than half of the nation's average.

Unlike much of the rest of the state, City Two is not a haven for retired persons over 65 years of age. The city not only has less than half of the percentage of people over 65 than the state has, but also has a much lower percentage of citizens over 65 than the national average. White, non-Hispanic residents are substantially outnumbered by minorities, particularly by twice as many African-Americans. City Two spends less per capita on law enforcement than the

average Florida community with a police department. The restriction of resources results from the per capita taxable value of City Two being less than one-seventh of the average per capita taxable value of the 257 Florida cities sampled. Despite these limited resources, the police force in City Two is able to maintain moderate to high percentages of Part I cases cleared.

The unique characteristics posed by City Two for the study are the predominant number of residents from minority classes, its remote location, the prevailing impoverished conditions of the community, and the lower pay of a non-unionized police force.

Unionization and City Two

The City Two official interviewed reported that unionization of the city police force was discussed at one time but actually never occurred. The official stated that in his opinion, the city could not afford a union. According to the official's estimates on the salaries of unionized officers in nearby cities, City Two would have to increase the pay of its law enforcement officers by approximately $5,000 or at least 16% more than the current starting pay for law enforcement officers. This information appears to be corroborated when considering that the unionized City One, which is admittedly is in a more urbanized area, pays its starting officers nearly 24% more than does City Two.

The City Two official views unionization as a double edged sword for his community. While a union may offer some protection against capricious action on the part of elected officials or the public, the official argued that his 20 years of public service in other communities included experiences that suggest unionization makes it more difficult to correct or terminate recalcitrant employees. The official believed that such a situation is not in the best interest of the public because citizens expect a high degree of professionalism from its officers. Even the

manner which an officer was perceived to look upon a resident recently while issuing a traffic ticket to that resident elicited a complaint of racism.

As a smaller police force, according to the City Two official, the police chief is able to get personally involved with the members of his force. The chief is familiar with each officer and thus is able to sense when an officer may be getting disenchanted with the department. The police chief can then take remedial action to alleviate such a situation. In addition, the police chief has an open door policy and meets with the officers in a sort of "gripe session" to discuss common problems. These activities may develop a sense of loyalty within the officers by providing voice in an informal setting to identify and therefore solve problems.

The City Two official, however, admitted that there were drawbacks associated with the lower pay in non-unionized police forces. He cited the example that the employee with the greatest seniority on the police force had less than seven years with the department. Regarding the theory of the City One official believing that community "fit" and not compensation was the major determinant in whether or not an employee remains in the department, City Two official disagreed: "Not too many people are willing to put their life on the line day after day and put up with what these guys have to put up with for this type of salary. Would you? They move on to bigger and better opportunities and get paid better somewhere else. Often they have young families to support." The official cited a recent case in which an officer reluctantly resigned to accept a better paying position in another agency. In that case, the employee cited better wages as the reason for leaving, and that he stated he would not be leaving except for the fact that he had a young family to support. The City Two official strongly believed in a law enforcement career path in which officers began their careers in smaller, lower paying communities and later leave for increased compensation. He believed that most young officers applied to positions in

his community to "pack their résumés with experience." Since the resources of City Two are such that the "voice" of the employees is not able to increase wages, the employees accumulate experience for eventual exit to higher paying positions.

Police Expenditures in a Non-Unionized Department

When shown a list of union demanded equipment in City One, the City Two official indicated that the items listed were standard equipment for officers in Florida, and that the police department in City Two provided their officers with approximately the same equipment, save for footwear which the officers in the latter city were required to furnish themselves. In some cases, such as the number of ammunition rounds, City Two actually supplied more ammunition. Lockers and showers were also provided in City Two. However, rather than paying for annual physical examinations in a manner similar to City One, City Two suggests to their officers to get a physical examination every two years. No educational incentives were mentioned by the City Two official, and the nearest post secondary educational facilities were over 45 minutes away from the community. More importantly to operating expenses, City Two pays health insurance premiums for the employees, but not for the employees' spouses and dependents. The only other city in the qualitative sample that did not pay and health insurance premiums for dependents was City Six, which also had the only other non-unionized department in the sample. This observation further supports the findings uncovered by this study's regression analysis that unions impact policy and decision making in Florida municipalities.

When questioned regarding the lack of union influence in capital outlay expenditures, the official replied that economics more likely determines that type of policy in cities. Given the impoverished community, in the case of City Two, the squad cars are utilized "until they break

down." There is no set proactive vehicle replacement policy in the city. One vehicle still in use by police in City Two has over 135,000 miles registered on the odometer. The oldest vehicle was a 1999 model, more than six years old at the time of the interview. Although the city commissioners, according to the City Two official, are very responsive to the department's requests for equipment, the department is sensitive to the limited resources available to the city and therefore minimize capital outlay requests until absolutely required. Vehicle replacements and other capital outlays thus appear to be far more restricted in City Two as compared with City One. Vehicles deemed no longer fit to serve the community are auctioned off on an "as is" basis. Nearly all such vehicles have mileage in excess of 100,000 miles. Replacement vehicles are purchased new. In City Two, the voice of the individual employee is negligible with regards to vehicle replacement.

As in City One, the department heads in City Two calculate the estimated costs of running their departments and submit these estimates to the city manager for review and eventual submission to the City Two City Commission. The budget is calculated in total, which includes personal services and capital outlays. As discussed earlier, however, capital outlays may be incurred during the year if vehicles break down and can no longer provide useful service to the community. The budget process is thus a modified "bottoms-up" method, with the departments supplying their estimates for the fiscal budget of the following year.

Although the budget process in both cities may be similar, discretionary spending for the two cities appears to be significantly different. Both cities are similarly sized in terms of land area, but the population of City One is slightly more than twice the size of City Two. Partially as a result of smaller size, but also partially as a result of prevailing conditions, City Two uses proportionately greater staffing (in ratios of officers to 1000 residents) than does City One.

Despite this situation, City One still spends $12,000 more per year per police officer than does City Two. As demonstrated in Table 18 in the summary discussion of this chapter, as the cities become larger, the difference in expenditures between union and non union cities becomes far more dramatic.

City Three

Description

Guidelines of the Uniform Crime Report classify City Three as a Group III city with a population in excess of 80,000. Under this study's classification scheme, City Three would thus be considered a medium sized city, although it would be approaching the large city category. In the year of the regression analysis (2002), City Three had approximately 270 full time officers employed by its police department. City Three is located in South Florida and is located in the highly urbanized area that sprawls between West Palm Beach and Miami. In contrast to City Two, City Three is surrounded by, or rather directly adjacent to, a number of other cities that form its borders. No farmlands, state reserves, or wild areas define any of the boundaries of City Three. Crime rate in City Three is considerably higher than any of the cities (97% higher than the sample mean), save the largest city, in the qualitative sample, which is typical of the cities in the West Palm to Miami crescent. The crime rate is more than double the average for the state.

The percent of cases cleared for City Three, again consistent with the West Palm Beach to Miami crescent, is considerably lower (13.9% versus 26.33%) than the state average of the sample. The per capita income is higher than that of the national average while paradoxically the percentage of individuals below the poverty level is also higher than the national average. These indexes serve to demonstrate the extremes in income inequality for residents of City Three, again

a factor common to the cities in the West Palm Beach to Miami crescent. The very rich reside in a community that has a disproportionate number of people living below the poverty level. Research (Hsieh & Pugh, 1993) has indicated that such a combination may contribute to comparably higher levels of crime.

Other demographic descriptions of the city indicate that the community has close to the state average for the over 65 age group, and the percentage of residents with a high school education level of education is approximately the same as for the state. The percentage of residents owning their own home is lower (52%) than that of the average for the quantitative sample of the state (69.39%), which partially explains the 36% higher rate than state average of expenditures per capita for police expenditures. The regression results of this study support existing evidence that lower rates of home ownership tend to correlate with higher police expenditures. City Three spends 36% more per capita (approximately $100) than the average per capita police expenditures for the 257 cities in the sample.

The unique characteristics of City Three that caused it to be selected for the qualitative portion of this study are: the city is representative of the West Palm Beach to Miami crescent area; income inequality of the residents; high police expenditures; and a medium city in a highly urbanized area.

Collective Bargaining in City Three

The Police Benevolent Association represents the two bargaining units of sworn police officers in City Three. The first bargaining unit includes the rank and file officers, the positions of police sergeant, and all other employees in the classifications of Crime Scene Investigator and Police Aide. The city has dealt with this bargaining agent for over 25 years. The second

bargaining unit represented by the Police Benevolent Association, represents all sworn officers holding the rank of Lieutenant, but excluding Police Lieutenant/Budget Officer and Police Lieutenant/Internal Affairs Officer. The Lieutenant bargaining unit has been organized by the Police Benevolent Association for slightly over 15 years.

When asked about labor-management partnerships or employee participation programs in City Three, the official replied that such devices, although they have merit in some organizations, are not conducive to law enforcement policy-making for communities, particularly in the case of union involvement: "Once you allow them (the Union) to be part of the policy making process, you have to continue allowing them to be part of the policy making process." The City Three official believed that union participation in police policy making was tantamount to an abrogation of management rights in an area sensitive to both management and the public. However, the official also believed that in some areas of concern, such as in discipline procedures, the union gains voice through the grievance procedures and often cite other jurisdictions' policies with respect to discipline. Ultimately, the official emphasized, police policy making is best left to the elected officials and management officials in the community and not entrusted to the union.

Union influence on the City Three fiscal budget is largely indirect, that is, through the terms of the collective bargaining agreement. The interviewed official explained that a fiscal services function within the department assembles budget estimates each year and submits a budget package to the City Three finance department which then reviews the estimates and combines the budget requests with that of other city departments and submits the entire package to the City Three City Commission.

The City Three interviewed official explained that the budget process is essentially separated from the collective bargaining process in respect to timing considerations. Although the collective bargaining agreement is effective beginning October 1st, coinciding with the effective date of the city's fiscal year, the agreement may not have been finalized until a few months later, as in the case of the current contract. The current contract, which technically begins October 1st, 2004 and ends September 30, 2007, was actually finalized (signed by the appropriate officials) in December of 2004. The official emphasized that usually there are no retroactivity provisions pertinent to changes in employee salaries. The effective dates of the new salary schedules are specified by the contract and can begin 3 to 6 months into the contract. The effective changed salary schedules of the current contract signed in December, 2004 were January 1, 2005, three months into the fiscal year.

Similar to City One, City Three uses an attorney as the main negotiator with the union, with two officers from the police department serving as technical advisors on the negotiating team. The City Three official stated that the police chief is not directly involved in the negotiations. The final signatories representing the city of the collective bargaining agreement are the mayor, the city administrator, and the employee relations manager. Mid-contract year changes to the collective bargaining agreement, which are relatively rare, are not remedied by memorandums of understanding in City Three. A provision does exist in the contract allowing either party to request a meeting to negotiate any changes not covered by the agreement, however, the City Three official explained that the contract has to be amended and be subjected to the ratification process. The collective bargaining provision allowing either party to negotiate

changes not covered during the term of the contract in City Three was shared only by City Four of the other cities in the qualitative study.[39]

Police Union Impact in City Three

The City Three official interviewed stated that relations with the city's police union have been fairly positive, with occasional disagreements. The official added that cases appealed to arbitration were somewhat rare, and that most disputes were settled locally. Grievances were sometimes, in the official's opinion, "petty" and may have contributed to added expenditures for the department. The official illustrated this conclusion with an example of a K-9 trainer who, due to death of the animal, was without a police dog. In the effort to conserve expenditures, an attempt was made to transfer K-9 training to the Sheriff's office and reassign the employee. A section within the collective bargaining agreement, however, stipulated that "One employee with the proper certification shall be assigned by the Police Chief as a K-9 Trainer…" Both the city and the union were bound by the provision, according to the City Three official, regardless of whether or not the provision entailed greater expenditures for the city. The matter was partially resolved by reassigning the employee but continuing to pay the employee the 5% premium pay for the position. Employee voice, as formally represented by the union had a clear presence in the disposition of the K-9 trainer case. Without union presence the department would have made a unilateral decision regarding the assignment of the K-9 training officer. The effect of voice in this case was readily perceived in not only the outcome of the decision, but also in the impact on police expenditures.

[39] Such provisions are often referred to as "opener clauses" in the labor relations field and generally apply to one or more items, usually wages (Carrell & Heavrin, 2004: 426).

The interviewed official believed that the vehicle take home policy increased expenditures for the city as a result of less usage for individual vehicles. Prior to the take home policy, which was encouraged by the union, the vehicles were operated by more than one shift, maximizing the utility value of the vehicle and resulting in less total cost. Another provision in the contract calls for each patrol vehicle being thoroughly cleaned, both interior and exterior, each week. The collective bargaining agreement also contained provisions that specified that an officer did not have to drive a vehicle more than six years old or one that has more than 120,000 miles unless refurbished. The City Three official, however, did not believe that these vehicle clauses unnecessarily encumbered the city, however, because in all likelihood the vehicles would be replaced in those conditions. The city uses a combined factors decision model to replace vehicles. A combination of age, mileage, and repair history determines replacement decisions. Replacement status for each vehicle is determined separately according to this combined factors decision model.

Another union initiated contractual provision, according to City Three official was a cleaning allowance granted to sworn officers. The uniformed police officers were provided $700 annually per uniformed officer, and $900 annually for non-uniform officers in the bargaining unit. Although uniforms are standard issue in all departments, shoes are often included in police labor contracts and City Three provides an eighty dollar per year allowance for shoes. Other provisions, related to police operating expenses, require that the city provides each officer with a two-way portable radio for use when not in the patrol vehicle. Although the portable radios are specified in the contract, the City Three official stated that such equipment would have been standard issue without a labor agreement. However, the contractual provision in the collective

bargaining agreement (the result of voice) provides little or no managerial flexibility in this regard.

City Three had the most complex schedule of medical examinations contractually required of all the cities interviewed. All City Three sworn employees are provided annual physical examinations that are required to be conducted during duty hours. Initially, the physical examinations are typical for the general populace. After age 35, however, the physical examinations for sworn employees become more extensive and much more sophisticated, including colon cancer screening, lumbar evaluation, stress echo cardiograms, etc. All these medical examinations are performed at no expense to the employee. The only other cities in the qualitative sample that funded comprehensive medical exams were unionized cities.

The City Three official believed that the pay incentives of unionized departments were the most responsible for increased expenditures. Using a ten stepped payroll schedule, starting officers begin with salaries of slightly less than $40,000. A topped out officer (step 10) in City Three earns over $61,000. The official also reported that educational incentives are also available to sworn officers. City Three provides educational reimbursement for job related courses according to the rate schedule of a nearby university and an additional allowance of up to $250 for books, materials and fees for each fiscal year. An employee leaving the employment of the city within two years of an educational reimbursement must repay the city for higher education reimbursements.

City Four

Description

Located in North Florida, approximately 46,000 residents inhabit City Four. The Uniform Crime Report classifies the community as a Group IV sized city, which is then categorized as a "medium class" city for the purpose of this study. Over 150 officers staffed the police department of City Four in the year of the quantitative study. The bucolic surroundings of City Four include large agricultural areas and even larger forested areas. The nearest city even comparable in size is more than 35 miles away. As might be expected of a city of this size in a rural area, the percentage of cases cleared in City Four is much higher (43%) than that of the state average because there are little "spillover" effects from nearby cities. In addition, a stronger sense of community may develop in a city that is not part of a large urbanized area which includes many cities. The city occupies a large land area, and population density is less than half of the municipal average for the state.

City Four has an over 65 population greater than any of the cities in the study's qualitative sample, and outdistances even that of the state average in the percentage of residents over 65 age category (20.4% versus 17.6%). As a haven for retired individuals, the city has nearly twice the percentage of over 65 residents than many of the 257 cities included in the quantitative sample. This statistic affects the per capita income of City Four, causing that figure to be lower than both the national and state average per capita income, because many over 65 years of age residents are retired and receiving pension and social security funds that annually average less than full salaried households.

Demographic diversification in City Four approximates that of the rest of the state, with the exception that the percentage of Hispanic population (5.7%) in the city is much lower than

the central and southern part of the state. The percentage of Hispanic population in City Four is actually less than half of the national average (12.5%). African American citizens comprise the largest minority group in City Four, with a little more than one-fifth of the city's residents heralding from that ethnic group. The unique characteristics that caused City Four to be included in this study's qualitative section are: the city is a medium sized municipality situated in a rural area; the large over 65 population; a demographic profile typical of North Florida; and a large land area with a relatively low population density.

Collective Bargaining in City Four

The Fraternal Order of Police represents two bargaining units in City Four police collective bargaining: 1) police officers; and 2) police lieutenants and sergeants. The City Four interviewed official stated that the officers have been unionized since 1990, but the lieutenants and sergeants unionized just recently in 2004. Only the fire and police departments are unionized in the city. The official related that the Teamsters union had previously attempted to pressure the city into unionizing other employees but was never able to achieve certification through employee elections. The City Four official recalled that the Teamsters Union conducted informational picketing in front of city hall to gain bargaining recognition.

Up to and including the present collective bargaining agreement, the city used negotiating teams to represent its interests at the bargaining table. The City Four official had been a member of that team for the past three contracts. The city manager also participates in the talks as a member of the city team. In the past, the city manager, the interviewed official, and one or more city officials would constitute the negotiating team. Present plans, however, are to utilize a labor attorney in future negotiations with the union. The interview official stated that the philosophy of

dealing with the employees was based on an effort to achieve a balance between the good of the officers and the good of the department. An attempt has to be made to be fair to everyone. However, if there is an irresolvable difference in this balance, the good of the department must prevail over the good of the officers. The official added that this often means standing firm on managing the department.

The city agreed in the collective bargaining agreement to allow the Fraternal Order of Police, according to the interviewed official, to establish a time pool for conducting union negotiations. The bargaining unit employees may donate annual leave hours to the time pool for union representation. A union representative may also use the time pool to attend public budget hearings pertaining to the department, and impasse hearings submitted to the city council. The city also agreed to allow three police employees to attend collective bargaining sessions while on duty.

The official stated that the Fraternal Order of Police does not actively engage in multilateral bargaining, and that the council leaves negotiation responsibilities to the department. Although the Fraternal Order of Police has endorsed city political candidates in the past, it usually does not endorse candidates and it never has extensively backed candidates. The city council also takes a laissez faire approach toward the unions and for the most part entrusts labor negotiations to the city manager and the city negotiating team.

Collective bargaining begins with notification of intent to negotiate by the union, usually in March. Although the fiscal year begins October 1st, budget planning begins even earlier in the year. When questioned about how the city reconciles negotiated salary increases with fiscal year budgets when preparation periods for both occur simultaneously, the official responded that the city has fairly accurate estimates regarding the prospective salary increases and formulates the

budget based on these projections. Usually, the police department budget request is submitted to the mayor during the month of March.

The police department, according to the City Four official, has a financial services section that compiles and submits budget estimates to the central budget office in the middle of January. The bureau commanders communicate with the police chief to defend and justify their respective sections of the budget. The entire "back and forth" process between the city departments and the city manager is usually completed in July, and the budget is finalized in August. Once the budget is set, the departments, including the police department, are held to a line item budget and expenditures are issued strictly according to object and classification. City finance officers can and do block cross item transfers, and such deviations from the line item specifications only rarely are allowed. This process, the official said, ensures accountability within the city and its departments.

Police Union Impact in City Four

The interviewed official commented that he did not think the Fraternal Order of Police impacted police expenditures dramatically in the city. He pointed out that many of the provisions in the contract would have been in effect whether or not the union was present in the community. The official opined that the union merely contractually formalized many items already in existence to maintain the security of the provisions. The union, according to the official, initialized minimum staffing requirements but the department schedules in a manner that achieves such standards anyway, so the impact on expenditures for these requirements are minimal.

The official stated that he had not seen departmental operations suffer as a result of unionization. Although sometimes, according to the official, "we do have our streaks" in the processing of grievances. Most disputes have been resolved at the lowest possible levels, and the City Four official reported that only one or two grievance cases in the last 10 years required arbitration. The grievance procedures, as stipulated by the collective bargaining agreement, entail five steps beginning with the employee's immediate supervisor and culminating, if necessary at step five with the police chief. If the dispute involves an immediate supervisor, the employee skips to the next step. Unresolved disputes at step five can be appealed to arbitration. Although the grievance procedure varies in intensity of use in City Four, the "streaks" of grievance activity require negotiations, research, and administrative time which contribute to the increase in both personal services expenditures and operating expenses. In non-unionized City Two such time is not required in such situations, and little additional expenses are experienced as a result.

The beginning pay grade for an officer in City Four is lower in comparison to most of the cities in the qualitative sample, and the maximum achievable salary is not as competitive with medium and large sized agencies. However, the maximum achievable salary is very competitive with the smaller municipal police departments. The City Four official reported that the department has lost sworn employees to the local county sheriff's office in the past because the county pays its officers more and had a vehicle take home policy when City Four did not.. The official added that retention rates in the city's police department was noticeably better than in smaller communities which tend to attract what the official called "gypsy officers" with a history of transiency.

The official stated that the real dilemma experienced by the city was similar to that experienced in other cities, and that is the trend to move in the direction of seeking better

educated officers. The dilemma exists because cities are finding it difficult to attract better educated officers with rates of pay that are not commensurate with the desired level of education. The city does offer an educational reimbursement program which is somewhat conservative to similar incentives offered by other departments in this study. The city reimburses employees tuition and fees up to an annual maximum of $500. This stipulation is included in the collective bargaining agreement.

Other reimbursement provisions in the collective bargaining agreement include cleaning costs prorated at $6 weekly, payable quarterly. Departmental detectives receive $600 annually for purchase of clothing "to be worn in the performance of their duties" in accordance with a contractual provision stated in the collective bargaining agreement. There are no provisions related to medical examinations required of the employer.

According to the City Four official, the union has not raised any issues related to vehicles or equipment. The official said that in the 26 years he had been associated with the city, the department always seemed to have state of the art equipment that was well maintained. He elaborated the point by stating that the patrol vehicles are equipped with lap top computers, and the department has its own resident MIS (management information systems) employee. These considerations plus a responsive vehicle replacement policy, the official believes, is responsible for mitigating union concerns with regards to capital equipment. The official further explained that city fleet services maintained the equipment and that any troublesome equipment is earmarked for replacement when repairs or general condition warrant such action. As long as the vehicles are operational at fleet services' standards, they will be utilized. When vehicle replacement is needed, the city utilizes the state's piggyback contractual purchase arrangement previously discussed in Chapter III. The department also uses an amortization replacement

scheme, referred to as a “bill back,” which accumulates funds for vehicle replacement. A predetermined amount from the general fund is designated for the “bill-back” account each year. This produces less strain on the city budget than if vehicles were purchased without incremental additions to the “bill back” account. An annual $250,000 is also allocated to the department for capital outlays other than vehicles.

The department is required to utilize the city’s purchasing process to acquire capital equipment, but this step is largely procedural for administrative and accounting purposes. The city had secured a management rights clause for the vehicle utilization provision in the collective bargaining agreement. The clause merely states that “The availability of, and employee eligibility for all conditions associated with Police Department vehicles are at the discretion of the Chief of Police.” The City Four official notes that the department has a take home vehicle policy because “The vehicles actually last longer in a take home policy. The officers take better care of the vehicles.” Shift sharing of vehicles had resulted in a detached concern for the vehicles that usually resulted in relatively less care. Assigning vehicles to individual officers created a sense of ownership that heightened the officers’ responsiveness to the condition of the equipment, and resulted in a sense of urgency in maintaining the vehicles. This view is decidedly different than that of City Three, in which the interviewed official noted that a take home policy resulted in higher costs.

City Five

Description

Somewhat removed from other medium and larger cities in the state, City Five enjoys moderate growth in North Florida. Classified as a Uniform Crime Report Group III city, City

Five is included in the "medium city" category of this study. But only just barely. With over 96,000 residents, City Five is at the cusp of being labeled a major city large enough to be considered in the Uniform Crime Report's Group II category. Approximately 240 officers staff the police department of City Five. The sprawl and growth of Central and South Florida has not yet reached City Five, so farmlands and forests surround the city similar in fashion to City Four and in a manner typical of most North Florida cities.

In stark contrast to City Four, City Five is a youth inhabited city with an over 65 population (9.8%) not only lower than the state average (17.6%), but also notably lower than the national average (12.4%). However, as with City Four, some demographic vestiges of the South remain strong in City Five. A large African-American minority population (23.2%) dwells in the city alongside a very small number of Hispanic residents (6.4%). City Five has nearly twice the national percentage rate of African-American residents, and just half of the national percentage rate for resident people of Hispanic background. This proportional ethnic mix appears typical to North Florida cities, and differs from the perceptible Latino influence on demographics in Central and South Florida..

The education level of residents in City Five (87.8% with high school or greater education) is higher than the average for the state (79%). As with three other North Florida cities, City Five hosts a large university that contributes to the higher level of education. The university also is responsible for reducing the proportionate number of owner-occupied dwellings in the city (47.7% total owner occupied). Atypical of cities with a relatively small number of owner-occupied homes, City Five has only a slightly higher rate of crime (10% higher than average), and close to state average for percentage of cases cleared. This anomaly results in City Five

having per capita police expenditures 18.3% lower than the average for the 257 cities of the study's sample.

The unique characteristics of City Five that resulted in its inclusion in the qualitative study are: the relatively high level of education in the city; the low number of owner-occupied housing yet low per-capita police expenditures; the influence of a major university; and the presence of two different major unions representing the two bargaining units in the police department. The majority of unionized police departments have a single union that represents both police bargaining units in a single police department. City Five deviates from this commonality by having two separate unions in a single police department.

Collective Bargaining in City Five

City Five bargains with both the Police Benevolent Association and the Fraternal Order of Police. The Police Benevolent Association acts as bargaining agent for employees holding the positions of Police Lieutenant, Sergeant/Training Officer and Sergeant/Personnel Officer. The Fraternal Order of Police represents the bargaining unit which consists of Police Sergeants, Police Corporals, and Police Officers. Collective Bargaining Agreements with both organizations are for three years each, the two contractual periods are not concurrent but are overlapping, and the labor contract with the Police Benevolent Association has an effective date one year later than the contract with the Fraternal Order of Police.

The City Five interviewed official noted that recently the International Brotherhood of Teamsters sought to replace the Fraternal Order of Police as the collective bargaining agent in the department. Members petitioned the Public Employee Relations Commission of Florida to conduct an election to determine the bargaining agent for the officers unit. The Fraternal Order

of Police prevailed in that election and continues to represent the police officers' unit in City Five.

The collective bargaining process in City Five begins in April or May, and the contract period begins with the fiscal year, October 1st for both bargaining units. The City Five Official reported that the collective bargaining sessions with the Fraternal Order of Police had not been concluded for the year, even after eleven months of negotiations. This, according to the official, was unusual. Collective bargaining usually is concluded after four months or so with the Fraternal Order of Police. Typically the process is quicker with the Police Benevolent Association, which represents a smaller workforce. The city has eight different bargaining units and offers standardized benefits to the bargaining units, including the police units. "The key issue is pay in most cases," the City Five Official observed. The official serves on the city negotiating team, along with the city's labor relations manager.

The City Five official interviewed shares the same concerns as the City Seven official interviewed regarding recent negotiations with the Fraternal Order of Police. Both officials acknowledged that in the past, labor negotiations proceeded much more rapidly than are current bargaining sessions. In both cases, the collective bargaining agreements have expired and the finalization date of the agreement was still uncertain at the time of the interview. In both cases, the primary issue was the issue of wages.

The City Five interviewed official expressed concern that at least one of the unions, when engaged in negotiations, regularly attempted what some labor analyst refer to as the "cherry-picking" approach in their wage and benefits package requests. In this approach, the union will review collective bargaining agreements throughout an area, usually within a single state, and highlight desirable clauses for eventual inclusion in their own demands. "They take the best

pieces from different agreements and want to present them together as a single offer," the official said. Also, by making interjurisdictional comparisons, the official believed, the union negotiators "cast their plan in the best possible light" during contract negotiations.

The City Five Official stated that memorandums of understanding are "not a common occurrence." A rare instance may arise in which both the department/city and the union would benefit from a policy change or a new program and then such a memorandum would be utilized, but such a situation would be very unusual. Periodically, however, the City Five Police Chief will consult the unions for their input on something major, such as pursuit policies, but these inputs are advisory in nature and not binding on the administration. There have been instances in which the union suggested including the new policy in the contract, but these suggestions have not been implemented due to an administrative preference of retaining managerial rights in matters sensitive to the public.

Labor-Management relations, the official reported, are usually quite positive between the department and the unions. Usually, only one or two grievances per year at the most are filed by the union. Arbitration, which is contractually provided, has not been invoked by either party for the past five years. The official attributed the low grievance activity to the attempt to resolve matters locally and the use of a unique disciplinary procedure in the department. Referred to as the "REDII Process," (acronym for Request for Expedited Disposition of Internal Investigation), the procedure is used in any discipline case that would not result in demotion or termination. Ready Process offers a lesser discipline in exchange for an officer admitting to an infraction. Examples of situations subject to the process are those involving missed court dates or complaints of rudeness.

Police Union Impact in City Five

A notable goal of the union, according to the City Five Official, is the issue of longevity. Prior to 1992, the city applied a premium known as longevity pay to police employees. This was a percentage-computed addition to regular base pay which relied on years of city employment. The city uses a pay-range system, with minimum, mid-point and maximum bands of wages rather than a multi-step schedule. Annual merit increases are added to each officer's base rate within the ranges. Longevity pay was calculated using the officer's base pay and the number of city service years. This premium still applies to employees hired before 1992, when the longevity clause was still in effect. Between 10 to 15 years of service, employees earn an additional 3% of base pay; between 15 to 20 years, 4%: between 20 to 25 years, 5% of base pay; and in excess of 25 years, the employee earns an additional 6% of base pay. In 1992, the premium was discontinued by the city. The interviewed official said that "longevity would be expensive to start up again" for all police employees, so the city has not been receptive to union requests to reinstate the premium to the collective bargaining agreement.

Cost-of-living adjustments (COLA) are an ongoing feature of the collective bargaining agreement and are usually retroactive to the effective beginning date of the contract upon ratification by the members, according to the official. The previous contract was finalized in November, a month after the expiration date of the contract, and specified a retroactive pay adjustment effective the first full pay period in October. In a similar vein, the City Five Official stated that although the city is not contractually obligated to continue merit increases, in all probability the increases will continue to be issued despite expiration of the collective bargaining agreement. This is a different approach than that of City Seven which has discontinued a shoe allowance to its officers as a result of a lapsed contract. City Five will in all probability grant the

merit increases in the expectations of the collective bargaining agreement eventually being ratified. The respective values of these merit increases had been mutually set by the signatories of the previous collective bargaining agreement.

City Five has included a number of items in its collective bargaining agreement that is standard to police contracts in Florida. Among these provisions are clothes cleaning allowances ($535 annually), tuition reimbursement for higher education, and a vehicle take home policy. These costs are reflected in departmental operating expenses. The vehicle take home policy was amended in 1998 to exclude law enforcement employees not living within the city. The interviewed official held the belief that take home vehicles were better maintained by the employees than were the pool vehicles, or vehicles shared by a number of employees. The official stated that the life cycle of a take home vehicle was about 8 years whereas a pool vehicle had only a two to three year life span. The official admitted that the initial costs of take home policies were expensive because many more vehicles were involved under the take home policy. In City Five, the official estimated, 240 marked vehicles would be used in a take home policy while between 50 to 60 pool vehicles would be required. However, the much shorter life-span of pool vehicles justifies a take home policy. The Fleet Management Department determines the replacement schedule based on a number of factors, especially the consideration that if maintenance costs become too excessive, the vehicle will be replaced. This usually results is marked vehicles lasting eight years and the department's "non-pursuit vehicles" lasting ten to eleven years. As with many communities, City Five "piggybacks" with the Florida Sheriff vehicle bid process in which law enforcement vehicles are purchased in the aggregate for state and local agencies at lower purchase costs. The official believed that the collective bargaining

agreement does not address vehicle replacement policies because of sound Fleet Management policies of vehicle replacement.

Regarding other capital outlays, the official explained that funding comes from two sources for the department. Some technological innovations for the department are financed through a federal law enforcement contraband forfeiture trust fund, in which the department may purchase equipment under federal guidelines based on confiscated contraband from criminal activity. This fund has accumulated substantial worth, up to $5 million, over a period of time. Moreover, the fund is protected by federal guidelines which prohibit supplanting city general fund allocations to the department with contraband fund proceeds. Florida cities that have confiscated contraband usually maintain such a fund. The contraband fund is to be used for law enforcement expenditures in addition to the normal budget allocations provided by local governments. In addition to this contraband fund, the bureaus share a pool of $250,000 annually in discretionary funds above the base allocated items of such things as normal personal services expenditures and normal operating expenses. Included in the discretionary fund purchases would be such items as furniture, and other large purchase items. Fiscal control over such items is maintained though a requirement that purchase items of more than $2,000 in value must be approved at the departmental level. The official believed the unions had little interest and little influence over such purchases. This observation produced additional support for the regression findings of Chapter IV.

The interviewed official explained that a fiscal division within one of City Five's police bureaus prepares budget estimates for the central city budget office. Both the city manager and the city budget office review the budget requests and submit the budget to a seven member city commission for legislative approval. City Five has converted to a biennial budget cycle, which

reduces the annual stress of the budgeting process. When asked about reconciling mid-year changes in the budget as a result of finalized collective bargaining provisions, the official responded that the city budget office was experienced in anticipating these changes and including an adjustment for the changes in their budget estimations.

City Six

Description

With over 42,000 residents, City Six ranks as a Uniform Crime Report Group IV city, which places it in the "medium" city category for this study. City Six employs over 100 full time officers in its police department. Located in Central Florida, the city combines with other adjacent communities to form a much larger, highly urbanized metropolitan statistical area. Several main thoroughfares bisect City Six and connect the community to a much larger city within easy commuting distance. Although largely residential, City Six contains a very large commercial district that draws residents from a number of nearby communities. The city also includes numerous office complexes and a large regional medical facility. The subsequent activity in the city's business areas causes a continuous flow of traffic that results in a steady background of sounds heard throughout the entire city. Other than parking lots, no large, open expanses of land can be found in City Six. The city's urbanized appearance is augmented by the fact that adjacent cities complete encircle City Six without any clear definitions of boundary lines.

Demographically, City Six approximates the national average in terms of ethnic group percentages. The city has a higher percentage (15.9%) than the national average of Hispanic residents (12.5%), which is characteristic of Central Florida. Also, the percentage of White

ethnicity (79.2%) is a bit higher than the national average (75.1%), and the percentage of African-American residents (9.7%) is a bit lower than the national average 12.3%), but in neither case is there a dramatic difference. A singular feature of City Six is the relative level of income for its residents. The city boasts a per capita income that is 7.5% higher than the national average, and has a smaller proportionate number (7.4%) of people living below the poverty level than the national average (12.4%). The level of education is also slightly higher than the national average.

The crime rate in City Six is 15% below average for the 257 cities of the regression analysis, and the percentage of cases cleared is above the average for the 257 cities in the quantitative portion of the study. The characteristics that suggest City Six as a candidate for the qualitative analysis in this study are: the city's higher than average capita income; small number of people living below the poverty level; and the observation that City Six is one of the few police departments with 100 or more officers in either Central or South Florida without a unionized police force.

Unionization and City Six

The interviewed official reported that approximately eleven years ago City Six police officers used the Fraternal Order of Police as a bargaining agent. However, a protracted bargaining session that failed to produce an agreement with the city after many months of negotiations caused the majority of sworn law enforcement employees to become disenchanted with the union. This situation eventually resulted in decertification of the union in an employee election. According to the City Six official, "The city operates on the assumption that we have a union" in determining wages, benefits, and working conditions. Such an assumption provides the

incentive to treat employees in a similar manner as their unionized counterparts in order to keep the city union-free. The police wages are higher in City Six than in most cities in the surrounding area, and the sworn employees have the opportunity to attain an average 4.6% of base pay merit increase annually.

Pay and benefits are not the only issue in the city's proactive efforts to keep the union at bay. The labor relations philosophy in City Six, according to the interviewed official is basically to "treat people good." City Six has codified its unionization policy in a document available to all city employees and posted on a web site. In the document, City Six itemizes its opposition to unionization in the city departments. One of the items listed as a point of concern is the observation that unionization creates an adversarial relationship between the city and the employees. The City Six official recalled an incident which involved a dispute about monetary issues between a highly unionized department and the city. The city's dispute with the unionized department contributed to the decision to contract the functions of that department out to County government control.

The city's "Policy on Unionism" further emphasizes that "…it is the city's sincere belief that unions do not work to the benefit of our employees." According to the city's policy on unionism, the employees would no longer enjoy the access to higher level management as a result of unionization because a labor organization would supplant present employer-employee relationships with the more formal exclusive labor-management representation of a bargaining agent. Moreover, the document argues, unionism "…does not guarantee that any employee will receive better benefits or terms of employment." The interviewed official noted that the nearby county fire department, which was unionized, went for years without a contract because the negotiating parties were unable to agree on terms. However, City Six uses other measures as well

to discourage unionization in the departments, including offering voice to employees through various opportunities for employee participation in departmental affairs.

Employee participation occurs on several levels in the City Six Police Department. In addition to maintaining an open door policy, the Police Chief has made it a practice to meet personally with each departmental employee, sworn or unsworn, at least once each year. Moreover, the employees have an opportunity to express their views in the organization structure through a number of formal boards which affect police operations within City Six. The Policy Review Committee, composed of line officers and mid-management, serves as an advisory body that provides input to upper management decision making processes.

Another example of employee involvement is a Discipline Advisory Board which renders opinion for consideration by the Chief of Police regarding the appropriateness and extent of proposed discipline to be issued to police officers. The Discipline Advisory Board consists entirely of rank and file employees, or peers of the disciplined employees. In its capacity as a reviewing agency, the Disciplinary Review Board is entitled to pertinent documentation regarding each case, and has access to a Lieutenant from the Internal Affairs who answers any questions pertaining to the case. After deliberating on the assembled information, the Disciplinary Review Board renders a statement of opinion which declares whether or not they agree with the proposed discipline. This opinion or recommendation is submitted to the Police Chief for final consideration and judgment.

Membership in the Police Benevolent Association or the Fraternal Order of Police is not restricted to bargaining unit representation. A fraternal aspect available to all law enforcement employees is representation in disciplinary matters. Through this aspect, police employee organizations have some influence, however limited, in City Six. The interviewed official

cautioned that while it was only a guess, he would estimate that a small percentage, maybe around 5% of the employees, utilized the labor representation benefits of either the Police Benevolent Association or the Fraternal Order of Police in disciplinary matters.

In addition to the one-on-one meetings with the Chief, the open door policy, and the various participatory boards and committees, the employees may also express their opinions to upper management at periodic "all-hands" meetings. The City Six official suggested that in consideration of the wage and benefits packages offered by the city, and the manner in which the department is managed, the union really has little to offer the employees. With present policies, employees have direct influence on the organization whereas with a union, these relations would be funneled through a small group of union representatives. The interviewed official believes that the employees may not want to relinquish this influence.

Police Expenditures in a Non-Unionized Department

The per capita police expenditures for City Six are far below the state average of the 257 cities tested in regression analysis. Moreover, compared to the cities comprising the qualitative sample, City Six had the lowest per capita police expenditures and the lowest millage rate. Yet, according to the City Six official interviewed, the city offers the highest salaries for police officers in the county and in much of the surrounding area. City Six is competitive in a number of other areas as well, the interviewed official explains. Tuition reimbursement for up to $1300 is available to the employees, as are some of the more traditional insurance benefits. Although the city does not use a stepped salary schedule, annual performance merit raises have averaged at about 4.6% in the recent year. All employees with a discipline free year qualify for such raises. Every two years, for a six year period, a career track incentive plan allows officers to participate in a promotional test that could net the successful applicants 7½% every two years. The

promotional process in the career track consists of three tiers: Police Officer 1st Class; Senior Patrol Officer; and Master Patrol Officer. Other amenities comparable to unionized departments were also available, such as take home vehicles.

Within the last several years, City Six implemented an "assigned vehicle program," or take-home vehicle plan. Pool vehicles, in which a vehicle is utilized by more than one shift, would have a serviceable life of two years in the city, according to the interviewed official. The assigned vehicle program doubled the serviceable life of the police vehicles as a result of less daily usage and also because officers tended to take better care of the vehicles assigned to them. A 30 mile limit applies to the take home policy, and officers living in the city are not charged for fuel. Replacement decisions for vehicles, as in most Florida municipalities are determined by a city fleet services department. Also consistent with other Florida municipalities, in City Six, vehicle replacement decisions are usually based on a combination of factors, including mileage, repair record and age of vehicle. Additional vehicles requests for the police department must originate in the department and is often justified by impact fees that are acquired from new development. Such requests are separate from the annual budget process.

City Six outfits its officers with quality equipment and state of the art technology as well. Tasers, for instance, are shunned by some departments but are issued to officers in City Six, as are the standard fare of computers, radios, and other electronic devices. Even the raingear selected as standard issue is top of the line and pricy, Gore-Tex® products. The low per capita expenditures in City Six can not be attributed to the utilization of lower grade equipment.

With the exception of pre-employment screening, medical examinations are not a requirement, and therefore not an expenditure, for officers employed by the City Six Police Department. However, the department does utilize a mandatory wellness program in which all

sworn personnel, including the Police Chief, must qualify every six months in a fitness assessment test. Failure to qualify in the program, the interviewed official explained, could and has resulted in discipline of officers. The wellness program, which began in 1988, was challenged in court by a Fraternal Order of Police attorney representing a law enforcement employee. The court upheld the rationale for requiring participation in the program and also upheld the program itself. As an added incentive for physical fitness, the department awards additional leave (up to two days per test) in response to positive performances in the wellness program.

Another creative measure that was intended to encourage employee involvement and provide support for the officers in City Six, is a budget "wish list" which the employees can (in writing) suggest types, grades, and amount of equipment and/or supplies needed for the performance of their duties. Wish list items, after discussion and consideration are incorporated into the budget requests at the divisional or bureau level. Each employee has the opportunity to influence budget decisions through the budget wish list procedure. The initial budget process begins at the divisional and bureau levels, in which needs for the upcoming year are assessed and monetized. Even before the process begins, however, the central budget office of the city informs the department of the allowable percentage increases over the previous fiscal year. This information provides a guide to the city departments in the initial budget requests. The initial estimates are submitted to the department's budget manager who then compiles these estimates into a unified document. The budget estimates then is submitted by the budget manager to the department's command staff (Chief, Deputy Chiefs, and Bureau Commanders) which then scrutinizes and adjusts the budget document, if necessary. Upon finalization of the budget review by the command staff, the document is submitted to the city manager who usually makes the

final recommendations and submits the budget to the legislative body. The City Six official stated that the police budget never had been refused by the legislative body during the current city manager's term and the budget rarely was turned back by the city manager.

The interview of the City Six official offers evidence that a factor or factors other than merely wages and benefits are responsible for higher expenditures in unionized cities. As discussed, City Six had the highest police wages in their county yet exhibited per capita police expenditures far lower than that of unionized departments. Many of the benefits offered by City Six compared favorably to those of other cities. However, benefits specified by City Six do include health insurance cost containment. According to the interviewed official, the city pays 100% of health insurance for employees, but does not pay for health insurance premiums for the employees' dependents. The interviewed official reported that the health insurance extension plan for a spouse and two children costs the employee $1,000 per month. All of the unionized cities in the qualitative inquiry pay at least part of dependent health care coverage. City One pays 55% of health care insurance coverage for dependents, City Three pays 75% of health insurance coverage for dependents, and City Seven pays 73% of dependent health insurance coverage.

The City Six official admitted, as did other officials in the qualitative inquiry, that turnover was a concern in the department: "Everything is so fluid here." In a situation similar to City Four, the City Six official noted that the majority of officers leaving the department for other law enforcement agencies usually moved on to nearby sheriff's offices. Otherwise, the official said, the city was able to compete favorably with all cities in Central Florida except for the central city in the metropolitan statistical area, and another medium sized city.

The interviewed official stated that, in his opinion, union presence in police departments restricts managerial flexibility. Such a restriction may impose limits on fiscal creativity which, in turn might result in increased expenditures. As implied in City Six's "Policy on Unionism," the structured and adversarial relationship between unions and city departments may not benefit either the city or the employee in terms of labor relations related costs. None of the other cities' officials interviewed reported that their cities had a policy even remotely similar to that of City Six. However, most of the unionized cities had indicated that their expectations of police salaries differed considerably than those of their union counterparts. Two of the five unionized cities interviewed were unable to arrive at an agreement as a result of wage issues.

City Seven

Description

Current population estimates place City Seven in the study's large city category with a total of nearly 195,000 residents. 670 full time officers staff the police department of City Seven. Located in Central Florida, City Seven lies in the I-4 corridor of Florida and forms the center of a large standard metropolitan statistical area that includes nearly 2 million people. Consistent with the patterns of large cities in Florida, crime rate is relatively high in City Seven, with Uniform Crime Report Part I crimes in excess of 11,000 in fiscal year 2002. Also consistent with large Florida cities, cases cleared in City Seven are relatively low, showing percentages of less than three quarters of the average cases cleared rate for municipalities in Florida. Continued growth in City Seven provides additional resources to fund proportionately high per capita police expenditures, with total taxable property value currently in excess of $12 billion.

Demographically, City Seven has a very diverse population, with: 61% of the population being non-Hispanic white; nearly 27% African American; and the fastest growing segment of the population, Hispanic residents, presently at 17.5%. The education level is higher than average for the state, and City Seven has the lowest percentage of citizens over 65 years of age than any of the large cities in the peninsular part of the state.

The city has a much lower than average home ownership rate (40.8% versus 69.39%), which corresponds with the much higher than sample average (44% more) per capita police expenditures experienced in the community. Per capita income is approximately the same as that of the state and the nation averages, but the percentage of individuals below poverty level are several percentage points greater than both the state and national averages. The unique characteristics that included City Seven in the qualitative portion of this study are: the city is the center of a metropolitan statistical area; population diversity of the city; the relatively large tax base (taxable value of property); relatively high per capita police expenditures; the education level of the resident population; and big city crime rates.

Collective Bargaining in City Seven

The Fraternal Order of Police (FOP) acts as the bargaining agent for the officers and sergeants employed by City Seven. The city had begun its association with the Fraternal Order of Police in 1977 when the first collective bargaining agreement was written. The City Seven interviewed official had been associated with the police department for 23 years and was a contract-signatory member of the negotiating team for the city.

The union in City Seven meets quarterly with department management, according to the interviewed official. These meetings are informal and primarily for the exchange of ideas and

opinions. The union also has the right of review for policy changes, but is limited to expressing concern through feedback. The union has no right of veto over policy changes. City Seven official reports that the Police Chief regularly consults with the union regarding imminent policy changes to "get buy-in by the union on these policy changes." The union is often invited to sit in on police board meetings to apprise the union of current events and situations affecting the department. One example cited by the official was the change in pursuit policy enacted by the city. The union was invited to provide input to the policy change.

The city official stated that memorandums of understanding have not been utilized in the city's police department labor relations for the past 12 years because they were considered inappropriate by union members. Since memorandums of understanding require only agreement between department officials and union officials, no ratification of the agreement was possible by the rank and file union members. As a result, accusations of "back door deals" between union and management arose. Eventually memorandums of understanding were discontinued altogether.

Contract negotiations, according to the City Seven official, must begin with a written notice to begin negotiations not less than 90 days or more than 120 days before the expiration of a current contract. With the exception of the present contract negotiations, the official stated that in the last 17 years, no collective bargaining required more than four months to resolve. In addition, the city would be unlikely to approve a retroactive compensation package in cases such as those presently confronting the department in which the contract had not been resolved at the time of the interview. As with most communities in Florida, the fiscal year begins October 1st in City Seven. Collective bargaining in City Seven shares a similar fate as labor negotiations in City Five. In both cities, the primary issue is wages.

Teams of negotiators on both sides forge the collective bargaining agreement in City Seven. Employee relations specialists from a labor bureau, along with an officer acting as the police chief's liaison form management's negotiating team. A host of union officers, some of which act in an ex-officio capacity such as the president of the local Fraternal Order of Police Lodge, staff the union negotiating team. At the time of the interview, union relations with the mayor's office had degenerated, and constructive communications between the union and the mayor had been suspended. At time of the interview, the local lodge of the Fraternal Order of Police was preparing a recall petition for the city electorate regarding the mayoral office. Prior to the rift, the mayor had an open door policy with the union.

Each division within the police department prepares their own budgets, and the bureau commanders submit these budgets to the police chief who then reviews and discusses the budget requests with the bureau commanders. The divisional budgets are then combined by the chief's office and submitted to the city's central budget office. The central budget office reviews the police budget and consults with the police department if necessary to resolve financial issues. Each city department, including the police department, has the right of appeal should the central budget office disallow portions of the budget requests. Once the budget preparation process has been finalized, the budget with all the component sections is submitted by the central budget office to the city council for legislative approval.

Police Union Impact in City Seven

City Seven no longer funds regular medical examinations for its police employees. The interviewed official explained that the required annual physical examinations were creating liability issues for the city. Privacy issues regarding health information standards as defined by

the Health Insurance and Accountability Act of 1996 (HIPPA), were associated with the required annual physical examinations and raised questions related to the extent of health information to which the city was entitled access. As a result of lawsuits, the city therefore terminated the required annual medical examinations of its officers. This contrasts sharply with the situation in City Three in which medical examinations are required of all law enforcement employees and the complexity of these examinations dramatically escalate as the employee ages.

The City Seven official stated that the Fraternal Order of Police had performed a number of services beneficial to its members in the city. Standardization of discipline procedures was one such benefit. Before the union was certified in the city, discipline of officers was not always consistent or equitable. Officers had experienced different types of discipline for the same infraction, and a perception of unfairness among the officers resulted. The unions provided voice that enforced due process in the discipline procedure. However, this resulted in administrative processing time related to processing grievances and maintaining dialogue with the union.

Another service provided by the union that was beneficial to the officers, according to the official, was compensation issues. The city uses an 11 step pay schedule for its officers. 10 years are required to reach the top of the pay scale for an officer. City Seven ranks among the better paid law enforcement agencies in Florida, the official noted. As a result, the city has a decided advantage in recruiting new officers. There are a limited number of quality recruits available for law enforcement positions throughout the state, and the very competitive starting pay and benefits in City Seven ensures that the city will continue to attract such applicants. The official added that a number of communities index their officer starting pay to that of City Seven. He added that many aspiring officers would establish themselves in smaller departments in the area and beyond with the hopes of eventually getting hired by City Seven.

The interviewed official also stated that the union can operate to the detriment of City Seven. The presence of a union creates difficulty in changing discipline procedures. The nature of the occupation requires that the city be sensitive to domestic violence and DUI (driving under the influence) incidents among its employees. The union can and does by virtue of the collective bargaining agreement exercise its duty of fair representation to mitigate discipline resulting from these and other types of behavior that cause concern for the city. The city is thus required to incrementalize changes on certain policies rather than make sweeping changes where necessary. Otherwise, arguments of past practice would tend to defeat drastic changes. This situation often requires more time and effort to resolve issues. In contrast, past practice is not a viable impediment in non-unionized cities such as City Two and City Six.

Although the union officials draw from a Union Business Pool Time to process union business, the time required by management personnel in responding to the union's concerns incurs additional expense for the city. The Union Business Pool Time refers to an arrangement in which union members can donate time from their accrued annual personal leave or compensatory time to a Union Business Pool Time which designated union officers can use to conduct union business and still get paid. Other administrative costs, such as a requirement of the city to reproduce the collective bargaining agreement for all covered employees also incur additional expense.

The City Seven official pointed out that when the department "costs out" (calculates estimates of costs for) the negotiated items of the collective bargaining agreement and provides copies of these calculations to the union, the union rarely challenges the estimates, which include roll-up costs. Roll-up costs refer to management contributions to benefit programs that require

percentage of wage calculations such as social security, pension plans, and life insurance. Other roll-up costs include holiday pay, and supplemental pay such as overtime.

In addition to salary and benefits, other items such as educational reimbursements (up to $1500 annually), and court attendance costs (two and one half hour minimum pay) were union initiated collective bargaining issues. City Seven does not, according to the interviewed official, provide cleaning allowance. Two years after the union was certified in City Seven, shoe allowances began in the department as a result of union negotiations. Each officer received $135 annually for shoe allowance. With lapse of the recent contract, the city has discontinued shoe allowance, arguing that the contract had expired and the city was no longer required to provide the allowance. City Five, on the other hand has continued many of the provisions in the expired collective bargaining agreement. The union in City Seven reacted with an objection to the city's unilateral discontinuance of a previously negotiated item. Whether or not the union prevails in this situation, their objection requires time and preparation on the part of management to resolve, which is an example of union voice impacting police expenditures even though it fails to achieve its objective.

The union in City Seven also mandates certain types of training such as twice yearly firearm training, and 100 rounds of ammunition per month for firearm practice. The official pointed out that the officers rarely use those provisions. Other types of training have been negotiated in the past, such as water rescue training for the lakes and retention ponds in the city, but these types of training, the official explained, have since been abandoned by the city as unjustifiable expenditures for the city. The city has made a "good faith" commitment to the union to provide driver training to the officers. In comparison to the other cities in the sample, all

of which were considerably smaller, City Seven seemed to experience the most union attention on training. The only exception was City Three and the issue of K-9 training.

The Fraternal Order of Police voiced concerns regarding a safety issue, the City Seven official reports, that may ultimately prove quite costly to the city. The union had asked for and received an air standards quality test of the police headquarters. Results of the test were not good for the 30 year old building. Asbestos had been removed at least once from the building, and remodeling has occurred a number of times in sections of the building. As a result, the city currently is taking steps to correct the situation, possibly even constructing a new police headquarters building. The official also said that similar requests regarding safety issues had been made in the past by the union, such as a safety study of the Crown Victoria patrol vehicles. Although the patrol vehicle study did not require outlays for equipment, costs were incurred for the study itself. Another incident involved a union demand for the city to show safe working conditions in an area which experienced intermittent radio coverage by a repeater tower that serviced portable radios for the officers. The city was able to demonstrate that the coverage was adequate in that case.

The City Seven official, commenting on the union's lack of influence on capital outlays, doubted that union members would find the issue of vehicle replacement of great importance, given the department's vehicle replacement policy. Vehicles are amortized over a five year period and replaced according to a formula that includes consideration of repair history, mileage, and age of vehicle. There had been a brief period of concern for the union in a situation that requires the department to provide law enforcement services to a local regional authority facility. The regional authority was responsible for providing the vehicles and the department was responsible for providing the officers. The vehicles had accumulated, in some cases, mileage in

Table 19 Comparison of selected characteristics of cities in the qualitative inquiry.

City	Type of Police Union: Officers/ Lieutenants	Contract Status at Time of Interview	Negotiators For Management	Memorandums of Understanding	Grievance Resolution	Opener Clause: Either Party can reopen Negotiations During Life of Contract	Police Expenditures Per Officer	Tax Value per Capita	Vehicle Replacement Policy	Cleaning Allowance	Full Medical Exams	Tuition Reimbursement	Employer Paid Health Insurance Premiums Employee/ Dependents
City One	Teamsters, Officers Only	In Force	City Attorney	No	2 Steps, Arbitration	No	75,888	50,582	2-3 Year Maximum Vehicle Life	Yes	Yes	Yes	Yes/ Yes
City Two	None	NA	No Collective Bargaining	NA	Informal	NA	64,456	10,953	When Beyond Repair	No	No	No	Yes/ No
City Three	PBA/PBA	In Force	City Attorney	No	4 Steps, Arbitration	Yes	124,444	62,629	Combined Factors: Age, Mileage, Repair History	Yes	Yes	Yes	Yes/ Yes
City Four	FOP/FOP	In Force	City Team, City Attorney Planned	No	5 Steps, Arbitration	Yes	105,239	47,384	Combined Factors: Age, Mileage, Repair History	Yes	No	Yes	Yes/ Yes
City Five	FOP/PBA	Expired (FOP) In Force (PBA)	City Team	Yes - Rare	REDII/ 3 Steps Arbitration	No	95,590	28,252	Combined Factors: Age, Mileage, Repair History	Yes	Yes	Yes	Yes/ Yes
City Six	None	NA	No Collective Bargaining	NA	Disciplinary Review Board, & Informal	NA	81,041	50,096	Combined Factors: Age, Mileage, Repair History	Yes	No	Yes	Yes/ No
City Seven	FOP/FOP	Expired	City Team	No	4 Steps, Arbitration	No	120,226	64,385	Combined Factors: Age, Mileage, Repair History	Yes	No	Yes	Yes/ Yes

excess of 150,000. However, the situation has been resolved with the regional authority replacing the vehicles. No real capital outlays concerns have been expressed by the police unions with regards to city equipment.

Discussion

The foregoing qualitative research provides some explanation to the manner in which additional costs are incurred by unionized police departments. Often the additional costs are subtle and not readily perceived. The administrative time required to process grievances and process even routine union requests add to the burden of managerial personnel in terms of both time and effort. This is especially evidenced by the negotiation team structuring and preparations in the case of the interviewed unionized cities. The costs of labor or city attorneys and their staff are reflected in operating expenses, and thus are clearly some of the expenditures incurred as a result of unionization. Many economists believe that unions exert a negative impact on resource allocation and economic efficiency (Kaufman, 2004: 378). Much of this negative impact is the result of voice influencing the allocation of resources to resolve disputes.

The concept of "double-deck bargaining" or multilateral bargaining did not receive much supporting evidence of a noticeable existence among the officials interviewed. The City Four official stated that there was not much lobbying-type activity of the city council by the Fraternal Order of Police in that city. None of the cities in the inquiry expressed an affirmative answer when questioned about the possibility of police union multilateral bargaining. The City One official recalled of an incident of firefighters in a nearby city engaging in possible multilateral bargaining, but reported that the police union in his city did not engage in such practices to his

knowledge. The City Seven official noted that the police union was engaged in political activity in opposition to the current mayor, but that there was little interaction between the police union and the city commissioners.

Settlements of contractual disputes usually encumber management in a different manner than labor. Should management prevail and labor lose (or concedes) in a contractual dispute, the resultant cost usually is not borne in a monetary fashion by labor. However, usually when management loses and labor prevails in a contractual dispute, management often experiences a monetary setback. Moreover, realizing the impact on departmental operations, management will often compromise in disputes that result in a monetary settlement. One example of this situation is the case of City Three and K-9 training assignment. The interviewed official in City Three realized that by using the K-9 training of a larger agency, the City Three police department could save expenditures. However, the union in this case, emboldened by a contractual clause in the collective bargaining agreement, was able to force the city to adhere to a different policy that was more favorable to the union and its members. This resulted in the city continuing to pay the K-9 employee the 5% premium, despite the fact that the services were not being utilized from the employee. Moreover, although temporarily using the cheaper sheriff's K-9 training in the interim, the city still was required to seek a replacement within its ranks to promote to a K-9 training position. This resulted in additional personal services costs beyond that which also was incurred.

Results of the interviews suggest that well defined policies regarding expenditures are the least influenced by unionization or employee voice. Vehicle replacement policies were one such example of well defined policies. Quantitative analysis failed to demonstrate a significant union effect on capital outlays, and qualitative results reported that unions and employees had little

influence on such policies. One non-unionized city (City Six) with a well defined policy regarding unions had the lowest per capita police expenditures of the seven cities in the qualitative inquiry. Cities with well defined policies regarding other phases of operations might benefit from such polices even though the department is unionized.

A statement from the City Two official merits special consideration. The official had opined that his city could not afford a union. A number of cities, relying on economies of scale, contract the services of Florida Sheriff's Offices to provide community protection rather than create their own law enforcement agency. Consider the comparison between unionized City Three and non-unionized City Six. City Six has a per capita police expenditure of less than half that of City Three (Table 18). This observation would appear to support the regression findings. A non-unionized city from an adjacent region to City Three spent 44% less per capita for police services than City Three, even though the city was nearly identical in size. Some considerations of the underlying costs differences between the two cities are that City Three has 16% more officers to protect the same number of residents, and City Three spends 25% more per officer than the same size non-unionized city in Central Florida. Zax (1989: 21) found that the longitudinal effects of unionization on public sector departments resulted in higher employment per capita ratios in bargaining units as compared to non-unionized units.

Interviews of the various city officials indicate that there is a tendency to include pre-existing policies in contractual provisions. This practice may not only increase expenditures over time, it appears to lock in informal policies and extend contractual provisions beyond expiration dates. Consider the case of City Five and its policy to continue merit increases to bargaining unit employees despite non-agreement on an expired collective bargaining agreement. Further

research is necessary to determine whether or not a sense of moral obligation to bargaining unit employees results from provisions in the collective bargaining agreement.

One of the major differences in employee benefits between unionized and non-unionized departments often may be the issue of health care coverage for dependents. Since employers pay nearly half the nation's health care bills, provisions designed to lower the cost of health care are included in more than 95% of 2002 collective bargaining agreements in this country (Carrell & Heavrin, 2004: 345). Health care insurance premiums have risen at a rate nearly quintupled that of inflation in the last few years. In 2002, health insurance premium costs increased by 12.9%, increased by 13.9% in 2003, and in 2004, the increase was 11.2% (Kaiser Family Foundation, 2005a). In 2004, the average family plan health insurance coverage cost $9,950 (Kaiser Family Foundation, 2005b). While Cities Three and Seven pay 75% and 73% respectively for dependent health care insurance, City One pays only 55%, but still pays a larger portion of the costs than does the employee. All three of these cities are unionized. However, City Six, which is non-unionized, pays nothing toward health care coverage for employees' dependents. The only other city which did not offer paid premiums for dependents in the qualitative inquiry was City Two, which also had a non-unionized department. Employee voice, as personified by the union, has a dramatic impact on expenditures in this instance. In City Three and City Seven, this impact adds more than $7,300 annually to police expenditures per each employee with spouse and/or dependents.

The responses by the interviewees regarding the procedures involved in capital outlays also seem to support the evidence from regression analysis that unions have little influence over capital outlay expenditures. While the individual cities may have different vehicle replacement schedules, these procedures are well entrenched and are usually defined by city rather than

departmental policies. Moreover, these policies appear to be established according to rigid utilitarian values that emphasize practical and justifiable guidelines. Although resources may be restricted and purchase policies reflect that restriction, effort is made to ensure that public safety is not compromised. As a result, vehicle replacement policies are more inflexible and less likely to be influenced by the interests espoused by unionization.

Similar dynamisms found in the vehicle replacement policies may be at work in all of the expenditure categories for non-unionized departments, such as Cities Two and Six, which purport to have "open door policies" which are intended to provide employees voice. As noted in the discussion of exit-voice in Chapter II, these open door policies may serve to allow employees to vent their frustrations, but do not permit this voice to substantially alter departmental policy. Harlos (2001: 329) noted that the protocols of the informal complaint systems are poorly specified, and thus permit greater procedural variations. This would make such systems far less influential in decision-making than in the more formalized and procedurally specified mechanisms found in unionized organizations. Since employee voice in non-unionized departments does not perceptively influence predetermined policies, which are not negotiable in non-unionized settings, informal employee voice would not impact expenditures in the same manner as would employee voice formalized by unionization.

Union voice, on the other hand, is empowered and well defined by state statute in the case of police employees. Management has no option but to negotiate with the union. In turn, the union then exerts pressure on management to change policy. Employee voice acquires a full measure of influence under unionized conditions, and impacts police expenditures as a result. This influence, as we have seen, is not restricted to the bounds of labor contracts. In the case of City Five, there was a sense of moral obligation to continue the merit increases despite an

expired contract. City Seven, on the other hand, discontinued their shoe allowances to employees, and justified the action by stating that the contract was expired and the city was no longer obligated to fulfill the terms of that provision.

The effects of unionization affect other agencies as well. As noted by Zax (1988: 301), spillover effects on wages and benefits affect other departments. All of the officials interviewed were keenly aware of the comparative status of their city's police wages in respect to other jurisdictions. As evidenced in the case of City Six, this awareness clearly had an influence on the city's wage policies. Several of the officials interviewed commented that the unions regularly compare wages prevailing in their communities to those of other communities and subsequently request parity with the other communities. The effects of union voice impact the expenditures of more than the host community.

According to Hirschman (1970), Voice and Exit work in concert and compliment each other while Loyalty acts as an intervening factor. In City Two, the interviewed official believed that many of the officers remained in the department because of the police chief who listened to their concerns. However, the official admitted, sometimes the requirements of personal life, such as family needs and promotional opportunities became so strong that the employee felt that the employee's requests (voice) could not improve his or her situation and felt compelled to seek employment in a different agency (exit). While turnover seemed to be a topic of concern for several of the departments in the qualitative inquiry, it seemed more evident in the interviews with the non-unionized departments. Voice could not successfully advance employee concerns in the non-unionized departments, so exit may have been perceived as the only course of action in these situations.

In the unionized departments, voice has much more influence, and as evidenced in the statistical regressions, impacts police expenditures perceptively. The qualitative results of this study support the findings of the quantitative portion of the study. In the personal services expense category, the comments by the City Five official most appropriately demonstrate the influence of union voice. As noted by the official, the unions routinely examined collective bargaining agreements of other agencies and would refer to the provisions of these agreements while negotiating salary and benefits packages for police employees in City Five. The organized effort of the union to negotiate economic gains often results in success, whereas the absence of unions has not been shown to be as effective. The high rate of turnover in City Two was directly attributable to the lower salaries. Employee voice was amplified by the union in the case of City Five, but failed to be heard in City Two, and the employees seeking better pay were forced to exit the department and look for better paying positions.

In another example of union escalated personal services expenditures, the grievance procedure required management personnel time to process disputes. As noted by the official interviewed in City Four, "We have our streaks," in the number of grievances that require time to resolve. The grievance resolving activity is a personal service expense directly related to responding to employee voice as expressed in a unionized environment. Each interviewed official from a unionized city indicated that during labor talks, at least one member from the department serves at least as a departmental representative to provide technical assistance to city attorneys or labor relations specialists. Moreover, additional personal services time is spent accumulating information in preparation for collective bargaining sessions. Collective bargaining in its various aspects requires many hours of clerical, research, and administrative time, all of which increase expenditures.

In the case of operating expenses, the qualitative results supported the quantitative findings by demonstrating that operating expenses such as labor attorney fees were not needed for non-union departments but were needed for union departments. Medical exams appeared only in bargaining cities, and dependent health insurance premiums were paid only by unionized departments in the qualitative sample. In the non-unionized departments interviewed, dependent health insurance was available as extension of existing health care plans, but the employee had to pay the entire premium for spouse and/or dependent coverage. In departments that contribute 75% of total health insurance premium at a starting salary of $33,500, these employers paid dependent health insurance premiums equate to a 22% salary increase for a newly hired employee.

Law enforcement provides a rich sample base to measure the effects of employee voice. A large number of law enforcement agencies exist as potential employers for professional law enforcement employees. Exit thus is a viable alternative to the employee in cases where employee voice is so ineffective, the bonds of loyalty are weakened and exit becomes a more attractive response to existing conditions. Employee voice is weakest in non-unionized organizations. The qualitative inquiry demonstrates this situation with its descriptions of increased turnover in non-unionized environments. The most extreme case was the example of non-union City Two in which the most senior employee had less than seven years with the department. Benefits, such as paid dependent health insurance premiums tend to increase loyalty among employees because the reasons for exiting become a less attractive alternative.

Benefits such as dependent health care premiums are more likely to be found in unionized departments than in non-unionized departments. Employee voice, as strengthened by unionization, secures such types of benefits and provides additional incentive for police

employees to remain in their current employment because it offers the opportunity to the employee to have some control over his/her destiny. However, unionization comes with a price. And that price is reflected in the increased levels of police expenditures.

Conclusion

Information revealed in the qualitative inquiry appears to support the quantitative findings. The results of the inquiry indicated that each of the seven cities included in the sample performed consistently with the predictions of the models discussed in Chapter IV, the Results and Findings chapter. The unionized departments exhibited proportionately greater expenditures than did the non-unionized departments. In the cases of the non-unionized departments, one city had a proactive program to exclude unions from the city which included offering their employees competitive wage packages. Despite the wage packages, the non-unionized city was still able to control costs to a greater extent than unionized departments.

The qualitative inquiry broadened understanding of the information provided by statistical regression in this study. Although the quantitative analysis uncovered the extent of union influence on police expenditures, the qualitative inquiry identified some of the primary contributors to union influence. In both the quantitative portion of the study and in the qualitative portion, however, the conclusions were identical: Employee voice, as amplified by unionization, substantially impacts police expenditures. The final chapter of this study summarizes these conclusions and discusses the implications of these conclusions.

CHAPTER SIX: CONCLUSION

The focus of the dissertation was to determine whether or not unions increase police expenditures, and if there was such an impact, to determine the extent of the impact on each of the expenditure categories. Regression analysis of police expenditures for 257 Florida cities provided evidence that unions do influence police expenditures and influence these expenditures to a substantial degree. A limited qualitative inquiry supported the quantitative findings and suggested that certain collective bargaining provisions may be responsible for the union increased police expenditures.

Although the literature in Chapter II discussed the impact of unionization upon total police expenditures and police personal expenditures across a wide geographic area, the effects of unionization upon police operating expenses and capital outlays remained relatively unexamined. Moreover, there was a paucity of research in the literature regarding the impact of unionization on police expenditures within a single state, a right-to-work state. This study attempts to advance understanding of union influence on not only total police expenditures but also on the three separate categories of police expenditures, and to determine the impact that unionization may exert on these expenditures in a right-to-work state such as Florida.

Unions provide voice to their members, allowing the individual employees an opportunity to influence their employers' decisions and policies. This voice is most apparent in the manner of resource allocation in an organization. By understanding the effects of union voice on resource allocation in organizations, administrators are better equipped to control costs by dealing knowledgeably with union negotiators and officials. The qualitative inquiry identified some areas of concern that impact police expenditures. Most research for union-influenced

expenditures in the literature primarily focused upon the more immediate concerns of unions, such as salaries, benefits, and supplemental pay. This study has extended that research by measuring the union impact on these expenditures in a single right-to-work state. However, additional expenditures in operating expenses and capital outlays have evaded this focus and therefore little attention has been accorded these relatively large expense categories. Union voice is present in at least one of these cost categories as well, and the effects of union voice in these categories should be studied to provide a more comprehensive knowledge of union impact on organizational decision making.

A review of empirical studies in the literature, especially those of Gely and Chandler (1993a; 1995), and Witt (1990), provided much of the pioneering studies that guided selection of control variables. The intent of this study was to rely on statistical techniques common in the literature and comparable to other empirical studies. However, this study specified control variables from three different dimensions of factors that would influence police expenditures. The intent was to render the model comparable in some aspects to other empirical studies without compromising structural integrity. Since the sample selection was confined to a single state (Florida) certain defining characteristics would provide additional explanatory information not present in studies using samples from a larger geographical area. These defining characteristics included the urban versus rural environs of the communities, and the relative indication of service efficiency. As a result, certain control variables such as metropolitan statistical areas and cases cleared were utilized to represent influential factors not present in other studies. Moreover, the three expenditures categories serving as dependent variables are considerably different than the aggregate police expenditures used by most studies. Comparisons

with other studies referenced in this study should then be restricted to overall conclusions rather than to specific relative values.

Summary of Major Findings

Research Questions

Four questions emerged from the original discussion of literature, and these questions guide the research presented in this study. The first research question posed in this study was: *Does unionization influence the level of total police expenditures?* Both the quantitative and the qualitative studies provided evidence that unionization influences the level of total police expenditures. The first question for research was to determine whether or not unions influenced total police expenditures in a right-to-work state such as Florida. Specifically, the question formulated a hypothesis that examines whether or not unions actually increase police expenditures in total. Once the study investigated the issue and produced evidence that unions influence total police expenditures, it attempted to identify which categorical expenses are susceptible to union influence. Regression analysis of the hypothesis related to this question produced strong evidence that even in a right-to-work environment such as Florida, unions significantly impacted total police expenditures. A strong model was identified with eight control variables from three different dimensions (demographic, finance, law enforcement) that would affect police expenditures. All of the control variables were significant in the model and yet the independent variable of concern, which represented unionization, exhibited a robust existence throughout the modeling. Specification bias was thus minimized in the model, and the regression results strongly supported the research hypothesis that the presence of unions tends to increase police expenditures.

The second research question began a focused attempt to identify which police expenditure categories are influenced by unionization. To accomplish this task, ordinary least squares regression was used to test a hypothesis which supposed that union presence would cause increases in police personal services expenditures. The primary concern of employees would presumably be for decisions regarding wages and benefits. Employees that are unionized have additional means to influence their organizations in these decisions through the mechanism of union voice. The second question formulates a hypothesis which examines whether or not unions affect their members' compensation packages, which include wages and supplemental pay. These compensatory items are included in the local government cost category defined as personal services expenditures.

The second research question subsequently allowed the study to determine the extent of union influence on personal services expenditures, or the manner in which expenditures in a unionized environment differs from that of a non-union environment. The second research question posed was: *Does unionization impact the level of personal services expenditures?* The quantitative portion of the study uncovered evidence that indicates that unionization increases police personal services expenditures. Ordinary least squares statistically rejected the null hypothesis that unionized departments did not present evidence that police personal services expenditures were any greater in their departments than in non-unionized departments. Actually, these expenditures were considerably higher (nearly three-quarters again as great) in unionized departments than non-unionized. The expenditures in this category appeared to be the most sensitive to unionization than in any of the categories tested. Union voice was thus most influential in the area of greatest interest to the members. The independent variable of concern, representing the presence of unions, again was very robust in significance amidst a field of eight

control variables from three different dimensions of factors that would influence levels of police expenditures.

The third research question continues the study by examining whether or not unions influence operating expenses expenditures in a manner separate from personal services expenditures or capital outlays expenditures. The third research question presented was: *Does unionization affect the level of police operating expenses expenditures?* The quantitative study produced evidence that unionization increase operating expenses expenditures, and the qualitative study identified a few of the types of expenditures that contribute to the increases in police operating expenses. The influence of unions on operating expenses is not as well understood as that on personal services expenditures because the issue was not as intensely investigated. As a result of this situation, the study attempts to bridge the paucity of research in the literature regarding union influence on police operating expenses. Regression results supplied evidence that unions influence operating expenses expenditures in a manner different than personal services or capital outlays. Although the independent variable of concern, unionization, did not produce as dramatic an effect on operating expenses as it did on personal services expenditures, the impact was substantial and merits further attention. Unionization increases operating expenses by more than a quarter more than those experienced in a non-union environment. The independent variable of concern possessed very robust characteristics in this model as well, despite eight control variables representing other factors impacting operating expenses. These results provide evidence that union voice expresses the values of its members in areas other than just the immediate concerns such as wages and supplemental pay.

The fourth and final research question attempted to determine whether or not unions influence capital outlay expenditures. The research question was posed: *Does unionization*

influence the level of capital outlay expenditures? Multivariate regression failed to produce evidence that unionization impacted capital outlays. The qualitative inquiry identified predetermined existing policies as a possible reason that unionization does not influence capital outlays. Featured in this question is the issue of whether or not union voice participates in critical decision-making related to acquiring expensive equipment such as vehicle replacement policies, or computer system purchases. Again, the literature exhibits a paucity of research in this area. Using the stated methodology of the study, regression analysis failed to provide evidence that unions influence capital outlays expenditures. The independent variable of concern, although it displayed significant statistics with the initial, single entry of the variable into the fourth model, failed to demonstrate the robust significance that it exhibited in the other three models. As the control variables entered the model, statistical significance of the independent variable degenerated. Thus, no evidence was provided to indicate that the presence of unions affected capital outlays expenditures. Union voice may not play an active part in decisions regarding the purchase of expensive police equipment such as vehicles and computer systems.

By answering the foregoing research questions, this study has emphasized a number of issues and has revealed important concerns for local government administrators. First, even in a right-to-work state such as Florida, unionization is a formidable influence that affects total police expenditures. By virtue of presence, unions can influence police expenditures regardless of union density and the subsequent support of the membership. As long as the union is the certified bargaining agent within the local government, that union has the potential to impact public policy as represented by government expenditures.

Answers to the second research question demonstrate that the relative affect of unionization on personal services expenditures is greater than in any other category of

expenditures. This category of expenditures, then require the most attention on the part of public administrators. It should also be noted that this category of expenditures may include hidden costs of doing business with the union because many non-union departments have competitive wages and supplemental pay provisions as their policies, and yet unionized departments still demonstrate significantly higher expenditures than the non-unionized departments. These hidden costs include such items as: administrative time required to negotiate and interact with unions; clerical time to accumulate requested information; time to prepare reports for use in negotiations; legal consulting fees; and costs related to grievance settlements. Since many of the personal services expenditures are similar in union and non-union departments, other factors, such as grievance processing, are causing expenditures to increase in unionized departments.

Research of the third research question regarding operating expenses indicates that unionized departments incur additional expenditures beyond the standardized expenses required to outfit employees for law enforcement services. Some of these expenditures were identified in the qualitative portion of the study by discussing some of the services and supplies specified in collective bargaining agreements that were absent in non-union departments. Although there are many similarities in equipment and services provided unionized and non-unionized departments, the regression results of this study demonstrate that there probably are significant differences as well.

The final research question regarding to capital outlays was not resolved by multivariate regression in this study. Set policies, such as vehicle replacement policies, may dampen the effect unions have upon these types of expenditures. However, studies that focus upon total police expenditures may be inadvertently undermining the results of their research. Research that uses total police expenditures underestimates the effect unions have upon the expenditures

because capital outlays are often included in these computations, thus providing evidence for a lower effect on expenditures because in this study no evidence was produced to indicate that unions have any effect on capital outlays. A more precise study would exclude capital outlays and instead focus upon personal services and operating expenses for which this study produced evidence that union impact was substantial on these expenditure categories.

Control Variables

In all cases, save for one variable in the last regression of Model 3, the independent variable of concern shared significant t-statistics with the eight control variables during regressions for three of the four models. This observation, along with the consideration that three of the four models displayed very strong adjusted R^2 values, provides evidence that the models not only have strong explanatory abilities, but that most bias has been credibly removed from the models to present credible support for three of the four research hypotheses. The variables TAXVALUE and POPULATN emerged as the strongest influences on police expenditures, and yet their presence did not compromise the significance of the UNION variable, which indicates that unionization is a clear factor in deciding how resource allocations will occur in a municipality. Union voice asserts itself in the functioning of a local government agency as well as in the political world and that voice is clearly heard.

Each control variable in the models contributes a noticeable impact on resource allocation in local government. TAXVALUE, representing the ability of a community to provide law enforcement services is clearly the most influential, followed by POPULATN, which represents the actual level of law enforcement services needed in the community. LANDAREA is another representation of the level of law enforcement services needed because the variable demonstrates

that larger areas require additional funds to serve the larger areas. LANDAREA suggests that additional resources such as fuel and man-hours are needed furnish appropriate levels of service even in more remote areas of a city. Significant results for the MSA variable provides evidence that high concentrations of urbanization results in increased expenditures for communities that have to deal with increased traffic and crime spillover effects from adjacent cities. EDUCATN serves an important function as a determinant because the variable's prolonged significance in the models suggests that the amount of average education in a community influences decisions of resource allocation regardless of the level of income associated with increased education.

The OWNHOME variable deserves additional future examination as a result of the various interpretations accorded the variable's influence. While Witt (1990: 171) suggested that the influence of OWNHOME may be the result of homeowners being more sensitive than renters to property tax burdens. This study finds merit in that position, but suggests that events requiring law enforcement intervention are considerably less in communities with a high degree of homeownership as compared to communities primarily composed of rental properties. Finally, the law enforcement factor variables CRIMERT1 and CSECLR1 provide unique contributions to the model as well. While the significance of crime rate variables differ from model to model, the incidence of crime usually is very much a concern of local governments. But the level of crime, according to the study's results does not appear to be as influential as a determinant of police expenditures as is the ability to contain crime within the limits defined by the community. In the models, CSECLR1 acted as a proxy for the ability to control crime in the community.

Qualitative Interviews

The interview results presented in Chapter V described some of the differentiating characteristics of union and non-union departments in the state of Florida. There is some evidence that unionized departments experience higher expenses as a result of the increased administrative costs associated with unionization. The services of labor attorneys are often utilized during negotiations with unions, and must be compensated as operating expenses. Managerial personnel spend additional time in grievance procedures that do not exist in non-union departments. Often the grievance procedures result in compromises that incur additional expenses. But a strong probable reason unions impact police expenditures is the observation that unions fortify employee voice and require management to deal with the demands associated with employee voice.

The issues of main concern for the employees are of course wages and benefits. As pointed out by one of the officials interviewed, "They're always asking for more money." But personal services expenses are impacted by the union in other ways as well. "Roll-up costs," such as social security benefits, contributions to pension funds, and other similar benefits are impacted because these costs rise proportionately with wages. Employees may request additional staffing to provide better services to the community, which in turn requires more compensatory payments. Settlements from grievance procedures often result in additional funds being paid to employees. Finally, the administrative costs of processing grievances, complying with contractual provisions, and supplying managerial employees for contract negotiations further inflate costs related to unionization.

Information emerged from the interviews that may provide an explanation for the quantitative finding that unions may not impact capital outlay expenditures. In most cases, the

decision-making processes for capital outlays are slightly different than for personal services expenditures or operating expenses. In the case of vehicles, the largest component of capital outlays expenditures, vehicle replacement decisions are often removed from the police departments. A separate fleet services department makes vehicle replacement policies based upon a predetermined formula which the community can afford. Since the locus of decision-making is more remote to the union, the union's influence is less effective. A strong, predetermined policy not subject to negotiations, such as a vehicle replacement policy, would be less likely to be influenced by union voice. Moreover, as noted by some of the interviewed officials, union interest in vehicle condition may not be as intense as in other issues, such as wages and benefits. Knowing that resources are limited, the union may focus more upon compensation issues because in some communities, it may be an "either or" choice in negotiation posturing. Wages and benefits would obviously be of greater interest in those situations.

Voice for non-union employees does not attain the same level of effectiveness as that of unionized employees with respect to police expenditures. Predetermined policies regarding wages, benefits, and operating expenses are not as susceptible to the influence of the unorganized voice expressed by non-union employees as these same policies are to the influence of the more potent voice expressed by union employees. In the case of non-union employees, some concern may be shared with management, but as noted by Krefting and Powers (1998: 274), these employees must weigh the possibilities of attaining the purpose of voice against the possibility of reprisals. Freeman and Medhoff (1979: 73) argue that unionized workers are less reluctant to express discontent than non-union workers under similar circumstances. Bowmen and Blackmon (2003: 1394) attribute this lack of reluctance to the co-worker support that unionization provides.

One factor that should be considered when evaluating the impact unions have upon police expenditures is the possibility that unions reduce turnover by enhancing voice. As discussed in the cases of Cities Two and Six, while turnover appears to plague law enforcement agencies in general, city officials in the non-unionized cities expressed the most concern regarding turnover. While these observations are not conclusive by any means, they do lend support to research that found evidence to indicate that unionization does tend to decrease exit in organizations. Empirical studies (Freeman & Medoff, 1984: 1984: 95; Miller & Mulvey, 1991; and Rees (1991: 31) indicate that unions reduce turnover by offering a stronger voice in the organization.[40]

Implications for Local Government

As discussed in the introduction and in the literature review, police expenditures in the state of Florida are a sizable portion of General Fund outlays. The average Florida municipality spends nearly a third of its general fund on police services alone (Florida Department of Financial Services, 2004). The impact of any determinant on such a large portion of a city's budget should be carefully monitored and controlled. One such determinant is unionization of municipal police departments. Research previously referenced in the literature and subsequently conducted in this study described double digit percentage increases that results from unionization. Unionization impacts budgets in many different ways, some of which are subject to the public administrator's ability to control. A labor climate which fuels dissent and dissatisfaction is particularly influential in the incurrence of expenditures. Such environs require additional workhours on the part of management employees and bargaining employees to resolve

[40] A more detailed discussion of this subject can be found in the *Exit-Voice Phenomenon* section of this study's Chapter Two.

disputes. Often the solutions are created during normal working hours. These situations increase personal services expenditures, the most expensive of the three police expenditure categories.

Other factors, such as supplemental pay and benefits also contribute to increased police expenditures. Usually these cost factors are routinely identified and included in the annual budget. However, unions' requests for additional training or other concerns may not be included in fiscal budget planning sessions and thus may result in a mid-year budget adjustment or cost overruns. The qualitative interviews indicated that although city central budget departments are quite skilled in estimating contractual raises, incidents such as the air quality standards test in City Seven can strain these anticipatory estimates. Operating expenses, as demonstrated by the regressions in the Results and Findings Chapter, are also influenced by unionization. These would include union requests for changes in equipment and weaponry. As discussed in previous chapters, any consideration related to working conditions is subject to collective bargaining in Florida's public sector. This includes selection of equipment and supplies. Unions are thus justified in including requests for such items as changing weapon caliber, or the type of protective law enforcement devices. Incidental costs, such as annually required physical examinations, are often borne by management.

Research in this study, using cross-sectional data, failed to demonstrate that unions affect capital outlays. Cross sectional data, being restricted to the dynamics of a single year, fails to capture characteristics that occur over time. Results from a longitudinal study could yield more definitive evidence that unions do or do not affect capital outlays. Since capital outlays for police vehicles are often incurred as the result of a local purchase policy, unions could possibly exert voice in these type of policy decisions.

Managerial awareness of the extent of union influence on police expenditures provides the first step in controlling the effects of this type of influence. The decisions that impact police expenditures are often executed in the routine environs of day-to-day operations. But they can be built into the contract as well. Some police union contracts such as in City One in the Qualitative Perspectives Chapter V specify allowances for uniforms, equipment, annual physical examinations, development and training, and eye examinations. All of the foregoing costs are classified as operating expenses and are influenced by the union. Combined operating expenses for the 257 cities in the sample are over $250 million, and the total police expenditures for the study's 257 cities is approximately $2 billion. The figures for police expenditures do not include data for sheriff's offices, university police, state patrol or any of the other law enforcement agencies within the state.

Policy and Managerial Implications

Grievances and other attempts at dispute resolution often can be mitigated through enlightened labor policies and team efforts. Labor-management dialogues are critical not only in maintaining positive labor relations, but also ultimately in saving expenditures that are in reality caused by a breakdown in communications. Chapter II of this study examined the potential of labor-management partnerships(or collaborative management) that were successfully introduced in other locations around the country, particularly in Indianapolis. Although no Florida city is known to use the collaborative approach in police departments, some Florida school districts have used such an approach successfully with teaching employees (see the Collaborative Management section in Chapter II). Collaborative approaches to collective bargaining in Florida have been credited with saving costs by reducing the number of grievances (Franco, 2002: 110).

Research by Franco (2002: 97) also found that the collaborative approach actually resulted in lower salaries when compared with similar school districts utilizing traditional management methods. This approach may work with law enforcement employees as well.

From a practitioner's standpoint, labor relations training for managerial personnel would mitigate union impact on expenditures by advising supervisors in procedures related to dealing with disgruntled employees. Time spent on resolving grievances and accumulating documentation to resolve disputes contribute to a large portion of both personal services expenditures and operating expenses. Enlightened managerial employee relations techniques would minimize such expenses. Folger and Cropanzano (1998: 27-30) note that the level of interactional justice between an employer and an employee affects perceptions of fairness. If the employee perceives a lack of fairness resulting from the way he or she is being treated, the employee would then be more likely to utilize the grievance procedure. The ultimate result is increased expenditures.

Labor relations training would also guide supervisory employees in the day to day relations with union representatives. Assenting to simple practices as contract cleaning the interior of vehicles on a regular basis could lead to such activities being included in contractual provisions of future collective bargaining agreements. Such concessions to the union, even if not formalized by written agreement could encumber managements with future commitments through "past practice" arguments.

An undetermined number of Florida municipalities use cost analysis to estimate the changes in annual police expenditures caused by collective bargaining. Sharing this information with the union bargaining agents creates awareness of the impact of union demands, the voice of employees. Some municipalities do not calculate these types of expenditures until after an

agreement has been in effect for a year or more, not realizing that it is more difficult to remove agreed upon contractual provisions in concessionary bargaining. The qualitative inquiry indicated that once an item has been included in the collective bargaining agreement, the union tends to view a unilateral discontinuance of the item as a concession. There is thus more pressure on management negotiators to accept existing provisions of collective bargaining agreements. Even though the city may gain concessions voluntarily or involuntarily from the union, often rank and file members become disgruntled as a result of these concessions, and utilize union voice in grievance filing, an expensive consequence that affects police expenditures. Police departments recently unionized would especially benefit from such cost analysis to avoid reliance on concession bargaining during economic crises. In difficult times, city negotiators may have to pressure unions for concessions to ensure fiscal viability. As discussed previously, there is reluctance on the part of city negotiators to press for concessions. Proactive cost analyses usually provide information regarding pending economic conditions, and therefore would allow negotiators to anticipate such events during negotiations. Municipal finance officers usually have little trouble monetizing provisions in collective bargaining agreements, and indeed this should be done before administrative and legislative approval of labor agreements. Monetizing requires only an objective conversion of policy into dollar values.

Results from the regressions of this study could also provide guidance to management bargaining agents and personnel who regularly negotiate with the union. The impact of the union on police expenditures has been demonstrated to be quite substantial. Moreover this impact affects not only the personal services expenditures but also operating expenses. Thus, management negotiators who consider union requests for additional or specific equipment and supplies as minor bargaining issues may also want to consider cost analysis to determine the

exact fiscal impact on police expenditures before conceding minor bargaining issues. The cumulative effects of unexpected requests by the union related to equipment and supplies may otherwise go unappreciated.

Mid year adjustments to collective bargaining agreements which are created by labor-management meetings, memorandums of understanding, and other means, tend to encumber the communities further by increasing police expenditures according to some of the administrators interviewed. One administrator pointed out that during these types of negotiations management is at a disadvantage because the union is engaging in risk-free bargaining on their part. During regular collective bargaining sessions, everything is on the table, including wages, benefits, and other items of concern to union members.

The give-and-take approach is absent during mid year negotiations because the major items of concern to the union (wages and benefits) are not part of the negotiations package. As a result, at least one city included in the interview restricts collective bargaining to the regularly scheduled session during contract renewal talks only unless the union request involves safety related matters. This policy, according to one official, mitigates cost increases resulting from union demands. This type of approach, however, is considerably different than the one espoused by collaborative management theorists. The collaborative management proponents would maintain that a continual open dialogue is essential to their process of labor relations, and would therefore engage in collective bargaining throughout the duration of the contract.

Basic formulas for salaries, supplemental pay, benefits, and other personal service expenditures are established during collective bargaining, but the expenditures actually incurred by police departments also fluctuate according to the use of human resources through staffing and scheduling. Performance audits relying on interjurisdictional benchmarking may reveal

contractual provisions that impede efficient allocation of resources.[41] Such operational impediments would affect operating expenses as well as personal services expenditures. An example of these types of situations would be decisions regarding the use of overtime and callback provisions. Restrictive policies regarding the use of overtime and the manner in which it is utilized may incur additional expenses. With the exception of safety considerations, overtime assignments for on duty employees may be less expensive than callbacks, which usually entail a specified amount of time the employee is to be paid at overtime rates (usually two hours) regardless of time required to perform the service.

The change in expenditures wrought by unionization especially merits the attention of non-union police departments. Although, according to Zax (1988: 301), unionization results in spillover effects on wages and benefits of adjacent non-union bargaining units, the results from regressions of this study indicate that despite these spillover effects, unionization incurs additional expenses in unionized departments. These additional expenses are not restricted to personal services but also affect operating expenses. So even though an adjacent community without a union may have similar wages and benefits as its neighboring unionized police department, the police expenditures, on average, are still greater in the unionized police department.

Limitations

Misspecification of variables, especially when dealing with human decision-making, could inadvertently result in critical relevant data being left out of the study. Some considerations that affect causality have yet to be identified or quantified. Certainly the

[41] As an example, a performance audit of the K-9 training program in City Three would have revealed the advantage of outsourcing such training to the sheriff's office.

diplomatic skills of a union leader can affect decision making outcomes that cause police budgets to fluctuate. However, such skills elude measurement because the perception of these skills is largely subjective. Unions also vary in type and temperament, and the labor climate may change from city to city. The effects of a more cooperative union may differ dramatically from the effects of a more militant union upon budgets. A militant union also drains more resources in application of the collective bargaining agreement by invoking grievance procedures at a greater rate and intensity than more cooperative unions. Management style also varies from organization to organization, and in many cases may be responsible for the posture taken by the relevant unions. Additional research is needed to measure the effects of union militancy and management style on expenditures.

Managerial and administrative skills also are factors which are not readily measured by regression techniques. Variables such as CSECLR1 may attempt to measure the efficiency of a department, but does not present the entire scope of efficiency or effectiveness of a police department. Other considerations affect department efficiency, including the abilities of supervisory personnel to schedule and staff properly. These abilities are intricate functions of any city operation and as such are very real determinants of police expenditures.

Another limitation for consideration is the manner in which municipalities record expenditures. Some communities may not strictly adhere to state guidelines while reporting expenses according to the proper categories of expenditures. It is anticipated that subjective categorization of the expenditures would be mitigated by the Florida Uniform Accounting System Chart of Accounts which directs Florida local governments to report expenditures in a consistent manner. Since the municipalities are required to submit information to the Florida Department of Financial Services, there is a subsequent standardization of line item categories.

However, the possibility continues to exist that some communities fail to record expenditures accurately according to state requirements.

The study also makes some assumptions regarding the data, that the information is complete, when in reality no data set is complete. The Uniform Crime Report's Part I crimes data, for instance, provides an example of this observation. Not all crimes are reported, and therefore the Part I crime rate and subsequent variable constructs based on crime rates (such as cases cleared) may not accurately reflect the strength of variables that control for crime related factors. Crime rates may be reported to a greater extent in the more affluent communities than in the less wealthy communities, thus skewing the data in some cases. Finally, since the study consists of cross sectional rather than longitudinal data, generalizability of the results will be constrained, and definitive causality can not be conclusively stated.

In the qualitative inquiry, the limiting factors of interviews were inherent in the seven case studies. These factors include considerations that some interview data is based on recollections, opinions, and human memory. Although an attempt was made to standardize the questions, the questions were also open-ended and, as such, the responses to the questions may have been based on personal values. Finally, some of the interviewed officials served very large agencies and it would be expected that their comprehensive understanding of their agencies was limited by their respective positions.

Recommendations for Future Research

First and foremost, a longitudinal study would yield more reliable information regarding possible union influence on capital outlays. With the available information, it appears that as a result of long ranged strategies and policies for capital equipment purchases, unions exert little

influence in this expenditure category. A longitudinal study would be better situated to determine whether or not evidence exists that union voice affects capital outlays. A longitudinal study would also provide more reliable evidence that unions affect expenditures over long periods of time. Changing patterns of bargaining techniques with public sector unions may produce different results than those uncovered by this study. Concessionary bargaining in the private sector is an example of how bargaining may change under different economic conditions. The public sector may not be immune to similar conditions.

The limited qualitative research in this study revealed contradictory opinions regarding the method of dialogue with employee unions. One side espouses a spirit of reconciliation through a collaborative approach in resolving differences. The obverse of this policy is that of a more restricted relationship, such as permitting collective bargaining only during specified dates to control expenditures. Future research may identify which policy would yield the desired results, and possibly under what conditions that policy would be preferred. The merits of the collaborative approach as compared to the restricted approach should be examined further by determining whether or not one approach differs from the other approach in terms of police expenditures.

More research is needed to determine exactly why unions increase police expenditures in a more populous state such as Florida. Since many non-union police departments in Florida offer competitive wages, benefits, and other consideration, the findings of the study may be somewhat counterintuitive for some analysts. Florida, as the nation's fourth largest state with over 16 million residents, also is the 9th most densely populated state, with over 296 persons per square mile (United States Census Bureau, 2005). Although remote areas do exist in the state, over 80% of Florida cities are included in a metropolitan statistical area (see Table 5, descriptive statistics).

Yet less than 58% of the 257 cities that make up the study's samples are unionized (Table 5). Some other factor related to the presence of unions (other than increased wages and benefits) may be responsible for increased police expenditures.

A comprehensive study of labor contracts from unionized police departments would produce additional information as to the types of equipment, supplies and services are likely to be found in collective bargaining agreements that would tend to increase police expenditures. In a number of the collective bargaining agreements reviewed or discussed at the cities included in the qualitative study, an itemized list was included in provisions that specified the type of equipment, supplies, and services to be provided the law enforcement employees. A comparison of these items with items issued by non-union cities may provide additional information regarding the increased expenditures associated with unionized police departments.

APPENDIX A: GENERAL FUND DATA CORRELATIONS

Table A1. Model 1 Pearson's Correlations

		LTTLPOL$	UNION	TAXVALUE	LANDAREA	MAJRACE	OVER65	OWNHOME	EDUCATN	POPULATN	MSA	CRIMERT1	CSECLR1	MILLAGE
LTTLPOL$	Pearson Correlation	1	.496**	.718**	.621**	-.053	-.085	-.306**	.202**	.729**	.411**	.198**	-.310**	.099
	Sig. (1-tailed)	.	.000	.000	.000	.199	.088	.000	.001	.000	.000	.001	.000	.060
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
UNION	Pearson Correlation	.496**	1	.307**	.261**	.078	.015	-.092	.217**	.309**	.281**	.121*	-.265**	.044
	Sig. (1-tailed)	.000	.	.000	.000	.107	.405	.071	.000	.000	.000	.027	.000	.242
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
TAXVALUE	Pearson Correlation	.718**	.307**	1	.629**	.003	-.034	-.214**	.142*	.856**	.215**	.109*	-.186**	.007
	Sig. (1-tailed)	.000	.000	.	.000	.481	.295	.000	.012	.000	.000	.041	.001	.456
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
LANDAREA	Pearson Correlation	.621**	.261**	.629**	1	-.098	-.171**	-.163**	.083	.720**	.174**	.099	-.106*	.048
	Sig. (1-tailed)	.000	.000	.000	.	.059	.003	.005	.091	.000	.003	.056	.045	.224
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MAJRACE	Pearson Correlation	-.053	.078	.003	-.098	1	.508**	.529**	.654**	-.123*	.289**	-.481**	-.025	-.492**
	Sig. (1-tailed)	.199	.107	.481	.059	.	.000	.000	.000	.025	.000	.000	.345	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
OVER65	Pearson Correlation	-.085	.015	-.034	-.171**	.508**	1	.408**	.398**	-.188**	.057	-.217**	-.107*	-.301**
	Sig. (1-tailed)	.088	.405	.295	.003	.000	.	.000	.000	.001	.181	.000	.043	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
OWNHOME	Pearson Correlation	-.306**	-.092	-.214**	-.163**	.529**	.408**	1	.469**	-.304**	.076	-.479**	.022	-.294**
	Sig. (1-tailed)	.000	.071	.000	.005	.000	.000	.	.000	.000	.112	.000	.362	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
EDUCATN	Pearson Correlation	.202**	.217**	.142*	.083	.654**	.398**	.469**	1	-.016	.416**	-.332**	-.150**	-.472**
	Sig. (1-tailed)	.001	.000	.012	.091	.000	.000	.000	.	.402	.000	.000	.008	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
POPULATN	Pearson Correlation	.729**	.309**	.856**	.720**	-.123*	-.188**	-.304**	-.016	1	.210**	.128*	-.154**	.157**
	Sig. (1-tailed)	.000	.000	.000	.000	.025	.001	.000	.402	.	.000	.020	.007	.007
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MSA	Pearson Correlation	.411**	.281**	.215**	.174**	.289**	.057	.076	.416**	.210**	1	-.088	-.243**	.025
	Sig. (1-tailed)	.000	.000	.000	.003	.000	.181	.112	.000	.000	.	.079	.000	.347
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
CRIMERT1	Pearson Correlation	.198**	.121*	.109*	.099	-.481**	-.217**	-.479**	-.332**	.128*	-.088	1	-.082	.387**
	Sig. (1-tailed)	.001	.027	.041	.056	.000	.000	.000	.000	.020	.079	.	.096	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
CSECLR1	Pearson Correlation	-.310**	-.265**	-.186**	-.106*	-.025	-.107*	.022	-.150**	-.154**	-.243**	-.082	1	-.079
	Sig. (1-tailed)	.000	.000	.001	.045	.345	.043	.362	.008	.007	.000	.096	.	.106
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MILLAGE	Pearson Correlation	.099	.044	.007	.048	-.492**	-.301**	-.294**	-.472**	.157**	.025	.387**	-.079	1
	Sig. (1-tailed)	.060	.242	.456	.224	.000	.000	.000	.000	.007	.347	.000	.106	.
	N	250	250	250	250	250	250	250	250	250	250	250	250	250

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Table A2. Model 2 Pearson's Correlation

		LPER$	UNION	TAXVALUE	LANDAREA	MAJRACE	OVER65	OWNHOME	EDUCATN	POPULATN	MSA	CRIMERT1	CSECLR1	MILLAGE
LPER$	Pearson Correlation	1	.506**	.713**	.612**	-.046	-.078	-.304**	.203**	.724**	.414**	.197**	-.312**	.100
	Sig. (1-tailed)	.	.000	.000	.000	.229	.106	.000	.001	.000	.000	.001	.000	.058
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
UNION	Pearson Correlation	.506**	1	.307**	.261**	.078	.015	-.092	.217**	.309**	.281**	.121*	-.265**	.044
	Sig. (1-tailed)	.000	.	.000	.000	.107	.405	.071	.000	.000	.000	.027	.000	.242
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
TAXVALUE	Pearson Correlation	.713**	.307**	1	.629**	.003	-.034	-.214**	.142*	.856**	.215**	.109*	-.186**	.007
	Sig. (1-tailed)	.000	.000	.	.000	.481	.295	.000	.012	.000	.000	.041	.001	.456
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
LANDAREA	Pearson Correlation	.612**	.261**	.629**	1	-.098	-.171**	-.163**	.083	.720**	.174**	.099	-.106*	.048
	Sig. (1-tailed)	.000	.000	.000	.	.059	.003	.005	.091	.000	.003	.056	.045	.224
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MAJRACE	Pearson Correlation	-.046	.078	.003	-.098	1	.508**	.529**	.654**	-.123*	.289**	-.481**	-.025	-.492**
	Sig. (1-tailed)	.229	.107	.481	.059	.	.000	.000	.000	.025	.000	.000	.345	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
OVER65	Pearson Correlation	-.078	.015	-.034	-.171**	.508**	1	.408**	.398**	-.188**	.057	-.217**	-.107*	-.301**
	Sig. (1-tailed)	.106	.405	.295	.003	.000	.	.000	.000	.001	.181	.000	.043	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
OWNHOME	Pearson Correlation	-.304**	-.092	-.214**	-.163**	.529**	.408**	1	.469**	-.304**	.076	-.479**	.022	-.294**
	Sig. (1-tailed)	.000	.071	.000	.005	.000	.000	.	.000	.000	.112	.000	.362	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
EDUCATN	Pearson Correlation	.203**	.217**	.142*	.083	.654**	.398**	.469**	1	-.016	.416**	-.332**	-.150**	-.472**
	Sig. (1-tailed)	.001	.000	.012	.091	.000	.000	.000	.	.402	.000	.000	.008	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
POPULATN	Pearson Correlation	.724**	.309**	.856**	.720**	-.123*	-.188**	-.304**	-.016	1	.210**	.128*	-.154**	.157**
	Sig. (1-tailed)	.000	.000	.000	.000	.025	.001	.000	.402	.	.000	.020	.007	.007
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MSA	Pearson Correlation	.414**	.281**	.215**	.174**	.289**	.057	.076	.416**	.210**	1	-.088	-.243**	.025
	Sig. (1-tailed)	.000	.000	.000	.003	.000	.181	.112	.000	.000	.	.079	.000	.347
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
CRIMERT1	Pearson Correlation	.197**	.121*	.109*	.099	-.481**	-.217**	-.479**	-.332**	.128*	-.088	1	-.082	.387**
	Sig. (1-tailed)	.001	.027	.041	.056	.000	.000	.000	.000	.020	.079	.	.096	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
CSECLR1	Pearson Correlation	-.312**	-.265**	-.186**	-.106*	-.025	-.107*	.022	-.150**	-.154**	-.243**	-.082	1	-.079
	Sig. (1-tailed)	.000	.000	.001	.045	.345	.043	.362	.008	.007	.000	.096	.	.106
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MILLAGE	Pearson Correlation	.100	.044	.007	.048	-.492**	-.301**	-.294**	-.472**	.157**	.025	.387**	-.079	1
	Sig. (1-tailed)	.058	.242	.456	.224	.000	.000	.000	.000	.007	.347	.000	.106	.
	N	250	250	250	250	250	250	250	250	250	250	250	250	250

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Table A3. Model 3 Pearson's Coefficients

		LCAPOUT$	UNION	TAXVALUE	LANDAREA	MAJRACE	OVER65	OWNHOME	EDUCATN	POPULATN	MSA	CRIMERT1	CSECLR1	MILLAGE
LCAPOUT$	Pearson Correlation	1	.140*	.252**	.343**	-.062	.007	-.113*	.152**	.300**	.162**	.078	-.124*	-.035
	Sig. (1-tailed)	.	.016	.000	.000	.171	.457	.042	.010	.000	.006	.115	.028	.299
	N	236	236	236	236	236	236	236	236	236	236	236	236	230
UNION	Pearson Correlation	.140*	1	.307**	.261**	.078	.015	-.092	.217**	.309**	.281**	.121*	-.265**	.044
	Sig. (1-tailed)	.016	.	.000	.000	.107	.405	.071	.000	.000	.000	.027	.000	.242
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
TAXVALUE	Pearson Correlation	.252**	.307**	1	.629**	.003	-.034	-.214**	.142*	.856**	.215**	.109*	-.186**	.007
	Sig. (1-tailed)	.000	.000	.	.000	.481	.295	.000	.012	.000	.000	.041	.001	.456
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
LANDAREA	Pearson Correlation	.343**	.261**	.629**	1	-.098	-.171**	-.163**	.083	.720**	.174**	.099	-.106*	.048
	Sig. (1-tailed)	.000	.000	.000	.	.059	.003	.005	.091	.000	.003	.056	.045	.224
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
MAJRACE	Pearson Correlation	-.062	.078	.003	-.098	1	.508**	.529**	.654**	-.123*	.289**	-.481**	-.025	-.492**
	Sig. (1-tailed)	.171	.107	.481	.059	.	.000	.000	.000	.025	.000	.000	.345	.000
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
OVER65	Pearson Correlation	.007	.015	-.034	-.171**	.508**	1	.408**	.398**	-.188**	.057	-.217**	-.107*	-.301**
	Sig. (1-tailed)	.457	.405	.295	.003	.000	.	.000	.000	.001	.181	.000	.043	.000
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
OWNHOME	Pearson Correlation	-.113*	-.092	-.214**	-.163**	.529**	.408**	1	.469**	-.304**	.076	-.479**	.022	-.294**
	Sig. (1-tailed)	.042	.071	.000	.005	.000	.000	.	.000	.000	.112	.000	.362	.000
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
EDUCATN	Pearson Correlation	.152**	.217**	.142*	.083	.654**	.398**	.469**	1	-.016	.416**	-.332**	-.150**	-.472**
	Sig. (1-tailed)	.010	.000	.012	.091	.000	.000	.000	.	.402	.000	.000	.008	.000
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
POPULATN	Pearson Correlation	.300**	.309**	.856**	.720**	-.123*	-.188**	-.304**	-.016	1	.210**	.128*	-.154**	.157**
	Sig. (1-tailed)	.000	.000	.000	.000	.025	.001	.000	.402	.	.000	.020	.007	.007
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
MSA	Pearson Correlation	.162**	.281**	.215**	.174**	.289**	.057	.076	.416**	.210**	1	-.088	-.243**	.025
	Sig. (1-tailed)	.006	.000	.000	.003	.000	.181	.112	.000	.000	.	.079	.000	.347
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
CRIMERT1	Pearson Correlation	.078	.121*	.109*	.099	-.481**	-.217**	-.479**	-.332**	.128*	-.088	1	-.082	.387**
	Sig. (1-tailed)	.115	.027	.041	.056	.000	.000	.000	.000	.020	.079	.	.096	.000
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
CSECLR1	Pearson Correlation	-.124*	-.265**	-.186**	-.106*	-.025	-.107*	.022	-.150**	-.154**	-.243**	-.082	1	-.079
	Sig. (1-tailed)	.028	.000	.001	.045	.345	.043	.362	.008	.007	.000	.096	.	.106
	N	236	257	257	257	257	257	257	257	257	257	257	257	250
MILLAGE	Pearson Correlation	-.035	.044	.007	.048	-.492**	-.301**	-.294**	-.472**	.157**	.025	.387**	-.079	1
	Sig. (1-tailed)	.299	.242	.456	.224	.000	.000	.000	.000	.007	.347	.000	.106	.
	N	230	250	250	250	250	250	250	250	250	250	250	250	250

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Table A4. Model 4 Pearson's Correlations

		LOPEX$	UNION	TAXVALUE	LANDAREA	MAJRACE	OVER65	OWNHOME	EDUCATN	POPULATN	MSA	CRIMERT1	CSECLR1	MILLAGE
LOPEX$	Pearson Correlation	1	.416**	.711**	.633**	-.109*	-.116*	-.321**	.155**	.716**	.357**	.201**	-.269**	.086
	Sig. (1-tailed)	.	.000	.000	.000	.041	.032	.000	.007	.000	.000	.001	.000	.088
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
UNION	Pearson Correlation	.416**	1	.307**	.261**	.078	.015	-.092	.217**	.309**	.281**	.121*	-.265**	.044
	Sig. (1-tailed)	.000	.	.000	.000	.107	.405	.071	.000	.000	.000	.027	.000	.242
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
TAXVALUE	Pearson Correlation	.711**	.307**	1	.629**	.003	-.034	-.214**	.142*	.856**	.215**	.109*	-.186**	.007
	Sig. (1-tailed)	.000	.000	.	.000	.481	.295	.000	.012	.000	.000	.041	.001	.456
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
LANDAREA	Pearson Correlation	.633**	.261**	.629**	1	-.098	-.171**	-.163**	.083	.720**	.174**	.099	-.106*	.048
	Sig. (1-tailed)	.000	.000	.000	.	.059	.003	.005	.091	.000	.003	.056	.045	.224
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MAJRACE	Pearson Correlation	-.109*	.078	.003	-.098	1	.508**	.529**	.654**	-.123*	.289**	-.481**	-.025	-.492**
	Sig. (1-tailed)	.041	.107	.481	.059	.	.000	.000	.000	.025	.000	.000	.345	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
OVER65	Pearson Correlation	-.116*	.015	-.034	-.171**	.508**	1	.408**	.398**	-.188**	.057	-.217**	-.107*	-.301**
	Sig. (1-tailed)	.032	.405	.295	.003	.000	.	.000	.000	.001	.181	.000	.043	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
OWNHOME	Pearson Correlation	-.321**	-.092	-.214**	-.163**	.529**	.408**	1	.469**	-.304**	.076	-.479**	.022	-.294**
	Sig. (1-tailed)	.000	.071	.000	.005	.000	.000	.	.000	.000	.112	.000	.362	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
EDUCATN	Pearson Correlation	.155**	.217**	.142*	.083	.654**	.398**	.469**	1	-.016	.416**	-.332**	-.150**	-.472**
	Sig. (1-tailed)	.007	.000	.012	.091	.000	.000	.000	.	.402	.000	.000	.008	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
POPULATN	Pearson Correlation	.716**	.309**	.856**	.720**	-.123*	-.188**	-.304**	-.016	1	.210**	.128*	-.154**	.157**
	Sig. (1-tailed)	.000	.000	.000	.000	.025	.001	.000	.402	.	.000	.020	.007	.007
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MSA	Pearson Correlation	.357**	.281**	.215**	.174**	.289**	.057	.076	.416**	.210**	1	-.088	-.243**	.025
	Sig. (1-tailed)	.000	.000	.000	.003	.000	.181	.112	.000	.000	.	.079	.000	.347
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
CRIMERT1	Pearson Correlation	.201**	.121*	.109*	.099	-.481**	-.217**	-.479**	-.332**	.128*	-.088	1	-.082	.387**
	Sig. (1-tailed)	.001	.027	.041	.056	.000	.000	.000	.000	.020	.079	.	.096	.000
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
CSECLR1	Pearson Correlation	-.269**	-.265**	-.186**	-.106*	-.025	-.107*	.022	-.150**	-.154**	-.243**	-.082	1	-.079
	Sig. (1-tailed)	.000	.000	.001	.045	.345	.043	.362	.008	.007	.000	.096	.	.106
	N	257	257	257	257	257	257	257	257	257	257	257	257	250
MILLAGE	Pearson Correlation	.086	.044	.007	.048	-.492**	-.301**	-.294**	-.472**	.157**	.025	.387**	-.079	1
	Sig. (1-tailed)	.088	.242	.456	.224	.000	.000	.000	.000	.007	.347	.000	.106	.
	N	250	250	250	250	250	250	250	250	250	250	250	250	250

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

APPENDIX B: TOTAL POLICE EXPENDITURES REGRESSION

Table B1. Model 1 Regression 1 with UNION Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	UNION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496[a]	.246	.244	1.20683

a. Predictors: (Constant), UNION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	121.471	1	121.471	83.403	.000[a]
	Residual	371.390	255	1.456		
	Total	492.861	256			

a. Predictors: (Constant), UNION

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.832	.116		119.112	.000
	UNION	1.393	.153	.496	9.133	.000

a. Dependent Variable: LTTLPOL$

Table B2. Model 1 Regression 2 with TAXVALUE Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	TAXVALUE, UNION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775[a]	.600	.597	.88109

a. Predictors: (Constant), TAXVALUE, UNION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	295.673	2	147.837	190.431	.000[a]
	Residual	197.187	254	.776		
	Total	492.861	256			

a. Predictors: (Constant), TAXVALUE, UNION

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.658	.086		159.605	.000
	UNION	.855	.117	.305	7.307	.000
	TAXVALUE	3.60E-10	.000	.625	14.980	.000

a. Dependent Variable: LTTLPOL$

Table B3. Model 1 Regression 3 with LANDAREA Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	LANDAREA, UNION, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.798[a]	.637	.632	.84139

a. Predictors: (Constant), LANDAREA, UNION, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	313.751	3	104.584	147.729	.000[a]
	Residual	179.110	253	.708		
	Total	492.861	256			

a. Predictors: (Constant), LANDAREA, UNION, TAXVALUE

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.583	.083		163.536	.000
	UNION	.802	.112	.286	7.151	.000
	TAXVALUE	2.74E-10	.000	.475	9.565	.000
	LANDAREA	2.03E-02	.004	.247	5.053	.000

a. Dependent Variable: LTTLPOL$

Table B4. Model 1 Regression 4 with OWNHOME Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	OWNHOME, UNION, LANDAREA, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.810[a]	.657	.651	.81947

a. Predictors: (Constant), OWNHOME, UNION, LANDAREA, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	323.636	4	80.909	120.486	.000[a]
	Residual	169.224	252	.672		
	Total	492.861	256			

a. Predictors: (Constant), OWNHOME, UNION, LANDAREA, TAXVALUE

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.702	.303		48.588	.000
	UNION	.792	.109	.282	7.245	.000
	TAXVALUE	2.59E-10	.000	.449	9.197	.000
	LANDAREA	1.98E-02	.004	.241	5.052	.000
	OWNHOME	-1.6E-02	.004	-.145	-3.837	.000

a. Dependent Variable: LTTLPOL$

Table B5. Model 1 Regression 5 with EDUCATN Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.824[a]	.680	.673	.79324

a. Predictors: (Constant), EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	334.926	5	66.985	106.457	.000[a]
	Residual	157.935	251	.629		
	Total	492.861	256			

a. Predictors: (Constant), EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.923	.346		40.260	.000
	UNION	.685	.109	.244	6.302	.000
	TAXVALUE	2.38E-10	.000	.413	8.602	.000
	LANDAREA	1.99E-02	.004	.243	5.251	.000
	OWNHOME	-2.6E-02	.005	-.242	-5.606	.000
	EDUCATN	2.01E-02	.005	.183	4.236	.000

a. Dependent Variable: LTTLPOL$

Table B6. Model 1 Regression 6 with POPULATN Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.834[a]	.695	.688	.77513

a. Predictors: (Constant), POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	342.654	6	57.109	95.051	.000[a]
	Residual	150.207	250	.601		
	Total	492.861	256			

a. Predictors: (Constant), POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.533	.355		38.121	.000
	UNION	.645	.107	.230	6.030	.000
	TAXVALUE	1.28E-10	.000	.222	3.132	.002
	LANDAREA	1.30E-02	.004	.159	3.121	.002
	OWNHOME	-2.4E-02	.005	-.226	-5.339	.000
	EDUCATN	2.39E-02	.005	.218	5.019	.000
	POPULATN	8.76E-06	.000	.288	3.586	.000

a. Dependent Variable: LTTLPOL$

Table B7. Model 4 Regression 7 with MSA Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849[a]	.720	.713	.74398

a. Predictors: (Constant), MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	355.038	7	50.720	91.634	.000[a]
	Residual	137.823	249	.554		
	Total	492.861	256			

a. Predictors: (Constant), MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.664	.342		39.970	.000
	UNION	.573	.104	.204	5.531	.000
	TAXVALUE	1.42E-10	.000	.247	3.613	.000
	LANDAREA	1.36E-02	.004	.166	3.403	.001
	OWNHOME	-2.3E-02	.004	-.215	-5.273	.000
	EDUCATN	1.51E-02	.005	.137	3.049	.003
	POPULATN	7.10E-06	.000	.233	2.994	.003
	MSA	.659	.139	.182	4.730	.000

a. Dependent Variable: LTTLPOL$

Table B8. Model 1 Regression 8 with CRIMERTE1 Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CRIMERT 1, MSA, LANDARE A, UNION, OWNHOM E, EDUCAT N, TAXVALU E, POPULAT N[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.851[a]	.725	.716	.73925

a. Predictors: (Constant), CRIMERT1, MSA, LANDAREA, UNION, OWNHOME, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	357.332	8	44.666	81.734	.000[a]
	Residual	135.529	248	.546		
	Total	492.861	256			

a. Predictors: (Constant), CRIMERT1, MSA, LANDAREA, UNION, OWNHOME, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.150	.422		31.136	.000
	UNION	.544	.104	.194	5.227	.000
	TAXVALUE	1.35E-10	.000	.234	3.434	.001
	LANDAREA	1.31E-02	.004	.159	3.274	.001
	OWNHOME	-2.0E-02	.005	-.184	-4.243	.000
	EDUCATN	1.69E-02	.005	.154	3.382	.001
	POPULATN	7.66E-06	.000	.252	3.231	.001
	MSA	.662	.138	.183	4.782	.000
	CRIMERT1	2.61E-05	.000	.080	2.049	.042

a. Dependent Variable: LTTLPOL$

Table B9. Model 1 Regression 9 with CSECLR1 Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LTTLPOL$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.856[a]	.732	.723	.73066

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	360.998	9	40.111	75.134	.000[a]
	Residual	131.863	247	.534		
	Total	492.861	256			

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LTTLPOL$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.502	.439		30.789	.000
	UNION	.498	.104	.178	4.780	.000
	TAXVALUE	1.29E-10	.000	.223	3.301	.001
	LANDAREA	1.34E-02	.004	.164	3.406	.001
	OWNHOME	-2.0E-02	.005	-.185	-4.327	.000
	EDUCATN	1.63E-02	.005	.149	3.309	.001
	POPULATN	7.69E-06	.000	.253	3.279	.001
	MSA	.608	.138	.168	4.396	.000
	CRIMERT1	2.33E-05	.000	.071	1.844	.066
	CSECLR1	-7.9E-03	.003	-.092	-2.620	.009

a. Dependent Variable: LTTLPOL$

Table B10. Collinearity Statistics for final LTTLPOL$ model (Model 1)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	13.502	.439		30.789	.000		
	UNION	.498	.104	.178	4.780	.000	.784	1.275
	TAXVALUE	1.29E-10	.000	.223	3.301	.001	.238	4.204
	LANDAREA	1.34E-02	.004	.164	3.406	.001	.468	2.135
	OWNHOME	-2.0E-02	.005	-.185	-4.327	.000	.591	1.691
	EDUCATN	1.63E-02	.005	.149	3.309	.001	.536	1.864
	POPULATN	7.69E-06	.000	.253	3.279	.001	.182	5.481
	MSA	.608	.138	.168	4.396	.000	.738	1.354
	CRIMERT1	2.33E-05	.000	.071	1.844	.066	.725	1.379
	CSECLR1	-7.9E-03	.003	-.092	-2.620	.009	.883	1.133

a. Dependent Variable: LTTLPOL$

APPENDIX C: PERSONAL SERVICES EXPENDITURES REGRESSIONS

Table C1. Model 2 Regression 1 with UNION Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	UNION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.506[a]	.256	.253	1.23021

a. Predictors: (Constant), UNION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	133.003	1	133.003	87.882	.000[a]
	Residual	385.922	255	1.513		
	Total	518.925	256			

a. Predictors: (Constant), UNION

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.584	.118		114.753	.000
	UNION	1.457	.155	.506	9.375	.000

a. Dependent Variable: LPER$

Table C2. Model 2 Regression 2 with TAXVALUE Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	TAXVALUE, UNION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775[a]	.600	.597	.90412

a. Predictors: (Constant), TAXVALUE, UNION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	311.298	2	155.649	190.413	.000[a]
	Residual	207.627	254	.817		
	Total	518.925	256			

a. Predictors: (Constant), TAXVALUE, UNION

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.408	.088		152.694	.000
	UNION	.913	.120	.317	7.606	.000
	TAXVALUE	3.65E-10	.000	.616	14.769	.000

a. Dependent Variable: LPER$

Table C3. Model 2 Regression 3 with LANDAREA Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	LANDAREA, UNION, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796[a]	.633	.629	.86709

a. Predictors: (Constant), LANDAREA, UNION, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	328.706	3	109.569	145.732	.000[a]
	Residual	190.219	253	.752		
	Total	518.925	256			

a. Predictors: (Constant), LANDAREA, UNION, TAXVALUE

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.334	.086		155.784	.000
	UNION	.862	.116	.299	7.452	.000
	TAXVALUE	2.80E-10	.000	.473	9.478	.000
	LANDAREA	1.99E-02	.004	.237	4.812	.000

a. Dependent Variable: LPER$

Table C4. Model 2 Regression 4 with OWNHOME Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	OWNHOME, UNION, LANDAREA, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.808[a]	.653	.648	.84509

a. Predictors: (Constant), OWNHOME, UNION, LANDAREA, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	338.953	4	84.738	118.652	.000[a]
	Residual	179.972	252	.714		
	Total	518.925	256			

a. Predictors: (Constant), OWNHOME, UNION, LANDAREA, TAXVALUE

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.473	.312		46.383	.000
	UNION	.851	.113	.296	7.550	.000
	TAXVALUE	2.65E-10	.000	.447	9.109	.000
	LANDAREA	1.94E-02	.004	.230	4.803	.000
	OWNHOME	-1.6E-02	.004	-.144	-3.788	.000

a. Dependent Variable: LPER$

Table C5. Model 2 Regression 5 with EDUCATN Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.822[a]	.676	.669	.81884

a. Predictors: (Constant), EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	350.629	5	70.126	104.588	.000[a]
	Residual	168.295	251	.670		
	Total	518.925	256			

a. Predictors: (Constant), EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.681	.357		38.324	.000
	UNION	.743	.112	.258	6.616	.000
	TAXVALUE	2.43E-10	.000	.411	8.515	.000
	LANDAREA	1.95E-02	.004	.232	4.988	.000
	OWNHOME	-2.7E-02	.005	-.240	-5.527	.000
	EDUCATN	2.05E-02	.005	.182	4.173	.000

a. Dependent Variable: LPER$

Table C6. Model 2 Regression 6 with POPULATN Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.832[a]	.692	.685	.79970

a. Predictors: (Constant), POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	359.045	6	59.841	93.571	.000[a]
	Residual	159.880	250	.640		
	Total	518.925	256			

a. Predictors: (Constant), POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.274	.366		36.244	.000
	UNION	.700	.110	.243	6.349	.000
	TAXVALUE	1.29E-10	.000	.217	3.046	.003
	LANDAREA	1.23E-02	.004	.146	2.865	.005
	OWNHOME	-2.5E-02	.005	-.224	-5.257	.000
	EDUCATN	2.44E-02	.005	.217	4.968	.000
	POPULATN	9.14E-06	.000	.293	3.628	.000

a. Dependent Variable: LPER$

Table C7. Model 2 Regression 7 with MSA Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.847[a]	.718	.710	.76715

a. Predictors: (Constant), MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	372.385	7	53.198	90.394	.000[a]
	Residual	146.540	249	.589		
	Total	518.925	256			

a. Predictors: (Constant), MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.410	.353		38.044	.000
	UNION	.626	.107	.218	5.858	.000
	TAXVALUE	1.43E-10	.000	.242	3.527	.001
	LANDAREA	1.30E-02	.004	.154	3.140	.002
	OWNHOME	-2.4E-02	.005	-.213	-5.189	.000
	EDUCATN	1.52E-02	.005	.135	2.990	.003
	POPULATN	7.42E-06	.000	.238	3.034	.003
	MSA	.684	.144	.185	4.761	.000

a. Dependent Variable: LPER$

Table C8. Model 2 Regression 8 with CRIMERT1 Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CRIMERT1, MSA, LANDAREA, UNION, OWNHOME, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850[a]	.722	.713	.76244

a. Predictors: (Constant), CRIMERT1, MSA, LANDAREA, UNION, OWNHOME, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	374.760	8	46.845	80.586	.000[a]
	Residual	144.164	248	.581		
	Total	518.925	256			

a. Predictors: (Constant), CRIMERT1, MSA, LANDAREA, UNION, OWNHOME, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.887	.436		29.586	.000
	UNION	.596	.107	.207	5.556	.000
	TAXVALUE	1.36E-10	.000	.229	3.350	.001
	LANDAREA	1.24E-02	.004	.147	3.011	.003
	OWNHOME	-2.0E-02	.005	-.182	-4.172	.000
	EDUCATN	1.71E-02	.005	.152	3.319	.001
	POPULATN	7.99E-06	.000	.256	3.266	.001
	MSA	.687	.143	.185	4.812	.000
	CRIMERT1	2.65E-05	.000	.079	2.021	.044

a. Dependent Variable: LPER$

Table C9. Model 2 Regression 9 with CSECLR1 Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LPER$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854[a]	.730	.720	.75368

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	378.620	9	42.069	74.060	.000[a]
	Residual	140.305	247	.568		
	Total	518.925	256			

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LPER$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.249	.452		29.288	.000
	UNION	.550	.108	.191	5.110	.000
	TAXVALUE	1.29E-10	.000	.218	3.216	.001
	LANDAREA	1.28E-02	.004	.152	3.139	.002
	OWNHOME	-2.0E-02	.005	-.183	-4.255	.000
	EDUCATN	1.65E-02	.005	.147	3.244	.001
	POPULATN	8.02E-06	.000	.257	3.315	.001
	MSA	.632	.143	.170	4.427	.000
	CRIMERT1	2.37E-05	.000	.071	1.817	.070
	CSECLR1	-8.1E-03	.003	-.092	-2.607	.010

a. Dependent Variable: LPER$

Table C10. Collinearity Statistics for final LPER$ model (Model 2)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	13.249	.452		29.288	.000		
	UNION	.550	.108	.191	5.110	.000	.784	1.275
	TAXVALUE	1.29E-10	.000	.218	3.216	.001	.238	4.204
	LANDAREA	1.28E-02	.004	.152	3.139	.002	.468	2.135
	OWNHOME	-2.0E-02	.005	-.183	-4.255	.000	.591	1.691
	EDUCATN	1.65E-02	.005	.147	3.244	.001	.536	1.864
	POPULATN	8.02E-06	.000	.257	3.315	.001	.182	5.481
	MSA	.632	.143	.170	4.427	.000	.738	1.354
	CRIMERT1	2.37E-05	.000	.071	1.817	.070	.725	1.379
	CSECLR1	-8.1E-03	.003	-.092	-2.607	.010	.883	1.133

a. Dependent Variable: LPER$

APPENDIX D: POLICE OPERATING EXPENSES REGRESSION

Table D1. Model 3 Regression 1 with UNION Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	UNION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416[a]	.173	.170	1.26417

a. Predictors: (Constant), UNION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	85.358	1	85.358	53.412	.000[a]
	Residual	407.522	255	1.598		
	Total	492.881	256			

a. Predictors: (Constant), UNION

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.901	.122		97.834	.000
	UNION	1.168	.160	.416	7.308	.000

a. Dependent Variable: LOPEX$

Table D2. Model 3 Regression 2 with TAXVALUE Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	TAXVALUE, UNION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.741[a]	.548	.545	.93606

a. Predictors: (Constant), TAXVALUE, UNION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	270.322	2	135.161	154.255	.000[a]
	Residual	222.559	254	.876		
	Total	492.881	256			

a. Predictors: (Constant), TAXVALUE, UNION

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.722	.091		128.933	.000
	UNION	.613	.124	.219	4.934	.000
	TAXVALUE	3.71E-10	.000	.644	14.529	.000

a. Dependent Variable: LOPEX$

Table D3. Model 3 Regression 3 with LANDAREA Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	LANDAREA, UNION, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.773[a]	.597	.592	.88583

a. Predictors: (Constant), LANDAREA, UNION, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	294.354	3	98.118	125.041	.000[a]
	Residual	198.526	253	.785		
	Total	492.881	256			

a. Predictors: (Constant), LANDAREA, UNION, TAXVALUE

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.635	.087		133.056	.000
	UNION	.553	.118	.197	4.679	.000
	TAXVALUE	2.72E-10	.000	.471	9.010	.000
	LANDAREA	2.34E-02	.004	.285	5.534	.000

a. Dependent Variable: LOPEX$

Table D4. Model 3 Regression 4 with OWNHOME Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	OWNHOME, UNION, LANDAREA, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789[a]	.623	.617	.85905

a. Predictors: (Constant), OWNHOME, UNION, LANDAREA, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	306.913	4	76.728	103.973	.000[a]
	Residual	185.967	252	.738		
	Total	492.881	256			

a. Predictors: (Constant), OWNHOME, UNION, LANDAREA, TAXVALUE

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.896	.317		40.657	.000
	UNION	.541	.115	.193	4.721	.000
	TAXVALUE	2.55E-10	.000	.442	8.632	.000
	LANDAREA	2.28E-02	.004	.278	5.560	.000
	OWNHOME	-1.8E-02	.004	-.164	-4.125	.000

a. Dependent Variable: LOPEX$

Table D5. Model 3 Regression 5 with EDUCATN Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.799[a]	.639	.631	.84253

a. Predictors: (Constant), EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	314.709	5	62.942	88.669	.000[a]
	Residual	178.172	251	.710		
	Total	492.881	256			

a. Predictors: (Constant), EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.249	.367		33.347	.000
	UNION	.453	.116	.161	3.917	.000
	TAXVALUE	2.38E-10	.000	.412	8.077	.000
	LANDAREA	2.29E-02	.004	.279	5.694	.000
	OWNHOME	-2.6E-02	.005	-.244	-5.323	.000
	EDUCATN	1.67E-02	.005	.152	3.314	.001

a. Dependent Variable: LOPEX$

Table D6. Model 3 Regression 6 with POPULATN Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805[a]	.647	.639	.83393

a. Predictors: (Constant), POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	319.023	6	53.170	76.457	.000[a]
	Residual	173.858	250	.695		
	Total	492.881	256			

a. Predictors: (Constant), POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.957	.382		31.309	.000
	UNION	.422	.115	.150	3.669	.000
	TAXVALUE	1.55E-10	.000	.269	3.529	.000
	LANDAREA	1.78E-02	.004	.217	3.961	.000
	OWNHOME	-2.5E-02	.005	-.232	-5.095	.000
	EDUCATN	1.96E-02	.005	.178	3.815	.000
	POPULATN	6.55E-06	.000	.215	2.491	.013

a. Dependent Variable: LOPEX$

Table D7. Model 3 Regression 7 with MSA Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.816[a]	.666	.656	.81350

a. Predictors: (Constant), MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	328.096	7	46.871	70.825	.000[a]
	Residual	164.784	249	.662		
	Total	492.881	256			

a. Predictors: (Constant), MSA, OWNHOME, LANDAREA, UNION, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.070	.374		32.289	.000
	UNION	.361	.113	.129	3.185	.002
	TAXVALUE	1.67E-10	.000	.290	3.888	.000
	LANDAREA	1.83E-02	.004	.223	4.179	.000
	OWNHOME	-2.4E-02	.005	-.223	-4.994	.000
	EDUCATN	1.20E-02	.005	.109	2.217	.027
	POPULATN	5.12E-06	.000	.168	1.976	.049
	MSA	.564	.152	.156	3.703	.000

a. Dependent Variable: LOPEX$

Table D8. Model 3 Regression 8 with CRIMERT1 Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CRIMERT1, MSA, LANDAREA, UNION, OWNHOME, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.818[a]	.670	.659	.81026

a. Predictors: (Constant), CRIMERT1, MSA, LANDAREA, UNION, OWNHOME, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	330.065	8	41.258	62.844	.000[a]
	Residual	162.816	248	.657		
	Total	492.881	256			

a. Predictors: (Constant), CRIMERT1, MSA, LANDAREA, UNION, OWNHOME, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.593	.463		25.045	.000
	UNION	.334	.114	.119	2.926	.004
	TAXVALUE	1.61E-10	.000	.278	3.729	.000
	LANDAREA	1.78E-02	.004	.217	4.065	.000
	OWNHOME	-2.1E-02	.005	-.194	-4.081	.000
	EDUCATN	1.37E-02	.005	.124	2.497	.013
	POPULATN	5.65E-06	.000	.186	2.171	.031
	MSA	.567	.152	.157	3.736	.000
	CRIMERT1	2.42E-05	.000	.074	1.732	.085

a. Dependent Variable: LOPEX$

Table D9. Model 3 Regression 9 with CSECLR1 Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LOPEX$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.821[a]	.675	.663	.80559

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	332.583	9	36.954	56.941	.000[a]
	Residual	160.297	247	.649		
	Total	492.881	256			

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LOPEX$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.885	.484		24.582	.000
	UNION	.296	.115	.106	2.575	.011
	TAXVALUE	1.55E-10	.000	.269	3.618	.000
	LANDAREA	1.81E-02	.004	.220	4.157	.000
	OWNHOME	-2.1E-02	.005	-.195	-4.130	.000
	EDUCATN	1.32E-02	.005	.120	2.427	.016
	POPULATN	5.67E-06	.000	.186	2.192	.029
	MSA	.522	.153	.145	3.424	.001
	CRIMERT1	2.18E-05	.000	.067	1.569	.118
	CSECLR1	-6.5E-03	.003	-.076	-1.970	.050

a. Dependent Variable: LOPEX$

Table D10. Collinearity Statistics for final LOPEX$ model (Model 3)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	11.885	.484		24.582	.000		
	UNION	.296	.115	.106	2.575	.011	.784	1.275
	TAXVALUE	1.55E-10	.000	.269	3.618	.000	.238	4.204
	LANDAREA	1.81E-02	.004	.220	4.157	.000	.468	2.135
	OWNHOME	-2.1E-02	.005	-.195	-4.130	.000	.591	1.691
	EDUCATN	1.32E-02	.005	.120	2.427	.016	.536	1.864
	POPULATN	5.67E-06	.000	.186	2.192	.029	.182	5.481
	MSA	.522	.153	.145	3.424	.001	.738	1.354
	CRIMERT1	2.18E-05	.000	.067	1.569	.118	.725	1.379
	CSECLR1	-6.5E-03	.003	-.076	-1.970	.050	.883	1.133

a. Dependent Variable: LOPEX$

APPENDIX E: POLICE CAPITAL OUTLAYS EXPENDITURES REGRESSIONS

Table E1. Model 4 Regression 1 with UNION Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	UNION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.140[a]	.020	.015	1.46383

a. Predictors: (Constant), UNION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.001	1	10.001	4.667	.032[a]
	Residual	501.417	234	2.143		
	Total	511.417	235			

a. Predictors: (Constant), UNION

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.876	.151		72.038	.000
	UNION	.420	.195	.140	2.160	.032

a. Dependent Variable: LCAPOUT$

Table E2. Model 4 Regression 2 with TAXVALUE Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	TAXVALUE, UNION[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.261[a]	.068	.060	1.43013

a. Predictors: (Constant), TAXVALUE, UNION

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.867	2	17.434	8.524	.000[a]
	Residual	476.550	233	2.045		
	Total	511.417	235			

a. Predictors: (Constant), TAXVALUE, UNION

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.797	.149		72.326	.000
	UNION	.213	.199	.071	1.071	.285
	TAXVALUE	1.48E-10	.000	.231	3.487	.001

a. Dependent Variable: LCAPOUT$

Table E3. Model 4 Regression 3 with LANDAREA Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	LANDAREA, UNION, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.353[a]	.125	.113	1.38915

a. Predictors: (Constant), LANDAREA, UNION, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.720	3	21.240	11.007	.000[a]
	Residual	447.697	232	1.930		
	Total	511.417	235			

a. Predictors: (Constant), LANDAREA, UNION, TAXVALUE

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.686	.148		72.318	.000
	UNION	.135	.195	.045	.695	.487
	TAXVALUE	4.94E-11	.000	.077	1.019	.309
	LANDAREA	2.63E-02	.007	.288	3.867	.000

a. Dependent Variable: LCAPOUT$

Table E4. Model 4 Regression 4 with OWNHOME Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	OWNHOME, UNION, LANDAREA, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357[a]	.127	.112	1.39008

a. Predictors: (Constant), OWNHOME, UNION, LANDAREA, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65.048	4	16.262	8.416	.000[a]
	Residual	446.369	231	1.932		
	Total	511.417	235			

a. Predictors: (Constant), OWNHOME, UNION, LANDAREA, TAXVALUE

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.113	.535		20.768	.000
	UNION	.134	.195	.044	.686	.493
	TAXVALUE	4.34E-11	.000	.068	.885	.377
	LANDAREA	2.61E-02	.007	.286	3.828	.000
	OWNHOME	-6.0E-03	.007	-.052	-.829	.408

a. Dependent Variable: LCAPOUT$

Table E5. Model 4 Regression 5 with EDUCATN Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.393[a]	.154	.136	1.37143

a. Predictors: (Constant), EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	78.831	5	15.766	8.383	.000[a]
	Residual	432.586	230	1.881		
	Total	511.417	235			

a. Predictors: (Constant), EDUCATN, LANDAREA, UNION, OWNHOME, TAXVALUE

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.169	.633		16.074	.000
	UNION	2.53E-02	.196	.008	.129	.897
	TAXVALUE	1.86E-11	.000	.029	.379	.705
	LANDAREA	2.60E-02	.007	.285	3.864	.000
	OWNHOME	-1.8E-02	.008	-.158	-2.150	.033
	EDUCATN	2.36E-02	.009	.199	2.707	.007

a. Dependent Variable: LCAPOUT$

Table E6. Model 4 Regression 6 with POPULATN Entry

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.403[a]	.162	.140	1.36790

a. Predictors: (Constant), POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82.924	6	13.821	7.386	.000[a]
	Residual	428.493	229	1.871		
	Total	511.417	235			

a. Predictors: (Constant), POPULATN, EDUCATN, UNION, OWNHOME, LANDAREA, TAXVALUE

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.856	.666		14.810	.000
	UNION	-6.3E-03	.197	-.002	-.032	.974
	TAXVALUE	-6.1E-11	.000	-.096	-.839	.402
	LANDAREA	2.10E-02	.007	.231	2.809	.005
	OWNHOME	-1.7E-02	.008	-.146	-1.990	.048
	EDUCATN	2.67E-02	.009	.224	2.980	.003
	POPULATN	6.46E-06	.000	.189	1.479	.141

a. Dependent Variable: LCAPOUT$

Table E7. Model 4 Regression 7 with MSA Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	MSA, OWNHOME, LANDAREA, UNION, TAXVALUE, EDUCATN, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.405[a]	.164	.138	1.36959

a. Predictors: (Constant), MSA, OWNHOME, LANDAREA, UNION, TAXVALUE, EDUCATN, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83.743	7	11.963	6.378	.000[a]
	Residual	427.674	228	1.876		
	Total	511.417	235			

a. Predictors: (Constant), MSA, OWNHOME, LANDAREA, UNION, TAXVALUE, EDUCATN, POPULATN

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.871	.667		14.805	.000
	UNION	-2.1E-02	.198	-.007	-.104	.917
	TAXVALUE	-5.8E-11	.000	-.091	-.792	.429
	LANDAREA	2.11E-02	.007	.232	2.821	.005
	OWNHOME	-1.7E-02	.008	-.144	-1.962	.051
	EDUCATN	2.45E-02	.010	.206	2.576	.011
	POPULATN	6.03E-06	.000	.177	1.364	.174
	MSA	.183	.277	.045	.661	.510

a. Dependent Variable: LCAPOUT$

Table E8. Model 4 Regression 8 with CRIMERT1 Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CRIMERT1, LANDAREA, MSA, UNION, EDUCATN, TAXVALUE, OWNHOME, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.410[a]	.168	.139	1.36873

a. Predictors: (Constant), CRIMERT1, LANDAREA, MSA, UNION, EDUCATN, TAXVALUE, OWNHOME, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	86.152	8	10.769	5.748	.000[a]
	Residual	425.266	227	1.873		
	Total	511.417	235			

a. Predictors: (Constant), CRIMERT1, LANDAREA, MSA, UNION, EDUCATN, TAXVALUE, OWNHOME, POPULATN

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.290	.841		11.051	.000
	UNION	-5.1E-02	.200	-.017	-.253	.800
	TAXVALUE	-6.5E-11	.000	-.102	-.888	.376
	LANDAREA	2.07E-02	.008	.227	2.754	.006
	OWNHOME	-1.3E-02	.009	-.110	-1.379	.169
	EDUCATN	2.63E-02	.010	.221	2.728	.007
	POPULATN	6.64E-06	.000	.195	1.492	.137
	MSA	.199	.277	.049	.719	.473
	CRIMERT1	2.83E-05	.000	.081	1.134	.258

a. Dependent Variable: LCAPOUT$

Table E9. Model 4 Regression 9 with CSECLR1 Entry

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, TAXVALUE, EDUCATN, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.415[a]	.172	.139	1.36896

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, TAXVALUE, EDUCATN, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87.879	9	9.764	5.210	.000[a]
	Residual	423.538	226	1.874		
	Total	511.417	235			

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, TAXVALUE, EDUCATN, POPULATN

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.541	.881		10.835	.000
	UNION	-8.6E-02	.203	-.029	-.422	.674
	TAXVALUE	-7.0E-11	.000	-.110	-.955	.341
	LANDAREA	2.09E-02	.008	.229	2.785	.006
	OWNHOME	-1.3E-02	.009	-.112	-1.401	.163
	EDUCATN	2.60E-02	.010	.219	2.698	.007
	POPULATN	6.68E-06	.000	.196	1.500	.135
	MSA	.167	.279	.041	.598	.551
	CRIMERT1	2.62E-05	.000	.075	1.046	.296
	CSECLR1	-6.0E-03	.006	-.061	-.960	.338

a. Dependent Variable: LCAPOUT$

Table E10. Collinearity Statistics for final LCAPOUT$ model (Model 4)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	9.541	.881		10.835	.000		
	UNION	-8.6E-02	.203	-.029	-.422	.674	.802	1.247
	TAXVALUE	-7.0E-11	.000	-.110	-.955	.341	.277	3.615
	LANDAREA	2.09E-02	.008	.229	2.785	.006	.540	1.852
	OWNHOME	-1.3E-02	.009	-.112	-1.401	.163	.577	1.733
	EDUCATN	2.60E-02	.010	.219	2.698	.007	.557	1.794
	POPULATN	6.68E-06	.000	.196	1.500	.135	.215	4.651
	MSA	.167	.279	.041	.598	.551	.786	1.272
	CRIMERT1	2.62E-05	.000	.075	1.046	.296	.707	1.415
	CSECLR1	-6.0E-03	.006	-.061	-.960	.338	.898	1.113

a. Dependent Variable: LCAPOUT$

Table E11. Model 4: Total Memo Data Regression – Final Model and Collinearity Statistics

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LCAPOUT$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.688[a]	.474	.453	1.12852

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	263.858	9	29.318	23.020	.000[a]
	Residual	292.918	230	1.274		
	Total	556.776	239			

a. Predictors: (Constant), CSECLR1, OWNHOME, LANDAREA, MSA, UNION, CRIMERT1, EDUCATN, TAXVALUE, POPULATN

b. Dependent Variable: LCAPOUT$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	10.762	.722		14.907	.000		
	UNION	8.77E-02	.166	.028	.529	.597	.809	1.237
	TAXVALUE	1.43E-10	.000	.231	2.368	.019	.240	4.174
	LANDAREA	1.37E-02	.006	.156	2.245	.026	.473	2.114
	OWNHOME	-2.5E-02	.007	-.208	-3.283	.001	.569	1.759
	EDUCATN	2.40E-02	.008	.196	3.050	.003	.554	1.803
	POPULATN	6.57E-06	.000	.201	1.803	.073	.184	5.447
	MSA	.401	.229	.094	1.750	.081	.792	1.263
	CRIMERT1	6.55E-06	.000	.018	.319	.750	.689	1.452
	CSECLR1	-5.2E-03	.005	-.051	-1.012	.313	.898	1.113

a. Dependent Variable: LCAPOUT$

REFERENCES

Albright, R.R. (2004). The U.S. Department of Transportation's partnership experience: Implications for the future. *Journal of Labor Research*, 25(1), 43-54.

Argyris, C. (1960). *Understanding organizational behavior.* Homewood, IL: Dorsey Press.

Aronson, J. R. & Schwartz, E. (1996). *Management policies in local government finance* (4th Edition). Washington D.C.: International City/County Management Association.

Babbie, E. (2001). *The practice of social research*, (9th ed.). Belmont, CA: Wadsworth/Thompson Learning.

Babcock, L.C., Engberg, J. & Glazer, A. (1997). Wages and employment in public-sector unions. *Economic Inquiry,* 35, 532 – 543.

Banerjee, A. & Somanathan, R. (2001). A simple model of voice. *The Quarterly Journal of Economics,* February 2001, 189-227.

Barnum, D.T. & Helburn, I.B. (1982). Influencing the electorate: Experience with referenda on public employee bargaining. *Industrial and Labor Relations Review,* 35(3), 330-342.

Beckett-Camarata, J. (1993). An examination of the relationship between the municipal strategic plan and the capital budget and its effect on financial performance. *Journal of Public Budgeting, Accounting, & Financial Management,* 15(1), 23-40.

Belman, D., Heywood, J.S., & Lund, J. (1997). Public sector earnings and the extent of unionization. *Industrial and Labor Relations Review*, 50 (4), 610-628.

Bender, K. A., & Sloane, P.J. (1998). Job satisfaction, trade unions, and exit-voice revisited. *Industrial and Labor Relations Review*, 51, 222-239.

Benecki, S. (1978). Municipal expenditure levels and collective bargaining. *Industrial Relations,* 17 (2), 216-230.

Berman, E.M. (2002). *Essential statistics for public managers and policy analysts*. Washington, D.C.: CQ Press.

Black-Branch, J.L., & Lamont, W.K. (1998). Public sector asphyxiation: A time for action in collective bargaining. *Journal of Collective Negotiations in the Public Sector*, 27(3), 169-174.

Borjas, G. J. (1979). Job satisfaction, wages and unions. *The Journal of Human Resources,* 14, 21-40.

Bowen, F. & Blackmon, K. (2003). Spirals of silence: The dynamic effects of diversity on organizational voice. *Journal of Management Studies*, 40 (6), 1393-1417.

Brubaker, B. (2003). Health insurance premiums up 13.9%. *Washington Post*. September 10, 2003, p. E2.

Burpo, J., DeLord, R., & Shannon, M. (1997). *Police association power, politics, and confrontation.* Springfield, IL: Charles C. Thomas.

Cappellari, L., Lucifora, C., & Piccirilli, G. (2004). Union activism, workers' satisfaction and organizational change. *Labour: Review of Labour Economics and Industrial Relations*, 18 (1), 1-28.

Carrell, M. R., and Heavrin, C. (2004). *Labor Relations and Collective Bargaining,* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Carter D. L. & Sapp, A.D. (1992). A comparative analysis of clauses in police collective bargaining agreements as indicators of change in labor relations. *American Journal of Police,* 12(2), 17-46.

Chandler, T.D. & Gely, R. (1995). Protective service unions, political activities, and bargaining outcomes. *Journal of Public Administration Research and Theory,* 5(3), 295-318.

Chandler, T. D. & Judge, T. (1993). Collective bargaining with police unions: Characteristics of negotiators and bargaining strategies. *The Municipal Year Book 1993.* Washington, D.C.: International City/County Management Association.

Cohen, M.E. & Cohen, C.F. (1998). The impact of union status on general employee municipal pension plans in Florida. *Journal of Collective Negotiations in the Public Sector,* 27(2), 121-129.

Coleman, C.J. (1990). *Managing labor relations in the public sector*. San Francisco, CA: Jossey-Bass Publishers.

Colwell, L. (1994). Law enforcement collective bargaining and labor relations in Rabin, J., Vocino, T., Hildreth, W.B., Miller, eds. *Handbook of Public Sector Labor Relations*. New York: Marcel Dekker, Inc. pp. 267-295.

Coulson, R. (1993). *Police under pressure.* Westport, CT: Greenwood Press.

Cutcher-Gershenfeld, J. & Kochan, T. (2004). Taking stock: Collective bargaining at the turn of the century. *Industrial and Labor Relations Review,* 58(1), 3-26.

Davis, J.C., & Huston, J.H. (1995). Right-to-work laws and union density: New evidence from micro data. *Journal of Labor Research*, 16(2), 223-229.

Davis, J.C., & Huston, J.H. (1993). Right-to-work laws and free riding. *Economic Inquiry*, 31(1), 52-58.

DeCotiis, T.A., & LeLouarn, J. (1981). A predictive study of voting behavior in a representation election using union instrumentality and work perceptions. *Organizational Behavior and Human Performance,* 27(1), 103-118.

Decker, K.H. (1994). Public sector grievance arbitration procedures, in Rabin, J., Vocino, T., Hildreth, W.B., Miller, eds. *Handbook of Public Sector Labor Relations*. New York: Marcel Dekker, Inc.

DeSantis, V. S. & Durst, S.L. (1996). Comparing job satisfaction among public- and private-sector employees. *American Review of Public Administration,* 26, 327-344.

Devinatz, V.G. (1999). The real difference between the old unionism and the new unionism: A new strategy for U.S. public sector unions. *Journal of Collective Negotiations in the Public Sector*, 28(1), 29-39.

Dilts, D.A. (1993). Labor-management cooperation in the public sector. *Journal of Collective Negotiations in the Public Sector*, 22(4). 305-311.

Donald, C. G., Lyons, T.S., & Tribbey, R.C. (2001). A partnership for strategic planning and management in a public organization. *Public Performance and Management Review,* 25(2), 176-193.

Duffy, M.K., Ganster, D.C., & Pagon, M. (2002). Social undermining in the workplace. *Academy Management Journal,* 45 (2), 331-351.

Duncan Associates. (1998). *Orange County law enforcement impact fee update.* Study presented to Orange County Florida to update law enforcement impact fee ordinance. June 25, 1998 Draft.

Eaton, A.E., Gordon, M.E., & Keefe, J.H. (1992). The impact of quality of work life programs and grievance system effectiveness on union commitment. *Industrial and Labor Relations Review,* 45 (3), 591-604.

Falvey, A.A. (2002). *Adversaries and collaborators in collective bargaining negotiations between teacher unions and school districts: Perceptions of key stakeholders in Florida*

public schools (Doctoral dissertation, University of Central Florida, 2002). Dissertation Abstracts International, 63(05), 1641A.

Federal Bureau of Investigation. (2002). Crime in the United States, 2002: Uniform Crime Reports. Retrieved May 13, 2004 from: http://www.fbi.gov/ucr/ucr.htm

Feuille, P. & Delaney, J.T. (1986). Collective bargaining, interest arbitration, and police salaries. *Industrial and Labor Relations Review*, 39 (2), 228-240.

Feuille, P., Delaney, J.T., & Hendricks, W. (1985a). Police bargaining, arbitration, and fringe benefits. *Journal of Labor Research*, 6(1), 1-19.

Feuille, P., Delaney, J.T., & Hendricks, W. (1985b). The impact of interest arbitration on police contracts. *Industrial Relations*, 24(2), 161-181.

Feuille, P. & Anderson, J.C. (1980). Public sector bargaining: Policy and practice. *Industrial Relations*, 19(3) 309-324.

Finotti, J. (2003). Back door budget-buster. *Florida Trend*, 45 (12), 52-53.

Fiorito, J., Stepina, L.P., & Bozeman, D.P. (1996). Explaining the unionism gap: Public-private sector differences in preferences for unionization. *Journal of Labor Research*, 17 (3), 463-478.

Florida Attorney General. (2004). Municipalities, collective bargaining, authorized items. *Florida Attorney General advisory legal opinion*, Number AGO 77-72. Retrieved July 7, 2004 from http://myfloridalegal.com/ago.nsf/printview/34A73D4BA167204785256598005C30F6?OpenDocument

Florida Department of Financial Services. (2004). *PDF expenditure detail report of fiscal year ended 2002.* Retrieved June 23, 2004 from: http://localgovserver.dbf.state.fl.us/revexp/data02/Expenditures02Detail.pdf

Florida Department of Financial Services. (2000). *Uniform accounting system manual*. Retrieved June 23, 2004 from http://localgovserver.dbf.state.fl.us/UASManual2000.pdf

Florida Department of Law Enforcement. (2002). *2002 Criminal justice agency profile.* Retrieved June 4, 2004 from: http://www.fdle.state.fl.us/cjst/cjap/2002/ratio/pd.html

Florida Department of Law Enforcement. (2001). *2001 Criminal justice agency profile.* Retrieved June 4, 2004 from: http://www.fdle.state.fl.us/cjst/cjap/2001/pd/pd_pro_4.html

Florida Department of Law Enforcement. *County and municipal offense data.* Retrieved June 4, 2004 from: http://www.fdle.state.fl.us/FSAC/UCR/2002/cntyMun02annual.pdf

Florida Department of Revenue. (2002). *Property valuations and tax data.* Retrieved June 23, 2004 from: http://www.myflorida.com/dor/property/02FLpropdata.pdf

Florida Police Benevolent Association. (2004). *About the FPBA*. Retrieved July 3, 2004 from: http://www.flpba.org

Florida Public Employees Relations Commission. (2004). *A practical handbook on Florida's public employment collective bargaining law*. Retrieved July 2, 2004 from: http://199.250.30.167/programscommissions/public_employees_relations_comm/perc_quick_links/perc_publications

Florida Statutes. (2004a). Chapter 447: Labor Organizations-Public Employees, Section 447.309, Collective bargaining; approval or rejection. Retrieved July 7, 2004 from: http://www.doh.state.fl.us/IG/ADR/Florida_Laws/Statutes/FS447-309_Labor_Relations.pdf

Florida Statutes. (2004b). Chapter 447: Labor Organizations-Public Employees, Section 447.401, Grievance procedures. Retrieved July 7, 2004 from: http://www.doh.state.fl.us/IG/ADR/Florida_Laws/Statutes/FS447-309_Labor_Relations.pdf

Folger, R. & Cropanzano, R. (1998). *Organizational justice and resource management.* Thousand Oaks, CA: Sage Publications, Inc.

Folger, R. (1977). Distributive justice and procedural justice: Combined impacts of "voice" and improvement on experienced inequity. *Journal of Personality and Social Psychology*, 35, 108-119.

Forrester, J.P. (1993). Municipal Capital Budgeting: An examination. *Public Budgeting & Finance,* 13(2), 85-103.

Fossum, J. A. (1999). *Labor relations, development, structure, process,* (7th ed.). Boston, MA: Irwin McGraw-Hill.

Franco, D. M. (2002). *The effectiveness of the collaborative approach to collective bargaining, versus the traditional approach in selected Florida school districts* (Doctoral dissertation, University of Central Florida, 2002). Dissertation Abstracts International, 63(05), 1642A.

Fraternal Order of Police. (2004). *A brief history of the Fraternal Order of Police*. Retrieved July 3, 2004 from: http://www.grandlodgefop.org/

Freeman, R.B. (1996). Through public sector eyes: Employee attitudes toward public sector labor relations in the U.S., in Dale Belman, Morley Gunderson, and Douglas Hyatt, eds. *Public Sector Employment in a Time of Transition.* Madison, WI: Industrial Relations Research Association.

Freeman, R.B. (1988). Contraction and expansion: The divergence of private sector and public sector unionism in the United States. *Journal of Economic Perspectives,* 2 (2), 63-88.

Freeman, R.B. (1986). Unionism comes to the public sector. *Journal of Economic Literature*, XXIV, 41-86.

Freeman, R. B. (1982). Union wage practices and wage dispersion within establishments. *Industrial and Labor Relations Review,* 36, 3-21

Freeman, R. B. (1978). Job satisfaction as an economic variable. *The American Economic Review,* 68, 135-141.

Freeman, R.B. (1976). *Non-wage effects of trade unions in the labor market: An 'Exit-Voice' analysis*. Manuscript, February, 1976. Cambridge, MA: Harvard University.

Freeman, R. B., & Medoff, J.L. (1984). *What do unions do?*, NY: Basic Books.

Freeman, R.B. & Medoff, J. L. (1979). The two faces of unionism. *The Public Interest*, 54, 69-93.

Freeman, R.B. & Ichniowski, C. eds. (1988). *When public sector workers unionize.* Chicago: University of Chicago Press.

Freeman, R.J., & Shoulders, C.D. (1999). *Governmental and nonprofit accounting*. Upper Saddle River, NJ: Prentice Hall

Fryxell, G.R. & Gordon, M.E. (1989). Workplace justice and job satisfaction as predictors of satisfaction with union and management. *Academy of Management Journal*, 32(4), 851-866.

Gely, R. & Chandler, T.D. (1995). Protective service unions' political activities and departmental expenditures. *Journal of Labor Research,* 16(2), 171-185.

Gely, R. & Chandler, T.D. (1993a). Public sector unions' political activities and department expenditures. *Academy of Management Proceedings,* 1993, 299-303.

Gely, R. & Chandler, T.D. (1993b). Determinants of management's organizational structure in the public sector. *Journal of Labor Research*, XIV (4), 382-397.

Gershenfeld, W. & Gershenfeld, G. (1994). Scope of collective bargaining, in Rabin, J., Vocino, T., Hildreth, W.B., Miller, eds. *Handbook of Public Sector Labor Relations*. New York: Marcel Dekker, Inc.

Gianakis, G.A., & McCue, C.P. (1999). *Local government budgeting: A managerial approach*. Westport, CT: Quorum Books.

Goodwin, C.J. (2003). *Research in psychology: Methods and design,* (3rd ed.). Hoboken, NJ: John Wiley & Sons, Inc.

Gordon, M.E., & Denisi, A.S. (1995). A re-examination of the relationship between union membership and job satisfaction. *Industrial and Labor Relations Review*, 48(2), 222-236.

Gordon, M.E., Beauvais, L.L., & Ladd, R.T. (1984). The job satisfaction and union commitment of unionized engineers. *Industrial and Labor Relations Review,* 37 (3), 359-370.

Governmental Accounting Standards Board. (1997). *Codification of governmental accounting and financial reporting standards.* Norwalk, CT: GASB.

Greenberg, J. & Folger, R. (1983). Procedural justice, participation, and the fair process effect in groups and organizations. In P. Paulus (Ed.), *Basic group processes*. New York: Springer-Verlag.

Greene, J.D. (2005). *Public administration in the new century*. Belmont, CA: Thomson Wadsworth.

Groves, S.M. & Valente, M.G. (1994). *Evaluating financial condition: A handbook for local government.* Washington, D.C.: International City/County Management Association (ICMA).

Guiler, J.K. & Shafritz, J.M. (2004). Dual personnel systems – organized labor and civil service: Side by side in the public sector. *Journal of Labor Research*, 25(2), 199-209.

Gujatari, D.M. (2003). *Basic Econometrics*, (4th ed.). Boston, MA: McGraw-Hill/Irwin.

Haber, L.J. & Wellington, J. (2003). Public sector collective bargaining: Lessons from game theory. *Journal of Collective Negotiations in the Public Sector*, 30(2), 149-157.

Halvorsen, R. & Palmquist, P. (1980). The interpretation of dummy variables in semilogarithmic equations. *American Economic Review,* Vol. 70 (3), 474-475.

Hamner, T.H. & Berman, M. (1981). The role of noneconomic factors in faculty union voting. *Journal of Applied Psychology*, 66 (4), 415-421.

Hamner, W.C., & Smith, F.J. (1978). Work attitudes as predictors of unionization activity. *Journal of Applied Psychology*, 63 (4), 415-421.

Harlos, K.P. (2001). When organizational voice systems fail. *The Journal of Applied Behavioral Science*, 37(3), 324-342.

Hatry, H. P. (1972). Issues in productivity measurement for local governments. *Public Administration Review*, 32, 776-784.

Henry, N. (1998). *Public administration and public affairs,* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Herman, J.B. (1973). Are structural contingencies altering the job attitude-job relationship? *Organizational Behavior and Human Performance,* 27(1), 103-118.

Hersch, J., & Stone, J.A. (1990). Is union job dissatisfaction real? *The Journal of Human Resources*, 25, 736-751

Heywood, J. S., Siebert, W.S. & Wei, X. (2002). Worker sorting and job satisfaction: the case of union and government jobs. *Industrial and Labor Relations Review,* 595-609.

Hills, S. M. 1985. The attitudes of union and nonunion male workers toward union representation. *Industrial and Labor Relations Review,* 38, 179-194.

Hirschman, A.O. (1970). E*xit, voice, and loyalty*. Cambridge, MA: Harvard University Press.

Hsieh, C. & Pugh, M.D. (1993). Poverty, income inequality, and violent crime: A meta-analysis of recent aggregate data studies. *Criminal Justice Review,* 18(2), 182-202.

Hudson, P. (1994). An untitled, unpublished study. University of Central Florida Library.

Hundley, G. (1988). Who joins unions in the public sector? The effects of individual characteristics and the law. *Journal of Labor Research,* 9 (4), 301- 323.

Hurd, R.W. (2003). In defense of public service. *WorkingUSA,* 7(1), 6-25.

Ichniowski, C., Freeman, R.B., & Lauer, H. (1989). Collective bargaining laws, threat effects, and the determination of police compensation. *Journal of Labor Economics*, 7(2), 191-209.

Ichniowski, C. & Zax, J.S. (1991). Right-to-work laws, free riders, and unionization in the local public sector. *Journal of Labor Economics*, 9(3), 255-275.

Ichniowski, C. & Zax, J. (1988). The effects of public sector unionism on pay, employment, department budgets, and municipal expenditures. In Freeman, R.B. and C. Ichniowski, eds. (1988). *When public sector workers unionize.* Chicago: University of Chicago Press.

International Association of Chiefs of Police. (1977). *Critical issues in police labor relations.* Gaithersburg, MD: International Association of Chiefs of Police, Inc.

Iverson, R.D., & Currivan, D.B. (2003). Union participation, job satisfaction, and employee turnover: An event-history analysis of the exit-voice hypothesis. *Industrial Relations,* 42 (1), 101-105.

Johnston, P. (1994). *Success while others fail: Social movement unionism and the public workplace.* Ithaca, NY: ILR Press.

Jurkiewicz, C. L. & Brown, R. G. (1998). GenXers vs. boomers vs. matures. *Review of Public Personnel Administration*, 18, 18-37.

Juris, H.A. & Feuille, P. (1973). *Police unionism*. Lexington, MA: Lexington Books.

Kadleck, C. (2003). Police employee organizations. *Policing*, 26(2), 341-351.

Kaiser Family Foundation. (2005a). Employer Health Benefits 2004: Exhibit A: Increases in health insurance premiums compared to other indicators, 1988-2004. Retrieved March 8, 2005 from: http://www.kff.org

Kaiser Family Foundation. (2005b). Employer Health Benefits 2004: Exhibit B: Average annual premiums for covered workers, single and family coverage, by plan type, 2004. Retrieved March 8, 2005 from: http://www.kff.org

Kalleberg, A. L. (1977). Work values and job rewards: a theory of job satisfaction. *American Sociological Review,* 42, 124-143.

Katz, H. C., & Kochan, T. A. (2000). *An introduction to collective bargaining & industrial relations, (*2nd ed.). Boston, MA: Irwin McGraw-Hill.

Kaufman, B.E. (2004). What unions do: insights form economic theory. *Journal of Labor Research,* 25(3), 351-382.

Kearney, R.C. (2001). *Labor relations in the public sector*, (3rd ed.). New York: Marcel Dekker, Inc.

Kearney, R.C. (1994). Monetary impacts of collective bargaining in Rabin, J., Vocino, T., Hildreth, W.B., Miller, eds. *Handbook of Public Sector Labor Relations*. New York: Marcel Dekker, Inc. pp. 73-96.

Kearney, R.C. & Hays, S.W. (1994). Labor-management relations and participative decision making: Toward a new paradigm. *Public Administration Review*, 54(1), 44-51.

Kennedy, P. (2001). *A guide to econometrics*, (4th ed.). Cambridge, MA: The MIT Press.

Kennedy, P., (1981). Estimation with correctly interpreted dummy variables in semilogarithmic equations. *American Economic Review,* Vol. 71 (4), 801.

Klingner, D. E. (1993). What's so important about job satisfaction? *Review of Public Personnel Administration*, 4, 67-77.

Kochan, T.A. (1979). How American workers view labor unions. *Monthly Labor Review*, 102(4), 23-31.

Kochan, T.A. & Helfman, D.E. (1981). The effects of collective bargaining on economic and behavioral job outcomes, in *Research in Labor Economics*, R.G. Ehrenberg, ed., vol 4. p. 321-365. Greenwich, CT: JAI Press.

Koper, C. S., Maguire, E. R. & Moore, G. E. with contributions by D. E. Huffer. (2001) *Hiring and Retention Issues in Police Agencies: Readings on the Determinants of Police Strength, Hiring and Retention of Officers, and the Federal COPS Program.* Retrieved May 17, 2004 from: http://www.urban.org/pdfs/Hiring-and-Retention.pdf

Krefting, L.A., & Powers, K.J. (1998). Exercised voice as management failure: Implications of willing compliance theories of management and individualism for de facto employee voice. *Employee Responsibilities and Rights Journal,* 11(4), 263-277.

Kreisberg, S. (2004). The future of public sector unionism in the United States. *Journal of Labor Research*, 25(2), 223-232.

Leigh, D. E. (1986). Union preferences, job satisfaction, and the union-voice hypothesis. *Industrial Relations*, 25 (1), 65-71.

Levinson, H., Price, C.R., Munden, K.J, Mandl, H. J., & Solley, C.M. (1963). *Men, management and mental health*. Cambridge, MA: Harvard University Press.

Lewin, D., Feuille, P., Kochan, T.A., & Delaney, J.T. (1988). *Public sector labor relations: Analysis and readings* Lexington, MA: Lexington Books, D.C. Heath and Company.

Light, P. C. (2003). Great expectations. *Government Executive*, 35(4), 82.

Locke, E.A. & Schweiger, D. (1979). Participation in decision-making: One more look. In B. Staw, ed., *Research in Organizational Behavior. Greenwich, CT: JAI Press.*

Magenau, J.M., & Hunt, R.G. (1996). Police unions and the police role. *Human Relations,* 49(10) 1315-1343.

Magenau, J.M., & Hunt, R.G. (1989). Sociopolitical networks for police role-making. *Human Relations,* 42(6), 547-560.

Marshall, C., & Rossman, G.B. (1999). *Designing qualitative research* (3rd. Ed.). Thousand Oaks, CA: Sage Publications, Inc.

Masters, M. F. & Atkin, R. S. (1996). Financial and political resources of nine major public sector unions in the 1980s. *Journal of Labor Research,* 17 (1), 183 – 198.

Mauch, J.E., & Park, N. (2003). *Guide to the successful thesis and dissertation,* (5th ed.). New York: Marcel Dekker, Inc.

Meng, R. (1990). The relationship between unions and job satisfaction, *Applied Economics,* 22, 1635-1648.

Miller, P. & Mulvey, C. (1991). Australian evidence on the exit/voice model of the labor market. *Industrial and Labor Relations Review*, 45 (1), 44-57.

Moore, W.J. (1998). The determinants and effects of right-to-work laws: A review of the recent literature. *Journal of Labor Research*, 19(3), 445-469.

Morgan Jr., J.P. & Korstad, R.J. (1977). *Impact of collective bargaining on law enforcement and corrections.* St. Petersburg, FL: Public Safety Research Institute, Inc.

Nicholson-Crotty, S. & O'Toole, Jr., L.J. (2004). Public management and organizational performance: The case of law enforcement agencies. *Journal of Public Administration Research and Theory,* 14(1), 1-18.

O'Brien, K.M. (1996). The effect of political activity by police unions on nonwage bargaining outcomes. *Journal of Collective Negotiations in the Public Sector*, 25(2), 99-116.

O'Brien, K.M. (1994). The impact of union political activities on public-sector pay, employment, and benefits. *Industrial Relations,* 33(3), 322-345.

O'Brien, K.M. (1992). Compensation, Employment, and the political activity of public employee unions. *Journal of Labor Research,* 13(2), 189-203.

Public Employees Relations Commission. (2004). *A practical handbook of Florida's public employment collective bargaining law.* Retrieved June 30, 2004 from: http://199.250.30.167/programscommissions/public_employees_relations_comm/perc_quick_links/perc_publications

Perry, J. L., & Porter, L. W. (1982). Factors affecting the context for motivation in public organizations. *Academy of Management Review,* 7, 89-98.

Pfeffer, J. & Ross, J. (1980). Union-nonunion effects on wage and status attainment. *Industrial Relations,*19, 140-151.

Rees, D.I. (1991). Grievance procedure strength and teacher quits. *Industrial Labor Relations Review*, 45 (1), 31-43.

Riley, S.L. & Colby, P.W. (1991). *Practical government budgeting.* Albany, NY: State University of New York Press.

Robinson, S.L. (1996). Trust and breach of the psychological contract. *Administrative Science Quarterly,* 41 (4), 574-599.

Robinson, S.L., & O'Leary-Kelly, A.M. (1998). Monkey see, monkey do: The influence of work groups on the antisocial behavior of employees. *Academy of Management Journal*, 41 (6), 658-672.

Robinson, S.L. & Rousseau, D.M. (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behavior,* 15 (3), 245-259.

Rose, J. B., & Chaison, G.N. (1996). Linking union density and union effectiveness: The North American experience. *Industrial Relations*, 35 (1), 78 – 105.

Rousseau, D.M. (1995). *Psychological contracts in organizations.* Thousand Oaks, CA: Sage Publications.

Rousseau, D.M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal,* 2(2), 121-139.

Rubin, B. & Rubin, R. (2003). Municipal service delivery, collective bargaining, and labor-management partnerships. *Journal of Collective Negotiations*, 30(2), 91-112.

Rubin, B. & Rubin, R. (2001). *Labor-management partnerships: A new approach to collaborative management.* Retrieved June 29, 2004 from: http://www.businessofgovernment.org/pdfs/RubinReport.pdf

Rubin, I. (1998). *Class, tax, and power: Municipal budgeting in the United States*. Chatham, NJ: Chatham House Publishers, Inc.

Rubinstein, S.A. (2001). A different kind of union: Balancing co-management and representation. *Industrial Relations*, 40(2), 163-203.

Salerno, C.A., (1981). *Police at the bargaining table.* Springfield, IL: Charles C. Thomas Publisher.

Schein, E.H. (1965). *Organizational psychology*. Englewood Cliffs, NJ: Prentice-Hall.

Schlueb, M. (2003). Deputy sheriffs in Orange vote to join union. *Orlando Sentinel,* Saturday, November 15, 2003, B1 - B4.

Schriesheim, C.A. (1978). Job satisfaction. *Journal of Applied Psychology,* 63 (5), 548-52.

Schuman, D., (1988). *Public administration in the United States.* Lexington, MA: D.C. Heath.

Schwochau, S. (1987). Union effects on job attitudes. *Industrial and Labor Relations Review,* 40, 209-224.

Schwochau, S., Feuille, P. & Delaney, J. T. (1988). The resource allocation effects of mandated relationships. *Administrative Science Quarterly,* 33, 418 – 437.

Sewell, J.D. (2002). Managing the stress of organizational change. *FBI Law Enforcement Bulletin,* 71(3), 14-20.

Shafritz, J.M., Riccucci, N.M., Rosenbloom, D.H., & Hyde, A.C. (1992). *Personnel management in government: Politics and processes,* (4th ed.). New York: Marcel Dekker.

Skarlicki, D. P. & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology*, 82 (3), 434-443.

Sloane, A. A., & Witney, F. (2004). *Labor relations*, (11th ed.), Upper Saddle River, NJ: Prentice Hall.

Spatz, C. (2001). *Basic statistics: tales of distribution*. Belmont, CA: Wadsworth Thompson Learning.

Stanley, D.T. (1972). *Managing local government under union pressure*, Washington, DC: Brookings Institution.

Steel, B. S., & Warner, R. L. (1990). Job satisfaction among early labor force participants: unexpected outcomes in public and private sector comparisons. *Review of Public Personnel Administration,* 10, 4-22.

Thibault, E.A., Lynch, L.M. & McBride, R.B. (1998). *Proactive police management,* (4th ed.), Upper Saddle River, NJ: Prentice Hall.

Thomas, D.C., Au, K., & Ravlin, E. C. (2003). Cultural variation and the psychological contract. *Journal of Organizational Behavior,* 24, 451-471.

Thompson, J.A., & Bunderson, J.S. (2003). Violations of principle: Ideological currency in the psychological contract. *Academy of Management Review,* 28(4), 571-586.

Trejo, S. J. (1991). Public sector unions and municipal employment. *Industrial and Labor Relations Review,* 45 (1), 166 -180.

Troy, L. (2001). Twilight for organized labor. *Journal of Labor Research,* 22(2), 245-259.

Turnley, W.H., & Feldman, D.C. (1999). The impact of psychological contract violations on exit, voice, loyalty, and neglect. *Human Relations*, 52(7), 895-922.

Turnley, W.H., & Feldman, D.C. (1998). Psychological contract violations during organizational restructuring. *Human Resource Management,* 37(1), 71-83.

UCLA Academic Technology Services. (2004). The University of California, Los Angeles. *SPSS manual for testing mediation models.* Retrieved April 13, 2004 from: http://www.ats.ucla.edu/stat/spss/faq/mediation/SPSS%20manual.doc

United States Census Bureau. (2005). *American Factfinder Fact Sheet*. Retrieved January 25, 2005 from: http://factfinder.census.gov

United States Department of Labor, Bureau of Labor Statistics. (2004a). *Table 1: Union affiliation of employed wage and salary workers by selected characteristics*. Retrieved May 26, 2004 from http://www.bls.gov/news.release/union2.t01.htm

United States Department of Labor, Bureau of Labor Statistics. (2004b). *Table 2:Median weekly earnings of full-time wage and salary workers by union affiliation and selected characteristics*. Retrieved May 26, 2004 from http://www.bls.gov/news.release/union2.t02.htm

United States Department of Labor, Bureau of Labor Statistics. (2004c). *Table 3: Union affiliation of employed wage and salary workers by occupation and industry*. Retrieved May 24, 2004 from http://www.bls.gov/news.release/union2.t03.htm

United States Department of Labor, Bureau of Labor Statistics. (2004d). *Table 4: Median weekly earnings of full-time wage and salary workers by union affiliation, occupation and industry*. Retrieved May 24, 2004 from http://www.bls.gov/news.release/union2.t04.htm

United States Department of Labor, Bureau of Labor Statistics. (1999). *Table 3: Union affiliation of employed wage and salary workers by occupation and industry*. Retrieved May 24, 2004 from ftp://ftp.bls.gov/pub/news.release/History/union2.012599.news

United States Office of Management and Budget. (2005). *Metropolitan areas.* Retrieved January 25, 2005 from: http://www.whitehouse.gov/omb/inforeg/msa99.pdf

Unsinger, P.C., More, H.W. (1989). *Police management-labor relations.* Springfield, IL: Charles C. Thomas, Publisher.

Valletta, R.G. (1989). The impact of unionism on municipal expenditures and revenues. *Industrial and Labor Relations Review,* 42 (3), 430 – 442.

Valletta, R.G. & Freeman, R.B. (1988). The NBER public sector collective bargaining law data set. Appendix B in Freeman, R.B. and C. Ichniowski eds. (1988). *When public sector workers unionize.* Chicago: University of Chicago Press.

Van Dyne, L. & Le Pine, J.A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 41(1), 108-119.

Vogt, A.J. (2004). *Capital budgeting and finance: A guide for local governments.* Washington, D.C.: International City/County Management Association.

Williams, R.C. (1992). The determinants of police-specific contract clauses. *Journal of Collective Negotiations in the Public Sector*, 21(4), 299-321.

Wilson, J.Q. (1968). *Varieties of police behavior*. Cambridge, MA: Harvard University Press.

Witt, R.J. (1990). *Factors influencing variations in police budget allocations among cities.* Dissertation Abstracts International, 51(09), 3232A. (UMI No. 9102746).

Zax, J.S. (1989). Employment and local public sector unions. *Industrial Relations,* 28 (1), 21 - 31.

Zax, J.S. (1988). Wages, nonwage compensation, and municipal unions. *Industrial Relations,* 27 (3), 301 – 317.

Zhao, J. & Lovrich, N. (1997). Collective bargaining and the police: The consequences for supplemental compensation policies in large agencies. *Policing,* 20(3), 508-518.