AN ANALYSIS OF MUNICIPAL FINANCIAL BEHAVIOR USING

THE NATIONAL LEAGUE OF CITIES' TYPOLOGY

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AN ANALYSIS OF MUNICIPAL FINANCIAL BEHAVIOR USING THE NATIONAL LEAGUE OF CITIES' TYPOLOGY

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Jeffrey M. Blankenship, son of John M. and Mary Sue Blankenship, was born September 15, 1961, in Birmingham, Alabama. He graduated from Bob Jones High School in Madison, Alabama in 1979. He attended the University of Alabama in Huntsville and graduated cum laude with a Bachelor of Arts degree in Political Science in December 1984. He attended the University of Alabama – School of Law and graduated in May 1988. While working as an attorney, he attended the University of Alabama at Birmingham and graduated with a Master of Public Administration degree in August 1995. After being an attorney for 15 years, he entered the doctoral program in Public Administration and Public Policy at Auburn University in August 2003.

DISSERTATION ABSTRACT

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THE NATIONAL LEAGUE OF CITIES' TYPOLOGY

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Municipal finance research is an endeavor that requires the classification of cities for comparison purposes. Traditional methods of grouping cities have relied primarily on the form of government (mayor versus manager) or metropolitan status (central versus suburb) of the city. However, with changes in the governing structure and nature of cities, the continued validity of such classification methods has been called into question. The National League of Cities (NLC) recently developed a new typology that consists of six categories of cities: Spread cities; Gold coast cities; Metro centers; Meltingpot cities; Boomtowns; and Centervilles.

This dissertation uses the NLC typology to analyze the financial behavior of cities and to compare this classification method to other options, specifically classifications based on form of government, metropolitan status, and principal city status. The study focuses on demographic variables previously found to impact municipal financial behavior and several fiscal measures to compare the classification schemes and gauge the relative utility of each. The study tests seven hypotheses predicting significant differences between city types within the NLC typology and that the typology is a better means of classification. The analysis uses institutional, demographic, and financial data from the U.S. Bureau of the Census and the International City/County Management Association.

The findings of the study show there are statistically significant differences among the NLC typology categories for all financial measures analyzed based on analysis of variance and *t*-test methods. The results further confirm that the typology offers a method of classification that has greater explanatory power in predicting financial outputs among cities as shown through comparison of means and multiple-regression analysis.

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CHAPTER 1

INTRODUCTION

Municipal finance is an area that offers the opportunity to study politics at close quarters. By examining and understanding the decisions made by local community leaders concerning the raising and allocation of funds, one is able to gain insight into what is occurring at the level of government that most affects our daily lives. It also offers the chance to have a meaningful impact upon our communities, by providing the means to understand and even influence the policy outputs involving city taxing and spending practices. However, to fully understand the dynamics of municipal finance in a country with over 19,000 cities, the differences between these cities must be taken into consideration.

Since the time that researchers first began studying local financial behavior, there has been the need to group differing cities into separate categories to make better sense of their situations and the actions of local leaders. Over the years, the structures and practices of local communities have evolved to meet changing circumstances. Unfortunately, the methods that observers have used to frame the activities they were studying have not been adapted in ways that capture the changing nature of the entities under study.

The National League of Cities (NLC) and the Metropolitan Institute at Virginia Polytechnic Institute and State University recently published a study, entitled *From Meltingpot Cities to Boomstowns: Redefining How We Talk About America's Cities*, in which they identified a new typology of cities (NLC, 2005). Their primary purpose in developing this typology was to enhance local land use planning, but they noted that the typology should be applicable to other policy areas as well, such as finance. The study utilized factor and cluster analysis to analyze socioeconomic and other variables descriptive of 996 U.S. cities with populations between 25,000 and 500,000. This resulted in the classification of six different types of cities: Spread cities (41%), Gold coast cities (20%), Metro centers (9%), Meltingpot cities (14%), Boomtowns (8%), and Centervilles (8%). (The characteristics of each category will be discussed later in this chapter.)

This dissertation examines the new NLC typology to determine what, if any, patterns may be discerned concerning the fiscal behavior of these different types of cities. The purpose of the dissertation is to analyze, using a systems theory model (Easton, 1965a), whether the various types of cities produce different policy outputs manifested by fiscal behaviors involving expenditure, revenue, and debt. Various other policy inputs (political, institutional, and demographic) will be controlled to better measure the effects of the primary independent variable, type of city, upon the fiscal output measures.

Importance of Studying the Issue

This dissertation is significant in that it is the first such study to examine the new NLC typology as applied to local public fiscal behavior. The study also provides meaningful, up-to-date information about the changing nature of the fiscal behavior of cities.

There are many differences among cities, and these differences have a great impact upon their fiscal behaviors (Yinger, 1986). To understand what is occurring in different cities, one must be able to conceptualize the differences among them. Thus, a better means to distinguish between cities will provide more clarity in municipal finance research.

In order for municipal finance research to remain meaningful, it must adapt to the changing realities of evolving cities. It has been noted that:

> A review of the literature about cities suggests that widely-held conceptions about the municipal landscape rely on antiquated notions of city forms and assumptions about the functions cities perform. As such, distinctions between cities, such as central city, suburb, rural and metropolitan and non-metropolitan, and the policy prescriptions based on them are increasingly less useful to decision-makers and others attempting to understand and ameliorate local challenges. Thus, local policy makers need a new frame from which to better address their challenges. (NLC, 2005, p. 2)

For these reasons, the NLC typology, if it provides a meaningful framework from which fiscal outputs of cities can be compared, will be a much better classification method than the traditional means of grouping cities for purposes of public finance research.

Overview of Past Research

David Easton has been credited with bringing systems theory to political science and changing the way we view politics (Greene, 2005, p. 130). Under his systems theory, politics can be viewed as a process whereby environmental events result in inputs, consisting of demands and supports, entering the system and causing the system, through its structures and processes, to produce outputs, which are once again acted upon within the environment resulting in additional inputs through a continuous feedback loop (Easton, 1965a). Or, as Easton more succinctly described his model when he said, "in its elemental form a political system is just a means whereby certain kinds of inputs are converted into outputs" (p. 112). He further defines outputs as being "confined to those kinds of occurrences . . . described as authoritative allocations of values or binding decisions and actions implementing and relating to them" (p. 126).

Outputs result in outcomes which are the effects that the outputs have upon the environment in which the system is operating. The outputs are the actual decisions, policies, programs, expenditures, etc. that a political system produces. Whereas, outcomes are the effects of those outputs – or what they accomplish. It is through the feedback cycle that the decision makers become aware of the outcomes that their outputs have created.

Many of the studies to date dealing with municipal finance have noted that various factors (inputs) impact a city's ability to respond to the fiscal demands (inputs) required to meet the needs of its citizens (outputs). A growing amount of the literature on American cities has focused on the fiscal problems faced by the largest central cities in the nation's metropolitan areas (French, 2004; Ladd & Yinger, 1991; Rusk 2003).

Need for Better Classification

Classification is a process of grouping things into categories based upon established criteria. In the case of a typology, "each member of a particular group should be as similar as possible to others in the group, but as distinct as possible from the members of other groups" (NLC, 2005). Much of the existing literature on the fiscal behavior of cities has made comparisons between cities based upon the form of government and/or the metropolitan (metro) status of the cities -- whether a city is a central city, suburb, or independent city (e.g., Booms, 1966; Clark, 1968; Deno & Mehay, 1987; Dye & Garcia, 1978; French, 2004; Hays & Chang, 1990; Lineberry & Fowler, 1967; Morgan & Watson, 1995; Sherbenou, 1961; Stumm & Corrigan, 1998).

In order to understand cities, there must be a way to meaningfully group similar cities for comparison purposes, while distinguishing others. It has been noted that the traditional differences between the ways that cities with mayor-council and council-manager forms of government operate have become less distinct (DeSantis & Renner, 2002). Likewise, differences between central cities and suburbs are not as distinct as they once were. NLC argues: "'City' and 'suburb' in this respect are antiquated terms associated with an older economic structure in which central cities were the sole economic engines of metropolitan areas surrounded by residential suburbs" (NLC, 2005, p. 3).

Form of Government

In 1966, Bernard H. Booms first raised the questions of whether a city's form of government influenced the level of local public expenditures and whether city-manager forms of government were more efficient than mayor-council forms (Booms, 1966). This question has long been considered important because, “[i]f reform governments cannot deliver lower expenditures and taxes to their citizens, a major theoretical foundation of the reform movement is void” (Stumm & Corrigan, 1998).

Booms (1966) looked at 73 cities in Ohio and Michigan. In addition to measuring the impact of form of government, Booms included variables relating to income, intergovernmental transfers, and the location in which the cities were located. After performing a regression analysis, he found that cities with managers spent, on average, significantly less per capita on common functions than did cities with mayor-council governments.

Booms next addressed whether this finding meant that cities with managers were more efficient. To answer this question, he argued that one must first decide whether “this observed difference is due to demand (preference difference) or supply side (cost difference) phenomenona” (p. 192). Citing Wilson and Banfield (1964), he recognized that prior research suggested that a number of variables impacted the demand for services faced by city officials. It had been previously reported that variables impacting demand included: percent of population of foreign stock (negatively), percentage of home ownership (negatively), and percentage of population that was non-White (positively). However, he argued that it was most likely, in light of the law of large numbers, that individuals in both types of cities had the same desires and demands and, therefore, that it was the supply side factors (efficiency, training, politics, etc.) that resulted in the lower spending in city-manager cities.

Since Booms first broached the issue, several scholars have explored the subject of the effects of a city-manager form of government on spending patterns of cities.

Despite, or perhaps because of, the fact that there have been a number of studies reported within this literature, there have been conflicting findings concerning how a city's form of government affects its fiscal behavior.

Some research has found that the city-manager form of government results in lower public spending (Booms, 1966; Clark, 1968; Lineberry & Fowler, 1967; Stumm & Corrigan, 1998). Other studies have found the opposite, that city-manager cities have higher levels of spending (Cole, 1971; French, 2004; Nunn, 1996; Sherbenou, 1961). Further confusing the issue are studies concluding that the particular form of government has no impact upon the level of spending (Deno & Mehay, 1987; Dye & Garcia, 1978; Hays & Chang, 1990; Liebert, 1974; Lyons & Morgan, 1977; Morgan & Pelissero, 1980; Morgan & Watson, 1995). Perhaps an explanation for why there are conflicting findings on what effect the form of government has upon municipal spending is that the distinction between cities with managers and those with mayors is not as relevant as many have thought.

DeSantis and Renner (2002) identified subcategories within the two broad distinctions of council-manager and mayor-council cities. They found that some cities with elected mayors were employing chief administrative offices to perform the professional management functions traditionally done by managers in council-manager cities. They also noted that managers in council-manager cities were not immune from political concerns. Thus, they concluded that the traditional distinctions based upon form of government structure may no longer be a valid means to describe the reality found it cities, if it ever was one.

Functional Responsibility

In various studies on the effect of form of government upon municipal spending, one of the main areas of agreement seems to be that functional responsibility is a major determinant of city spending (Dye & Garcia, 1978; Farnham, 1986; Liebert, 1974). After recognizing the problem posed by comparing cities with varying functional responsibilities, Booms (1966) utilized the measure of "common functions" that included only those expenditures that were most commonly provided by nearly all of the cities. These services consisted of police, fire, interest on local debt, non-capital outlays for highways, sanitation, and public health, as opposed to "optional functions" the provision of which tended to vary more widely between cities. These optional functions included the provision of services such as education, hospitals, and welfare. He argued that utilizing only common function expenditures would "eliminate most of the variation . . . between cities" (p. 189). Subsequent researchers have dealt with the issue of differences in functions between cities by measuring and controlling for the levels of functional inclusiveness of a city (Dye & Garcia, 1978; Farnham, 1986; Liebert, 1974).

Demand Variables

Many of the studies to date have noted that various factors impact a city's ability to respond to the fiscal demands of its citizens, but usually these studies have only focused on the largest cities – those with at least 50,000 residents. There is a lot less emphases in the literature on the behavior of smaller cities. One of the reasons for this is that smaller cities tend to be less responsive to surveys concerning their practices and, therefore, it is harder to obtain data. An exception to this general trend is French (2004) who analyzed the effect of form of government in small cities and towns.

Concerning the demand for services within a city, various variables have been noted to have an impact upon the level of expenditures demanded in a community. In addition to whether the city is a suburb or not, the regional location, the level of intergovernmental revenue, population density, percent non-White, percent of homeownership, actual population size, percent of population under age 18, percent of population aged 65 and older, and per capita income have all been previously recognized as influencing local governmental spending.

It has been noted that cities with the following characteristics tend to spend more per capita: non-suburbs, those that receive greater levels of intergovernmental revenue, those with larger percentages of non-White residents, and those with higher percentages of citizens age 65 and older (Bergstrom & Goodman, 1973; Dye & Garcia, 1978; Farnham, 1986). On the other hand, the variables of population density, percent of homeownership, population size, percent of citizens under age 18, and the level of per capita income all tend to be negatively related to city spending (Bergstrom & Goodman, 1973; Booms, 1966; Dye & Garcia, 1978; Liebert, 1974). Also, it has been suggested that regional location influences demand for services and expenditures in cities. While others suggest it does not. (Dye & Garcia, 1978; Lineberry & Fowler, 1967; Wolfinger & Field, 1966).

Metropolitan Status

Another way in which cities have been classified in studies is by dividing them into groups depending upon the metro status of the city. That is, whether the city is a central city, suburb, or independent city. More recently the Office of Management and Budget (OMB) has developed a new classification, that of principal city, providing another means by which to compare cities (OMB, 2000). According to the OMB classification, within “each metropolitan statistical area, micropolitan statistical area, and NECTA [New England city and town areas] the largest place and, in some cases, additional places are designated as ‘principal cities’ under the official standards” (U.S. Bureau of the Census, 2003). This designation replaces the older central city concept, while allowing for more than one principal city per area (OMB, 2000).

It has traditionally been observed that central cities and suburbs differ in many ways. However, there have also been many changes in the composition of central cities and suburbs since they first began being studied. It has recently been noted in the literature that these differences are blurring. In particular, many central cities, long in decline, have began to make a comeback, particularly in the 1990s (Furdell, Wolman & Hill, 1005; Simmons & Lang, 2001; Sohmer & Lang, 2001). Suburbs have also been changing as they grow and become more like traditional central cities in many respects (Frey, 2001; Lang, 2004; Lang & Simmons, 2001; Mikelbank, 2004). For these reasons the old categorization of cities by metro status is not as meaningful as it once was.

Elasticity

In addition to the impact of forms of government and metro status, the concept of the elasticity of a city has been suggested to have an influence upon local fiscal behavior. Rusk (2003) was one of the first scholars who looked at the effects that a city’s “elasticity” has upon its ability to maintain fiscal health. In doing so, he focused on the cities’ ability or lack of ability to incorporate suburban growth into their borders and how that impacted their growth and welfare. Rusk measured the elasticity of a city by adding the city’s density ranking in 1950 and three times the ranking for its level of expansion as measured through the total increase in land area between 1950 and 2000, to arrive at an elasticity score. Rusk's study has been criticized for its lack of empirical evidence offered to support his conclusions and its failure to use "appropriate large-sample statistical tests of the elasticity hypothesis" (p. 348), but rather merely relying upon contrasting a small number of cities with one another (Blair, Stanley & Zhang, 1996).

National League of Cities' Report

In December 2005, NLC published its report setting out a new typology of cities (NLC, 2005). This new typology was intended to more accurately distinguish cities in an effort to foster better local decision making and provide a more useful "framework that clarifies the local context in which city officials operate" (p. iii). As noted previously, the authors of the report believe that the currently used methods of distinguishing between cities rely "on antiquated notions of city forms and assumptions about the functions cities perform" and that their typology provides "a more accurate reflection of the changing nature of the municipal landscape and the diversity that exists among cities" (p. 2).

The sample for the NLC study consisted of 996 cities with populations between 25,000 and 500,000. The study excluded cities with populations below 25,000 due to the difficulty of obtaining necessary data on such small cities. It also excluded all cities with populations above 500,000 to avoid outlier effects. The report noted that these largest cities constituted Mega-metro centers, totaling 30 in all. Following factor and cluster analyses, the study omitted 90 of the 996 cities because they did not fit well within the six identified classifications (C. McFarland, personal communication, October 3, 2006).

The factors considered in the analyses included: metropolitan and micropolitan designations; population size, density, and rate of growth; median age of residents and of housing stock; education levels; median household income; and percentages of the population who were under age 18, foreign-born, non-Hispanic Whites, homeowners, and living in an urban area. The analyses also considered region and whether the cities were principal cities or not.

The NLC report noted that Spread cities are generally located in metropolitan areas in the Midwest and South. They are characterized as having average population sizes and densities but low percentages of children and foreign-born residents.

Gold coast cities have greater percentages of older, wealthy, and educated residents. They are mostly suburbs and located in the West and Midwest, and they have greater percentages of homeowners.

Metro centers are larger, more diverse, core cities in the South and West. They are mainly principal cities, as opposed to suburbs, and they have large populations, densities, and older housing. They also have low median incomes and greater percentages of non-White residents.

Meltingpot cities are dense, diverse, and mostly located in the West, primarily in California. They have less educated, younger, more diverse residents who are overwhelmingly minorities and have more children. They also have the highest level of foreign-born residents.

Boomtowns are identified as having experienced rapid growth and low densities. They have newer housing and their residents tend to be wealthy with large percentages of homeowners and children. Most of these cities are suburbs in the West, South, and parts of the Midwest.

Finally, Centervilles are described as being mainly principal cities in micropolitan areas that tend to be located in the Midwest and parts of the South. They have the lowest populations, are the least dense, and have the lowest incomes and percentage of foreign-born residents.

Research Objectives

This dissertation describes and compares the taxing, spending, and debt levels of nearly one thousand different cities. It also looks at the question of significance of the NLC typology to these areas of local public finance. The unit of analysis for the study is individual cities, both within and outside metropolitan areas, as well as the newly designated micropolitan areas. The data are analyzed using descriptive and linear multiple-regression analyses produced with SPSS software.

This study uses Easton’s systems theory model to explain municipal fiscal behavior. It looks at how various input factors impact the ultimate financial outputs of cities as measured by the ways they tax, spend, and borrow. Specifically, it addresses the different policy outputs resulting from the various types of cities utilizing the NLC typology.

The principal research question to be address is whether the new NLC typology has any relevance concerning the fiscal output policies of municipalities. The dissertation examines and describes the financial characteristics of various types of cities in the NLC typology and explores how they are similar and different. It also uses multiple-regression analysis to test the significance of city type upon outputs of municipal fiscal behavior, such as levels and composition of expenditure, revenue, and debt. The study compares the level of expenditure (as well as the composition of expenditure on major functional categories such as common versus optional functions) and the revenue and debt structure of the different types of municipalities.

To generally address the principal research question of whether the NLC typology results in any significant differences in patterns concerning municipal financial outputs, the study addresses the following specific research questions and tests the related hypotheses:

1. What comparisons can be made about the average expenditure, revenue, and debt outputs between the different city types identified in the NLC report?

   HYPOTHESIS #1:

   There are significant differences between the expenditure, revenue, and debt outputs in different city types.

2. Are there differences in expenditure levels between the different city types?

   HYPOTHESIS #2:

   There are significant differences in expenditure levels between the different city types.

3. Are there differences in revenue levels and sources between the different city types?

HYPOTHESIS #3: There are significant differences in revenue levels between the different city types.

HYPOTHESIS #4: There are significant differences in revenue sources between the different city types.

4. Are there differences in total debt levels and type of debt between the different city types?

   HYPOTHESIS #5:

   There are significant differences in debt levels between the different city types.

   HYPOTHESIS #6:

   There are significant differences in the type of debt incurred by the different city types.

5. Are the NLC typologies better indicators of financial behavior of cities than prior categorizations?

   HYPOTHESIS #7: The NLC typology will provide a more statistically significant measure of the financial behaviors of cities than did prior categorizations as form of government and metro status.

By using the various output measures to look at the different city types in relationship to these specific research questions, the study provides more insight into the usefulness of the classifications.

Data and Methodology

The study looks at 936 cities that have been classified using the NLC typology. This includes all 906 of the cities classified in the NLC typology, plus those cities with more than 500,000 populations which were excluded from its analysis to prevent outlier effects. The 30 largest cities were included in this study to have a more complete analysis of the financial behavior of U.S. cities. Because the initial factor and cluster testing has been completed, there is no longer the problem of these cities producing an outlier effect in the creation of the typology. Inclusion of these 30 additional cities only slightly changes the breakdown of the city types as follows: Spread cities (40%), Gold coast cities (20%), Metro centers (9%), Meltingpot cities (13%), Boomtowns (8%), Centervilles (7%), and Mega-metro centers (3%).

The study uses both descriptive and regression analyses to illustrate the financial behavior of cities under consideration. The primary independent variable is the city type according to the NLC typology. The dependent variables are output measures involving either expenditure, revenue, or debt levels or the particular composition of these aspects of fiscal behavior. The various statistical tests also use control variables identified in prior studies as impacting the financial behavior of cities.

In addition, the study compares the findings of the influence of the NLC typology with an analysis of the same cities using factors previous examined in the existing literature on municipal fiscal behavior, such as the form of governmental structure and metro status, to see if the NLC typology provides a more meaningful classification when studying municipal fiscal behavior.

The data for this study include existing financial, institutional, and demographic information relating to the 936 cities, which are those with populations of 25,000 and above (with the year 2000 serving as the base year) included in the NLC typology, as well as the 30 largest cities that were not typed by the NLC study, but which will be included in this study and referred to as Mega-metro centers. This sample (see Table 1.1) provides a good representation of all cities in the United States that have 25,000 or more residents.

Table 1.1. Comparison of Sample Cities to All U.S. Cities
(Population of 25,000 and higher)

	Sample cities	US cities[a]
Total number of cities	936	1405
Council-manager form	66%	62%
Traditional classification:		
Suburbs	44%	55%
Central cities	48%	36%
Independent cities	8%	9%
Region:		
Northeast	13%	22%
Midwest	27%	26%
South	28%	24%
West	32%	27%

[a]Source: International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: International City/County Management Association, 2003.

The primary sources of financial data used in this dissertation are the City Finance Surveys produced by the U.S. Bureau of the Census (Census Bureau). These surveys contain comprehensive information relating to municipal tax, spending, and debt levels and composition. The primary sources of institutional data on the cities are the Forms of

Municipal Governments surveys conducted by the International City/County Management Association (ICMA). These surveys provide historical information concerning the form of government structure and the metro status of the cities. Finally, various demographic data come from both Census Bureau and ICMA sources. These data come primarily from the Census Bureau's 2002 Census of Governments and the 2000 Decennial Census. The 2002 Census of Governments is part of the City Finance Surveys, which are produced by the Census Bureau, every five years, in years ending in 2 and 7. These surveys contain very comprehensive information relating to municipal expenditure levels.

The values for the different dependant variables relating to taxing, spending, and debt practices of the cities are the dollar amounts that were listed for each of the cities in the Census Bureau's City Finance Surveys converted to per capita figures. Replicating the method used by Booms, common functions are defined based upon the Census Bureau's definition that includes police, fire, health, sanitation (sewerage and solid waste management), highways, and interest on debt (Booms, 1966). The variable "Common Function" is computed by adding the total expenditures for each of the six categories of services.

The primary independent variable used is the type of city according to the NLC's typology. The variable "Typology" indicates the classification for each city with Spread cities, Gold coast cities, Metro centers, Meltingpot cities, Boomtowns, and Centervilles coded as 1 through 6, respectively. The 30 largest cities or Mega-metro centers are coded as 7. Additionally, dummy variables have been created for each of the seven types of city with that type coded as 1 and all others as 0.

The form of government variable is coded as 1 for city-manager and 0 for all others (mayor-council and commission forms). The metro status is coded as 1 for central cities, 2 for suburbs, and 3 for independent cities. A dummy variable “Suburb” has been created and coded as 1 if the city is a suburb and 0 for all others.

The information used to determine the institutional variables of form of government and metro status comes from the ICMA’s 2001 Municipal Form of Government Survey (ICMA, 2002). The ICMA’s 2001 survey provides historical information on cities throughout the United States. For the relatively small number of the subject cities that did not respond to this survey, the information concerning their form of government and metro status was obtained from the 2003 *Municipal Yearbook* (ICMA, 2003).

Additionally, this study looks at the possible effects of various other independent variables upon the fiscal output behavior of cities based upon findings from previous research concerning demand and expenditure patterns. These variables include: intergovernmental revenue (measured as a percentage in dollars as total intergovernmental revenues divided by total revenues); region of the country where the city is located according to the Census Bureau’s regional classifications (with the West region serving as the control, and using three dummy variables representing the Northeast, Midwest, and South regions, where the identified region is coded as 1 and all others as 0); population density (measured as the actual 2000 population divided by land area in square miles for each city); percentage of the population that is non-White; percentage of owner-occupied housing units; the actual number of the population; percent of the population under the age of 18; percentage of the population age 65 and older;

percentage age 25 and over with bachelor's degree or higher; and the median household income figures, recorded for 1999, that were listed for each of the cities. The alternative classification of cities as principal cities is reflected by the variable "P-city", with principal cities coded as 1 and non-principal cities as 0.

Summary of Subsequent Chapters

The following chapters focus in more detail upon how the NLC typology is relevant to understanding financial decisions of the cities. Chapter two provides a review of the existing literature on the financial behavior of cities, focusing on the literature related to the different methods used for classification of cities and the utility of these classifications for explaining city outputs, including revenues, expenditures, and debt levels.

Chapter three explains the basic methodology and data used in this study and how the data were obtained. It also discusses the coding scheme and the rationale behind the coding choices in relation to the regression analyses performed.

Chapters four and five contain the findings of the study, relating them to the research questions and hypotheses presented earlier in this chapter. They also explain the significance of these findings.

Chapter six consists of a discussion and conclusion of the study and suggestions for future research expanding upon the topics covered within the dissertation. This chapter is followed by a list of references cited within the dissertation. Finally, an appendix is included setting out the list of cities analyzed in the dissertation.

CHAPTER 2

REVIEW OF THE LITERATURE

The fiscal behavior of cities has long been a measure by which researchers have sought to understand and explain the dynamics of local governmental policies. Examination of expenditure and revenue patterns for local governments has tended to focus on the impacts of the governmental structure or the functional roles performed by local governments. The analyses rely on a combination of systems theory and typology development as their theoretical base.

Systems Theory

David Easton has been credited with bringing systems theory to political science and changing the way we view politics (Greene, 2005, p. 130). Under his systems theory, politics can be viewed as a process whereby environmental events result in inputs, consisting of demands and supports, entering the system and causing the system, through its structures and processes, to produce outputs, which are once again acted upon within the environment resulting in additional inputs through a continuous feedback loop (Easton, 1957, 1965a). Or, as Easton more succinctly described his model when he said, "in its elemental form a political system is just a means whereby certain kinds of inputs are converted into outputs" (p. 112). He further defines outputs as being "confined to those kinds of occurrences . . . described as authoritative allocations of values or binding decisions and actions implementing and relating to them" (p. 126).

Outputs result in outcomes which are the effects that the outputs have upon the environment in which the system is operating. The outputs are the actual decisions, policies, programs, expenditures, etc. that a political system produces. Whereas, outcomes are the effects of those outputs – or what they accomplish. "In short, an output is the stone tossed into the pond and its first splash; the outcomes are the ever widening and vanishing pattern of concentric ripples" (Easton, 1965b, p. 352). It is through the feedback cycle that the decision makers become aware of the outcomes that their outputs have created.

Systems theory has been a model used to explain the fiscal behavior of local governments. Many of the studies to date dealing with municipal finance have noted that various input factors impact a city's ability to respond to the fiscal demands of its citizens. Variables such as form of government, metropolitan (metro) status of a city, and demographic characteristics of its population have all been examined as input factors that influence the political system of cities. In this regard, the outputs of local political systems include the various taxing, spending, and debt practices of cities.

Form of Government

Originally most American cities had a structure of government that was similar to the executive models found at the federal and state levels. Mayors were the chief executives, much like presidents and governors (Renner & DeSantis, 1998). However, the Reform Movement of the late 19th century sought to eliminate many of the abuses associated with partisanship and patronage, and the reformers were most successful at the local level of government.

According to Lineberry and Fowler (1967):

> The reformers' goal was to "rationalize" and "democratize" city government by the substitution of "community oriented" leadership. To the reformers, the most pernicious characteristic of the machine was that it capitalized on socio-economic cleavages in the population, playing on class antagonisms and on racial and religious differences. (p. 701)

The reformers were successful in getting many local governments to change the way they elected officials. The adoption of nonpartisan elections and at-large districts were very effective means of changing the nature of local politics and government. However, no reform technique was more effective or any more lasting in changing the nature of city government in America than the switch from mayor-council styles of leadership to the use of first the commission form of government and later the council-manager form, often referred to as the city-manager form (Lineberry & Fowler, 1967, pp. 701-703). The method by which the city-manager form of government was implemented so widely was through the development and adoption of model city charters that called for this type structure (Svara, 1989, 1990).

The primary motivation behind the effort to encourage the use of the city-manager form of government was the belief that such systems would be more efficient, less corrupt, and overall better for the cities. It was felt that having a professional city manager responsible for administrative supervision of city government would result in "a no-nonsense, efficient and business-like regime, where decisions could be implemented by professional administrators rather than by victors in the battle over spoils" (Lineberry & Fowler, 1967, p. 702).

By mid century, the city-manager form of government had become "a dominant system of municipal government in cities with populations under 50,000" (French, 2004, p. 194). This shift had a substantial impact upon city governance in the United States because, as the International City/County Management Association (ICMA) has reported, 95% of all municipalities in 1999 had populations of under 25,000 (French, 2004, p. 194). Thus, it was desirable for those researchers concerned with the fiscal behavior of cities to focus upon the impact that a city's form of government might have upon its taxing, spending, and debt practices.

Booms (1966) was the first scholar to specifically raise the questions of whether a city's form of government influenced the level of local public expenditures and whether the city-manager form of government was more efficient than the mayor-council form. To compare expenditure levels of cities, Booms used data from the 1962 Census of Governments, along with the 1963 edition of the *Municipal Year Book*.

He noted that a number of cities had changed their form of government by switching to an administrative structure headed by a city manager rather than a mayor, but that there was a lack of research concerning what effect this new form of government had upon a city's efficiency level and expenditures. He said it was plausible "to assume that these changes are made with some hope that the switch in form of government will have an impact on the level of local expenditures" (p. 188). He hoped his study would provide a better understanding of city expenditure and efficiency.

Booms proposed two hypotheses: 1) that a city's form of government was an important factor in determining its per capita expenditure level, and 2) that cities with the city-manager form of government were more efficient than those with the mayor-council form. He acknowledged that his hypotheses assumed all cities had the same level of services per capita, both in quality and quantity, and he admitted simply using lower costs in providing services was "a *very crude* measure of efficiency" (Booms, 1966, p. 188). Nevertheless, according to Booms, there were no better alternatives then available.

Booms recognized that there were variations between different cities in terms of their functional responsibilities. He felt that the majority of this variation was due to "differences in jurisdictional scope" (p. 189). As an example, he noted that some cities had the sole responsibility for providing public education, while education in most cities was the responsibility of a separate jurisdictional entity. To control for this variation in function, Booms focused his study on the measure of "common functions" that included only those expenditures that most of the cities in his study provided. Such functions included responsibility for police, fire, interest on local debt, non-capital outlays for highways, sanitation, and public health. He excluded "optional functions", such as education, hospitals, and welfare, because there were much wider variations in regard to responsibility for providing these functions among the cities under consideration. He felt that through "excluding what are optional functions for some city governments, a more accurate comparison of expenditures between cities can be made" (p. 189). (Several of the authors mentioned in this review of the literature dealt with the issue of the functional responsibility of cities. Generally, a discussion of such comments will be reserved for a later section of the review.)

Booms also recognized that a study of cities' expenditure levels had to take into account the extent of overlapping jurisdictions within the cities being compared. He assumed that larger cities had more overlapping of jurisdictions and, for this reason, he limited his sample to cities with populations of 100,000 and under. Additionally, he did not include any cities with populations less than 25,000 to make his sample more uniform in terms of city size (p. 189). He also noted that climate and regional differences had been found to influence the level of per capita expenditures in cities. However, he felt this was not a problem for his study, since he only looked at 73 cities in the states of Michigan and Ohio.

A number of variables were used to test his first hypothesis – that a city's form of government was an important factor in determining its per capita expenditure level. His dependent variable was the amount of public expenditures per capita on common functions. Nine different socio-economic factors were considered as independent variables. Booms utilized a dummy variable to indicate a city's form of government, with a 1 code representing manager cities and 0 representing mayor cities. He used another dummy variable to represent the state in which the city was located, with Ohio coded as 1 and Michigan as 0. He used a variable to represent the amount of state aid, or intergovernmental transfers per capita. To account for the possible effect of geographical location upon intergovernmental transfers, he used a compound variable composed by multiplying the state dummy variable by the variable for the amount of intergovernmental transfers.

Booms found that the variables of density and median family income were insignificant and excluded them from his final analysis. He also found that income distribution had a more significant affect upon city expenditure levels than did median income. Therefore, his final analysis included two income variables: the percentage of families earning less than $3,000 per year and the percentage of families earning more than $10,000 per year.

The findings of the study showed that manager cities spent significantly less per capita ($16.49) than did mayor cities. Thus, Booms concluded that, if the assumption that there were equal levels (in terms of quality and quantity) between the two categories of cities was accepted, “then in some sense manager cities might be considered more ‘efficient’ in that they supply the same per capita levels of public services at lower costs per capita” (p. 192). However, he noted that a key question still needed to be addressed: “whether this observed difference is due to demand (preference difference) or supply side (cost difference) phenomenona before any statements concerning the second stated conclusion regarding efficiency can be made” (p. 192). (This issue is discussed more fully later in this chapter under the section headed Demand Variables.)

Since 1966 when Booms first addressed the issue of the effects of a city-manager form of government on spending patterns of cities, several studies on this topic have been reported in the literature. These studies reveal conflicting findings, however, about whether and how a city’s form of government affects its fiscal behavior.

Manager Cities Are More Efficient

In addition to Booms, several scholars have found that the council-manager form of government results in lower spending by cities. Lineberry and Fowler (1967) studied the question of what impact a city’s political structures, including its form of government, had on the policy output measures of taxation and expenditure levels. Their study focused on whether reformed cities (measured by the presence of city managers, nonpartisan elections, and at-large constituencies) produced different taxation and expenditure patterns than did unreformed cities. They found the level of reformism in cities was negatively related to both taxing and spending policy outputs.

Lineberry and Fowler looked at a random sample of 200 out of the existing 309 American cities with 1960 populations of 50,000 and above. Their overall thesis was that “governments which are products of the reform movement behave differently from those which have unreformed institutions, even if the socio-economic composition of their populations may be similar” (p. 703).

The dependent variables they examined were expenditure and taxation patterns of cities with differing forms of government, either reformed or unreformed. These were measured as tax/income and expenditure/income ratios, where the total tax of the city was divided by the total personal income and, likewise, the total expenditures of the city were divided by the total personal income. Their primary independent variable was the level of reform of the city. They measured this on a scale that included the form of government of the city (reformed or unreformed), the type of elections (partisan or nonpartisan), and constituency type (district or at-large).

Lineberry and Fowler found that cities with managers taxed and spent less than cities with mayors. However, they also noted that their findings revealed not just differences in fiscal outputs, but contrasts between reformed and unreformed cities in terms of their responsiveness to social cleavages within their populations (pp. 707-708). In this regard, the authors stated:

> Essentially, then, there are two contrasting views about the consequences of municipal reform. One, the reformers' ideal, holds that institutional reforms will mitigate the impact of social cleavages on public policy. The other argues that the elimination of political parties and the introduction of other reforms will make social cleavages more, rather than less, important in political decision-making. (p. 709)

The authors hypothesized that there would be less of an impact from socio-economic cleavages on fiscal outputs in reformed (manager) than in unreformed (mayor) cities. As a result, they argued that socio-economic factors should be better at predicting a city's taxing and spending behavior in those cities with mayors than would be the case in cities with managers.

Lineberry and Fowler discovered that their study supported this proposition. Reformed cities were less responsive to cleavages than were the unreformed cities, as illustrated by the fact that the socio-economic variables under consideration explained only 42% of the variation in taxation policy in manager cities, but 52% in cities with mayors. Likewise, in expenditure policy, the socio-economic variables explained 30% of the variation in manager cities, and 42% in cities with mayors (pp. 709-710). The authors concluded that "when a city adopts reformed structures, it comes to be governed less on the basis of conflict and more on the basis of the rationalistic theory of administration" (p. 710).

Finally, Lineberry and Fowler tested the concept of reformism to determine whether it could be conceptualized as a continuous variable. They did this by using a four-point index ranging from least reformed to most reformed, depending upon how many of the indicators of reform the city exhibited. Cities with no reform aspects (city manager, nonpartisan elections, and at-large constituencies) were rated 1. Those with one such indicator were coded 2, those with two were assigned a code of 3, and those with all three were labeled 4.

They hypothesized that the "higher the level of reformism in a city, the lower its responsiveness to socio-economic cleavages in the population" (p. 713). They correlated both taxes and expenditures with the variables ethnicity, private school attendance, owner-occupancy, and median education. In doing so they found "there is a clear difference between cities which we have labeled 'most reformed' and 'least reformed'" (p. 714). While they noted this was a crude measure of reformism, they concluded that "some of the relationships we found are strongly suggestive that reformism may in reality be a continuous variable" (p. 713).

Clark (1968) analyzed 51 cities with populations between 50,000 and 750,000. His study used data gathered through surveys conducted by the National Opinion Research Center at the University of Chicago. The study also used data from the U.S. Bureau of the Census (Census Bureau) and the *Municipal Yearbook*. Clark was primarily concerned with the question of the effects that community structural characteristics had on decision-making patterns, but also addressed their effects on overall budget expenditures and urban renewal spending, both standardized by population size.

One of the variables in his study of community structure and decision-making was the Index of Governmental Reformism, which he acknowledged was similar to that used by Lineberry and Fowler. This measure consisted of a city's score involving three reform indicators: professional city manager; nonpartisan elections; and at-large electoral constituencies (p. 582). Each city was assigned a score based upon the number of these characteristics that was present in the community. Thus, the higher a city's score, the more reformed it was considered. Clark found there was a positive correlation between a city's score on the Index of Governmental Reformism and the level of centralization of decision-making. In fact, he found that "reform government has the strongest relationship with centralization of any variable in the model" (p. 586).

Stumm and Corrigan (1998) looked at the question of whether cities with professional managers had lower taxing and spending levels than did cities with mayors. They hypothesized that both the per capita property tax and expenditure levels in cities with managers are more likely to be lower than in cities without managers. Their study used detailed financial information obtained through a survey utilizing a random sample of more than 1,300 cities with populations above 10,000. The number of responding cities was only 149 (approximately 11.5%), but the authors argued that because the responding were similar to the overall population's seven population groups and four regions, survey results were generalizable. They further noted that it was the best data set available.

Initially, the authors compared cities with managers with those without and found that the only difference was that cities without managers received substantially larger amounts of state and federal intergovernmental revenues. However, they were unable to determine whether this was because leaders in cities without managers did a better job of locating and obtaining state and federal funds, or whether it was because cities with managers had lower spending and, thus, did not seek such funding (p. 347).

In testing their hypotheses, they found that cities with managers had significantly lower property taxes and lower general fund expenditures (as opposed to long-term expenditures such as debt repayment or capital maintenance), but did not have lower overall spending levels, than cities with mayors. They explained the different findings concerning general fund and overall expenditures by noting that a professional city manager's contributions to lower spending are more likely to show up in short-term expenditures, which is what the general fund is used for. This is attributable to the fact that city managers generally have short tenure in a particular job, and because the most likely area in which any savings might be realized by having a professional city manager would involve routine expenditures of the city, which are paid for from the general fund.

Mayor Cities Are More Efficient

In contrast to the studies discussed above, a number of published articles have reported research in which unreformed cities (those with a mayor rather than a manager form of government) were found to spend and tax at lower levels than reformed cities. Sherbenou (1961) examined the issue of the relationship between the city-manager form of government and social class. He studied 74 cities with populations of more than 2,500 in the Chicago suburbs. He measured the social class composition of the cities by ranking median housing values for each city. He found that those cities with higher housing values were more likely to have a city manager, whereas those with lower housing values were more likely to have an unreformed style of government.

One of the comparisons he made involved the per capita amounts of the cities' expenditures, property taxes, and debt. He found that, on average, cities with managers spent more, had lower debt, and higher property taxes than the cities without managers.

He attributed this finding to several factors, including that cities with managers had greater wealth and the idea that the manager form of government tended “to develop a public confidence in the efficiency and responsibility of municipal government” (p. 134), which leads to demands for more services and an increased willingness on the part of the city to spend. He reported that the comparisons in his study were in conformity with this belief.

Cole (1971) studied the relationships that both a city’s region and its form of government had upon fiscal outputs. Concerning the form of government, he looked at whether cities had a manager or mayor. He analyzed all U.S. cities with populations over 50,000 to determine the amount of variance in policies explainable by form of government and region. The dependent variables he considered included the proportion of employees under a civil service plan, per capita planning expenditures, and the number of requests received seeking urban renewal grants (p. 647).

One of his hypotheses was that the form of government would measurably influence a city’s policy outputs in terms of the degree to which outputs were considered more in the public interest. He hypothesized that measures of what was in the public interest included greater levels of the following policy outputs: the percentage of city employees covered by merit systems, amount of money requested from urban renewal programs, and the amount of money a city devoted to planning expenditures (p. 649).

His findings concluded that cities with mayors had slightly higher proportions of their employees covered by merit systems and had requested substantially more money per capita through urban renewal programs – contrary to what would be expected based on the idea offered in support of municipal reforms that reformed cities’ outputs are more in the public interest. However, he found that, conforming to the expectations of the reformers, the average amount of money spent on city planning was greater in city-manager cities (p. 650). Once he controlled for region, however, this relationship went away. He concluded that political structure alone was not an adequate indicator of a city's policy.

Nunn (1996) examined infrastructure policies of city-manager cities and strong-mayor cities, among other things, to determine whether the capital spending behavior of the different type cities varied. He studied seven cities in Texas that had a city-manager form of government and seven cities in Indiana that had the strong-mayor form. The reason he chose cities in Texas and Indiana, rather than all from the same state, was that Indiana did not have any city-manager cities, and in Texas the only two large cities with strong mayors were Houston and El Paso. Thus, an intrastate match of cities using data from analyses of infrastructure development policies that he had previously conducted was not an option (p. 108).

Nunn noted that he intentionally had not selected his sample cities as "matched" sets, which resulted in the cities varying in many significant ways. However, he argued that his use of regression analysis would minimize the effects of these differences and control for exogenous effects on the cities. His data concerning the cities' policies were obtained from interviews he had conducted with officials in each city, as well as written descriptions of the cities' policies. Data on the capital spending amounts for the cities were obtained from the Census Bureau's source tapes of Government Finances for the years 1981 through 1991 (p. 97).

The dependent variable used by Nunn was the amount of annual capital spending on water, sewer, and street facilities in each city. Annual capital spending consisted of total spending for construction, equipment, and land. He also examined the per capita amounts (p. 101). After analysis of the data, he found manager cities when compared to strong-mayor cities spent substantially more on capital facilities in terms of both total annual spending and per capita spending. Nunn concluded that variations in the cities' policy environments:

> Seem to affect capital spending for roads, sewers, and water in the cities. The Texas city manager cities spend more per capita on capital facilities than the Indiana strong mayor cities. Capital spending differences exist even after controlling for fundamental economic, fiscal, and demographic differences among the cities. (p. 93)

French (2004) examined the effect of form of government in small cities and towns. He looked at 559 cities and towns that had populations between 2,500 and 25,000, and divided the entities into those that had city managers and those that did not, but rather had an elected official responsible for administration.

His data were obtained through a mail survey sent to the mayors and managers of 1,000 cities and towns within his population range that were chosen through a random sample. These included all states, except Hawaii which only had two cities with a mayoral form of government and their populations were greater than his range.

French hypothesized that those local governments with city managers would have a lower level of per capita spending than those without. After testing with regression analysis and correlation methods, he found that the mean per capita expenditures were greater for cities with managers than for those without – the opposite of what had been expected.

He tested the cities and towns again, divided into regions, and found that the differences in means for per capita expenditures were insignificant for the Northeast and Midwest regions but remained significant for the South and West. Manager entities in the South had average spending of $1,201 per capita, compared with only $749 per capita in those without managers. In the West, he found that those with managers spent $1,575 per capita as opposed to only $1,114 in those without a manager.

Form of Government Makes No Difference

A number of scholars, in fact a majority of the published studies to date, have concluded that the form of government makes no difference in municipal expenditures. Liebert (1974), while not performing an analysis of municipal fiscal data of his own, discussed the issue of whether or not the governmental structure of a city had much effect upon it financial outputs. His basic conclusion was:

> Governmental types play no consistent intervening role between population characteristics and expenditure rates, except in the case of nonwhites. By controlling for inclusiveness, we found that middle class cities, especially wealthy ones, make a smaller effort for the public fisc than do poor, blue-collar cities. (p. 782)

According to Liebert, it was the functional scope of city government that had the most influence upon a city's fiscal output.

Lyons and Morgan (1977) addressed the issue of whether intergovernmental transfers of revenue to cities from state and federal governments had a stimulative effect or a substitution effect. That is, they wanted to know whether receiving revenues from state or federal governments would stimulate the cities to spend more of their own money, or whether such transfers would led to the cities spending the state or federal money on what otherwise would have been purchased with city money, thereby substituting the intergovernmental revenues for their own without an overall increase in spending.

They looked at 285 cities with populations of at least 50,000 over the period from 1950 to 1970. Their data were obtained from the 1952, 1962, and 1972 editions of the *County and City Data Book*. Their dependent variables were city general expenditure minus aid, in terms of both total per capita spending and per capita spending for public safety functions (police and fire). After performing multiple regression analysis, they found that the variable of intergovernmental revenue had a stimulative effect on expenditures (p. 1091).

Dye and Garcia (1978) looked at what role the variation of functional responsibility among cities played in municipal taxing and spending levels. Their study (focused on cities in 1970) looked at all the 243 central cities of Standard Metropolitan Statistical Areas (SMSAs) and 340 selected suburban cities within these metropolitan areas. All the central cities ranged in population from 50,000 to 7 million. The suburban cities were randomly selected from the 1,200 cities with populations of at least 10,000, which were located within SMSAs.

They theorized that cities could be either functionally comprehensive (meaning they performed most of 12 identified municipal functions) or else they could be functionally specialized. They concluded that functional responsibility was the main determinant of taxing and spending levels – with functionally comprehensive cities spending and taxing more than functionally specialized cities without negatively influencing spending patterns on common functions. They also concluded that "functionally comprehensive cities are more responsive to the social and ethnic character of their populations than functionally specialized cities" (p. 117).

In looking at the reformism of cities, Dye and Garcia noted that "reformed cities are generally less responsive to the social and ethnic character of their populations than unreformed cities" (p. 117). As part of their analysis of functional responsibility, they divided their cities into four groups. One group contained reformed cities that were functionally specialized. Another consisted of unreformed cities that were functionally specialized. Likewise, they had two groupings representing those cities that were reformed and functionally comprehensive and those that were unreformed and functionally comprehensive.

They performed additional analyses (controlling for functional responsibility by regressing each of the four groups) and compared the regression coefficients for reformed and unreformed comprehensive cities and then compared reformed and unreformed specialized cities. They found that among functionally specialized cities the unreformed cities were more responsive than reformed cities, and that spending increased in unreformed cities in response to increases in ethnicity and declined with increases in homeownership. However, among functionally comprehensive cities, they found the opposite – that "the spending patterns of functionally comprehensive *reformed* cities are more closely associated with social and ethnic variables (58% explained) than the spending patterns of functionally comprehensive *unreformed* cities (31% explained)" (pp. 117-118).

Morgan and Pelissero (1980) used a quasi-experimental, interrupted time-series design to test what policy effects a change in the form of government would have on cities' fiscal outputs measured by per capita levels of general revenue and various categories of expenditures. The primary independent variable was whether the city was reformed or not (as measured by the presence of a city manager, nonpartisan elections, and at-large representation). They examined 22 cities with populations of 25,000 and above.

The cities were divided into two groups – 11 in an experimental group and 11 in a matched control group. The experimental group was composed of eight cities that were totally unreformed, but changed to totally reformed sometime during the period from 1948 to 1973. The three other cities were totally reformed at the beginning, but dropped at least two of the elements of reformism during the period.

The control group consisted of cities that were matched to cities in the experimental group so that each had the same form of government at the beginning of the study. Additionally, the cities were matched in terms of having similar economic bases and similar per capita general revenues, as well as similar functional responsibilities. The cities in the control group did not change their form of government during the period.

The dependent variables consisted of per capita measures of seven revenue and expenditure variables including: general revenue, general expenditures, and expenditures on police, fire, highways, sanitation, and parks and recreation. For each of these variables data were obtained on each matched set of cities for a 10 year period surrounding the date of the change in form for the city in the experimental group – five years before the change and five years after.

It was proposed that there would be significant differences over time between the city undergoing a change in its form of government and the one that did not. They hypothesized that, after the changes occurred, cities which became more reformed would spend less and cities that became less reformed would spend more. Morgan and Pelissero concluded from their analysis, however, that changes in form of government "have almost no impact on changes in taxing and spending levels" (pp. 1001-1005).

Deno and Mehay (1987) replicated Booms' 1966 study – using data from his original sample of cities in Ohio and Michigan, as well as a national sample of cities – to examine what effects form of government had upon city expenditures for common functions (as well as employee wages and compensation). Noting that Booms had not specified any behavioral model underlying his demand and supply framework to explain differences in expenditures among cities, they used a median voter model to see whether spending patterns were different among cities with manager or elected mayor forms of government.

They hypothesized that the cities with different forms of government would have no significant differences in their expenditures because local government expenditure patterns were determined by the preferences of the median voter. Thus, under the median voter model "the municipal management structure should have no effect on the provision of local public goods" (p. 630). Deno and Mehay further summarized the theoretical basis of their expectations as follows:

> We assume that local governments are elected by majority rule and that political competition leads to the election of a governing group whose platform is consonant with the preferences of the median voter. If resident-voters are well informed concerning the costs and benefits of local government services, individual preferences are single peaked, and no strategic vote trading occurs, then candidates who are elected will bring the marginal tax price charged the median voter in line with the marginal benefit received from the services provided. Thus, the quantity of the local public good supplied will be equal to the quantity demanded by the median voter. (p. 630)

After replicating Booms' study measuring the effects of form of government on different cities' expenditures on common functions, they concluded that the "empirical results find no statistically significant differences between these two governmental forms, supporting the hypothesis that the median voter is decisive in budget determination" (p. 639).

Hays and Chang (1990) offered yet another approach to address the question of the relative efficiency of, and any differences between, the manager and mayor forms of government. According to them, whether there were differences in efficiency between manager and mayor forms of government was an empirical question, which should be answerable. To do so, they modeled municipal government as a multiproduct firm to measure the relative levels of efficiency between manager and mayor cities.

In their model, they hypothesized that a city's objective was to minimize costs of producing outputs, which they measured using expenditures on police protection, fire protection, and garbage collection. These were used because they "contribute the major portion of the operating budget for most municipalities" (p. 172).

They noted that there are basically only three arguments that support the conclusion that there are differences in efficiency between the manager and mayor forms of government: 1) that managers are better trained and will be more efficient; 2) that managers may receive compensation based on efficiency and will have more incentive to achieve greater efficiency; and 3) that managers may get away with being less efficient due to the shortage of qualified individuals for the positions and, therefore, mayor-led cities will be the most efficient. The alternative conclusion is that there are no differences in efficiency levels between managers and mayors (pp. 168-169). After analyzing data on the costs of input and output factors for these services, they concluded that "there is no apparent difference in the efficiency levels of the two municipal government structures" (p. 176).

Morgan and Watson (1995) examined the influence of mayoral strength and found that it was not a significant predictor of municipal expenditures. They analyzed 459 cities and primarily considered the role and influence of strong versus weak mayors in both the manager and mayor forms of government.

In comparing cities with differing forms of government, they found that in neither type of city did mayoral power exert a substantial effect on per capita spending (p. 237). Their study was also noteworthy in that it found no relationship between the functional scope of the city government and spending levels.

In addition to these conflicting findings over which form of government spends more or less, many scholars have noted how manager and mayor forms of government have been converging and blurring over time. It has been noted that the traditional differences between the ways that cities with mayor-council and council-manager forms of government operate have become less distinct (DeSantis & Renner, 2002; Hansell, 1999a, 1999b). In fact, these original types of governmental structure have morphed into a variety of hybrid forms (Frederickson & Johnson, 2001; Hansell, 1999a, 1999b; Renner & DeSantis, 1998).

Noting this evolution, Hansell (1999) has identified at least four variations in the mayor-council-manager forms of government: the classic form where members of the council elect one of themselves to be the mayor; where the mayor is elected by voters to be the leader of the council; where the mayor is elected by the voters with limited powers, such as the veto, nomination of the manager, or the right to review the budget before submission to the council; and where the mayor is elected separately from the council and has his or her own powers, but where there is a manager appointed by the mayor and confirmed or removed only by the council (p. 28).

Frederickson and Johnson (2001) note that a city's governmental structure is often modified as the desires of its citizens change over time. They report the rate at which such change is occurring has increased. These changes include not only cities changing from mayor-council to city-manager form, they also include cities that retain their basic form of government but adapt it with modifications. They also report that the mayor-council cities are changing more than cities with the council-manager form. Based upon their research, they postulate that "there is much more structural change occurring in American cities than is commonly understood" (p. 876).

Noting the change in municipal forms of government over the years, they identify three broad categories of cities. The pure political cities (traditional mayor-council cities) have no chief administrative officer, council members are paid and may have staff, at least one council member is elected by district, elections are partisan, and the mayor is directly elected and is a full-time position. The pure administrative cities (original council-manager cities) select the mayor from within the council, council elections are at large and nonpartisan, members of the council are not paid and do not have a staff, and the mayor is a part-time position paid less than $10,000 per year. Finally, they discuss what they call the adapted cities. These adapted cities have evolved into some combination of the first two types.

The adapted cities are further subdivided into three types depending upon which original type city they most resemble: totally adapted cities; adapted political cities; and adapted administrative cities. The authors note that fully adapted cities are by far the most common type. They have a chief administrative officer, an even mix of at-large and district elected council members, and a mayor who may serve either full- or part-time (p. 878). The adapted political and administrative cities fall in between the fully adapted cities and the two original types they were most like (pp. 876-882).

Frederickson and Johnson concluded:

> The formal legal description of a given city as either “council-manager” or “mayor-council” is less accurate than the particular structural variations that the citizens of a given community have chosen to adopt to make their government reflect citizens’ preferences and values. (p. 882)

No studies attempting to tie their typology involving adapted cities to revenue and expenditures patterns were found by the author of this dissertation.

Renner and DeSantis (1998) report a 1996 ICMA Municipal Form of Government survey found that “Regardless of form of government, 77.5% of responding municipalities report an appointed chief administrative officer position of professional management" (p. 30). This included the majority of all responding mayor-council type cities (p. 34). These changes suggest it would be beneficial to utilize a better means of classifying cities for purposes of comparing fiscal outputs.

The studies discussed above show there has been a lack of consensus regarding what effect, if any, form of government has on the fiscal output of cities. Many of them also illustrate how the traditional classification of cities based on governmental structure is not as meaningful as it once was due to modifications in the different structural arrangements used by cities. Both of these reasons support the need for a better method of classifying cities.

Functional Responsibility

In various studies of the effect of form of government on a city's fiscal behavior, one of the main areas of agreement seems to be that functional responsibility is a major determinant of city spending (Dye & Garcia, 1978; Farnham, 1986; Liebert, 1974). Functional responsibility or functional scope refers to the different type of services provided by a city. There are some common functions, such as police and fire protection, that most all cities provide. However, there are other functions, such as education and hospitals, which are not provided by most cities. Many of these optional functions are very costly. Because of this, comparisons involving the revenue, expenditure, and debt outputs of cities may be misleading if the variation in functional responsibility among cities is not considered.

After recognizing the problem posed by comparing cities with varying functional responsibilities, Booms (1966) utilized the measure of “common functions” that included only those expenditures that were most commonly provided by nearly all of the cities. These services consisted of police, fire, interest on local debt, non-capital outlays for highways, sanitation, and public health, as opposed to “optional functions” the provision of which tended to vary more widely between cities. These optional functions included the provision of services such as education, hospitals, and welfare. He argued that utilizing only common function expenditures would “eliminate most of the variation . . . between cities” (p. 189).

Subsequent researchers have dealt with the issue of differences among cities in the number and type of services provided by measuring and controlling for the level of functional inclusiveness of a city. Liebert (1974) discussed the issue of whether or not the governmental structure of a city had much effect upon it financial outputs. He concluded that the structure of a city’s government “plays no consistent intervening role between population characteristics and expenditure rates” (p. 782). Rather it was the functional scope of city government that had the most influence upon a city’s fiscal output.

Dye and Garcia (1978) examined variation in functional responsibility among cities and what impact such differences had on municipal taxing and spending levels. They theorized that cities could be either functionally comprehensive (meaning they performed most of 12 identified municipal functions) or else they could be functionally specialized. They concluded that functional responsibility was the main determinant of taxing and spending levels – with functionally comprehensive cities spending and taxing more than functionally specialized cities. They also concluded that "functionally comprehensive cities are more responsive to the social and ethnic character of their populations than functionally specialized cities" (p. 117).

Dye and Garcia also considered the interplay between functional responsibility and form of government within cities. As noted earlier, they divided their cities into four groups: functionally specialized cities, (1) those which were reformed and (2) those that were unreformed; and functionally comprehensive cities, (3) those which were reformed and (4) those that were unreformed.

They analyzed the cities after controlling for functional responsibility by regressing each of the four groups and compared the regression coefficients for reformed and unreformed comprehensive cities, as well as comparing reformed and unreformed specialized cities. They found that, among functionally specialized cities, the unreformed cities were more responsive than reformed cities, and that spending increased in unreformed cities in response to increases in ethnicity and declined with increases in homeownership. However, among functionally comprehensive cities, they found just the opposite. Expenditures in those that were reformed were found to have a stronger relationship to social and ethnic variables than did expenditures in the cities which were unreformed (pp. 117-118).

Morgan and Pelissero (1980) compared matched cities to determine whether those that had undergone a change in form of government would have different fiscal outputs than similar cities that had not undergone such a change. They found that the change in form of government did not result in any meaningful differences between the cities in the two groups.

In their study, they recognized the importance of taking into account the functional responsibilities of their cities. Explaining the need to ensure an adequate match between the two groups, they stated:

> Differences in spending assignments among cities must be considered when expenditures are analyzed. This is particularly true for school and welfare, since these two very expensive activities can account for about half the variation in total general municipal expenditures (Liebert, 1974, pp. 771-72) [in original]. Our experimental and control cities are perfectly congruent on school and welfare responsibilities. (p. 1001)

Farnham (1986) examined differences in the functional responsibility of cities and what impact they had on local expenditures. According to him, “Understanding and controlling for functional inclusiveness is necessary in all studies of local expenditure, revenue, and debt patterns, since these factors can vary solely from differences in the number of functions performed by a community” (p. 151).

Farnham studied financial and other data from the Census Bureau and ICMA relating to 2,500 communities with a population of at least 10,000 in 1975. His study compared the functional inclusiveness of the communities to differences in the various communities. He measured the functional responsibility by determining the number of functions over which each community had control. Control was determined by whether a community spent a nominal amount ($5,000) on the function.

The functions he considered included education, highways, welfare, hospitals, health, police, fire, sewerage, sanitation, parks and recreation, housing and urban renewal, and libraries. Farnham reported that over 90% of the communities studied had control over the functions of highways, police, fire, and parks and recreation. More than 50% of the communities did not perform any of the least-common functions, which included education, welfare, hospitals, and housing and urban renewal (pp. 153-154).

Using a median voter model of local spending practices, he found functional responsibility did indeed account for a large amount of the variation in spending behaviors of the communities. Specifically, he found cities in the Northeast performed more functions than other regions and that the variable for Northeast was reflective of the educational responsibilities of cities in the region (p. 157). Once functional responsibility was considered, cities in the West spent more than those in all other regions (p. 159). He concluded:

> While controlling for the education function alone is a reasonable proxy for overall functional inclusiveness, it does not account for all of the expenditure variation arising form the performance of the other least-common functions. Moreover, the impact of functional variation does differ among central and suburban cities within SMSAs and independent cities located outside these areas. (p. 163)

Deno and Mehay (1987) replicated Booms' study and, like Booms, only used common functions to measure the expenditures in the cities under consideration. Their work was discussed above.

Hayes and Chang (1990) recognized the importance of variation in functional responsibility among cities when examining expenditure levels and, therefore, they only looked at the services of police, fire, and garbage collection. They justified the use of only these three services by noting they accounted for more than 40% of total general expenditures in the cities, once the less common expenditures on education, interest payments, and unallocables were excluded (p. 172).

Morgan and Watson (1995) examined the influence of mayoral strength and found that it was not a significant predictor of municipal expenditures. They included a measure of functional assignment to account for differences in the types of services provided among the different cities. Cities were rated on a scale of 0 to 3 depending upon how many of the major functions of school, welfare, and hospitals were allocated at least 10% of their direct spending. They found no relationship between the functional scope of the city government and spending levels.

The literature discussing functional responsibility points out the variation that exists among cities in terms of the type of services they provide. It also illustrates the need to control for these differences to obtain meaningful comparisons when examining different cities.

Demand Variables

Various variables have been noted to have an impact on the amount of public services demanded in a community and, thus, the level of municipal taxes, expenditures, and debt. It has been noted that cities with the following characteristics tend to spend more per capita: non-suburbs, those that receive greater levels of intergovernmental revenue, those with larger percentages of non-White residents, and those with higher percentages of citizens age 65 and older (Bergstrom & Goodman, 1973; Dye & Garcia, 1978; Farnham, 1986). On the other hand, the variables of population density, percent of homeownership, population size, percent of citizens under age 18, and the level of per capita income all tend to be negatively related to city spending (Bergstrom & Goodman, 1973; Booms, 1966; Dye & Garcia, 1978; Liebert, 1974). Also, it has been suggested that regional location influences demand for services, expenditures, and structure and function in cities (Cole, 1971; Dye & Garcia, 1978; Farnham, 1986; French, 2004). Others suggest it does not (Lineberry & Fowler, 1967; Stumm & Corrigan, 1998).

Citing Wilson and Banfield (1964), Booms (1966) recognized that prior research suggested that a number of variables impacted the demand for services faced by city officials. It had been previously reported that variables impacting demand included: percent of population of foreign stock (negatively), percentage of homeownership (negatively), and percentage of population that was non-White (positively). However, Booms argued that it was most likely, in light of the law of large numbers, that individuals in both types of cities had the same desires and demands and, therefore, that it was the supply side factors (efficiency, training, politics, etc.) that resulted in the lower spending in city-manager cities (p. 193).

Lineberry and Fowler (1967) looked at a number of independent variables that the authors believed represented “a variety of possible social cleavages which divide urban populations – rich vs. poor, Negro vs. White, ethnic vs. native, newcomers vs. old-times, etc.” (p. 703). These variables were divided into three groups: 1) measures of population size and growth, 2) indicators of social class, and 3) measures of social homogeneity.

The specific variables used to measure population size and growth were the actual population figures and the percent of change in the population between 1950 and 1960 (as reported in the 1950 and 1960 censuses). It was noted that larger cities tend to be unreformed and that cities with faster growth rates tend to be reformed in terms of having a manager and both nonpartisan and at-large elections. However, none of these measures of size and growth was found to be important in predicting taxation and expenditure levels (p. 704).

The authors utilized the following variables relating to a city's residents as a means to represent social class: median income; percentages with incomes both under $3,000 and over $10,000; percentage of high school graduates; median years of education; percent of homeownership; and percentage of white-collar workers. They found that reformed cities and unreformed cities differed little in terms of these characteristics of social class, noting “what is striking is not the differences between the cities but the similarities of their class compositions” (pp. 704-706).

They also looked at the effect that the degree to which a city was middle class (measured by income, education, and occupation) had upon fiscal outputs. They hypothesized that the more middle class a city was, the higher its taxes and spending would be. However, they found the data did not support this hypothesis and, in fact, showed that “the relationships between middle class variables and outputs are, if anything, stronger in the reformed cities than in their unreformed counterparts” (p. 711). They referred to prior research that suggested reformed institutions tended to “maximize the power of the middle class” (p. 712). In addition, they found a negative relationship between the percentage of residents in a city who were homeowners and the fiscal output measures. They also found that unreformed (mayor) cities exhibited this negative correlation more so than did the reformed (manager) cities (p. 712).

Additionally, the study used three measures of social homogeneity: percentage of the population who were native born of foreign-born or mixed parentage, utilized for ethnicity; percentage of the population who were non-White, indicating race; and percentage of elementary school children attending private schools, used to measure religious homogeneity (p. 706). No significant difference was found between reformed and unreformed cities in terms of racial composition, but the authors noted the data showed reformed cities "appear somewhat more homogeneous" (p. 706) in terms of ethnicity and religion.

The study revealed a positive relationship between ethnic and religious homogeneity and the level of the fiscal outputs, except for the variable non-White, which tended to have only a very slight correlation to changes in the output measures. However, the other two variables representing homogeneity (ethnicity and private school attendance) had a positive relationship to both taxing and spending behaviors (pp. 712-713).

In summarizing their findings, Lineberry and Fowler noted social class variables had a negative association to outputs, but the class variables failed to show any significant influence. Homogeneity indicators of private school attendance (their indicator for religious homogeneity) and ethnicity were positively correlated to the fiscal behaviors. They stated that "when we related all twelve of our independent variables to outputs in various city types that the associations were much weaker in cities we have labeled reformed" (p. 712).

Clark (1968) addressed the question of the effects that community structural characteristics had on decision-making patterns. He noted that the more reformed the form of government in a community was, the more centralized it was in decision-making. When he looked at the relationship between decision-making patterns and policy output levels, he noted that there was support in the existing literature for the idea that the degree to which decision-making was centralized (i.e., reformed government) was positively associated with higher output levels as measured by city expenditures. However, his study found the opposite – that more centralized decision-making systems resulted in lower levels of overall budget expenditures and urban renewal spending by cities (p. 587).

He explained these seemingly contradictory findings by what he called the "fragility" of the various output policies being considered. He noted that prior research supporting a positive association between decision-making centralization and expenditures had involved the policy areas of fluoridation, school desegregation, and urban renewal, which he said were, at the time, more fragile decisions than the outcome measures he was studying. This was because issues such as urban renewal and school desegregation become less fragile over time as the newness of, and resistance to, the policy in a community diminishes. Clark maintained urban renewal programs had recently become more accepted by communities and, therefore, they were less fragile policy issues at the time of his study than they had been during the period of the previous studies mentioned above (pp. 587-588).

Clark noted that, in a community where decision-making is less centralized, individuals and groups have a better chance of getting policymakers to forego spending on fragile policy areas; whereas, in more centralized decision-making cities, the leadership of the city can more easily overcome or ignore such opposition. Because of this, he opined that cities with centralized decision making may spend more on fragile issues. However, he stated that less fragile policy issues are not as easily thwarted in a community because there is less opposition and, therefore, compromise is more likely to resolve competition between competing interests. He argued that this may actually result in less centralized decision-making cities spending more on non-fragile issues to satisfy various interests. On the other hand, more centralized decision-making cities should be less susceptible to such pressure, and there may be lower spending on these less fragile issues like overall budget expenditures and established urban renewal programs (pp. 587-588).

Clark also looked at the effect of a number of other variables on expenditures. He found the variable that was most strongly associated with the level of expenditures in a community was the percentage of residents who were members of the Roman Catholic Church, which had a positive association. He also found, as noted in prior research, the variables personal income, assessed property values, and level of education were positively associated with expenditure. His study demonstrated two variables were not important in influencing the level of expenditures, even though prior research suggested they were. These were measures of industrial activity and percentage of the area's population living in the central city. Finally, he found the level of poverty and total size of the population both had a positive association, while economic diversification had a negative association (p. 590).

Bergstrom and Goodman (1973) looked at the influence on demand for public goods resulting from various demographic variables. They found that the percentage of homeownership and rate of growth both had a negative association with expenditures on public goods in a community. They reasoned that homeowners may have less demand because renters do not realize they pay property tax for their housing and, therefore, may be more supportive of greater services even if it results in higher property taxes. They speculated that the growth rate may be negatively related to demand because cities undergoing rapid growth may not have reached "political equilibrium" or consensus to support more services, or that cities with declining populations may have higher spending due to inertial effects (pp. 289-290).

They also found that communities with a high employment-residential ratio and a larger percentage of residents over age 65 had a positive influence on public spending. They theorized that communities with larger employment-residential ratios may have to spend more on public goods to attract and retain higher commercial and industrial activity. They also stated that the fact that individuals over age 65 spend a greater share of current income on consumption than younger people might explain why they have a higher demand for public services (pp. 289-290).

Liebert (1974) replicated the study of Lineberry and Fowler concerning the impact of various socio-economic variables upon expenditure levels of cities, but Liebert controlled for functional inclusiveness in his analysis. He used "the presence or absence of city responsibility for public schools" (P. 780) to control for inclusiveness of city services. Liebert noted that Lineberry and Fowler had concluded that "more middle class cities spent less, and cities with higher proportions of ethnic and religious minorities spent more" (p. 779). After controlling for functional inclusiveness, Liebert used the same measures of middle class as Lineberry and Fowler – the percentages of the population reflecting homeownership, median income, median education, and white collar occupations. He also found that each of these middle-class measures was negatively related to expenditures.

However, Liebert found the opposite of Lineberry and Fowler's conclusions concerning the effects on public spending of the variables percentage of ethnic and religious minorities. He found a negative relationship between the expenditures of cities and their percentage of these minorities (pp. 779-781). He explained that this finding could be due to the fact that ethnic and religious minorities are no longer the type of minorities whose needs and interests support higher levels of public services and expenditures. He noted they have tended to move out of poverty in the central cities. He further noted that, while the prior study had found only a very slight correlation between the variable non-White and changes in fiscal output measures, his analysis showed there was a positive correlation between the percentage of non-Whites and expenditures (pp. 781-782). He attributed this discrepancy to the fact that the variable non-White in his study was more indicative of Black.

Lyons and Morgan (1977), in addition to analyzing the effects of intergovernmental transfers, considered a number of other independent variables in their examination of municipal spending, including: reform structure of the city; median family income; percent employed in manufacturing; population size; percent non-White; median age; percent of homeownership; and whether or not the city government operated schools.

They found that the variable of whether or not a city operated schools was the second most influential determinant of city expenditures, behind only the amount of intergovernmental revenue received. In addition to their findings concerning the effects of intergovernmental revenues, operation of schools, and reform status of the government, they found correlations between the level of per capita city expenditure and the variables of median income (positive), manufacturing (negative), percent non-White (positive), age of the population (positive), and homeownership (negative). The remaining variables examined were found to be insignificant in terms of expenditures (pp. 1092-1093).

Dye and Garcia (1978) examined the importance of functional responsibility and form of government on city taxing and spending levels. In doing so, they also considered a number of other independent variables and what effect they had upon both revenues and expenditures. The variables they considered included: population size; growth rate; density; percentages of youth, aged, homeownership, non-White, and ethnicity; median property values; median family income; educational attainment; and occupational status. They found, in the case of tax revenues, the variables ethnicity and median family income had a positive correlation, whereas the variable of homeownership had a negative relationship. As far as total expenditures, they found variables of size of the population, density, ethnicity, and property value had positive correlations, and the variable of homeownership had a negative effect. The other variables considered were not statistically significant (p. 113).

In their study of the effects of mayoral power on per capita city expenditures in reformed and unreformed cities, Morgan and Watson (1995) analyzed the influence of several other variables, including intergovernmental revenues, and percentages of homeownership, high school graduates, elderly, and non-White. They found that intergovernmental revenue and percentage of high school graduates both had a major effect in both type cities, exhibiting a positive relationship to spending. In the mayor form, the percentage of non-White had a substantial and positive effect on spending, while it was insignificant in manager cities. In manager cities, the percentage of elderly had a positive effect, while homeownership had a negative correlation (pp. 237-238).

A final variable that has been noted to have an effect upon city spending is the region of the country in which the city is located. This is especially relevant in national samples of cities. (Most studies of city fiscal behavior have used the regional designations of the Census Bureau: Northeast, Midwest, South, and West.) There have been different conclusions concerning the impact of the regional location of a city, with some researchers claiming findings that geographic region influences a city's outputs, others have found it does not, and still others maintaining that controlling for region was really controlling for other factors that were in fact the determinants of the outputs.

Wolfinger and Field (1966) examined the relationship between the middle-class ethos theory as set out in prior research by Banfield and Wilson (1963). The ethos theory was summarized as a:

> Theory of "public-regardingness" and "private-regardingness" which states that much of what Americans think about the political world can be subsumed under one or the other of these conflicting orientations and that the prevalence of one ethos over the other influences the style, structure, and outcome of local politics. (p. 306)

Wolfinger and Field noted that Banfield and Wilson "attribute these two ethics to different elements in the population and hypothesize that a number of political forms and policies are manifestations of each ethos" (p. 306). These political forms and policies included the middle-class ethos of public regarding views that tended to support the efforts of the municipal reform movement calling for city managers, nonpartisan election, and at-large representation and placed emphasis on efficiency, strong executives, honesty, planning, etc. In contrast, the immigrant ethos was private regarding and tended to oppose such reform efforts. Prior research suggested there were various demographic factors which reflected an individual's or group's support for one ethos or the other (pp. 306-307).

In their study, Wolfinger and Field sought to test "the associations between these hypothesized consequences and the demographic characteristics that are said to be the bases of the two ethics" (p. 306). They used the variables form of government, election method, and representation type to indicate whether a city was reformed or not. They utilized the primary independent variable of percentage of residents of foreign stock, along with other independent variables such as social class, income, and education (pp. 310-312). Wolfinger and Field found that the differences between reformed and unreformed cities disappeared once they controlled for region, and they concluded "one can do a much better job of predicting a city's political form by knowing what part of the country it is in than by knowing anything about the composition of its population" (p. 320).

Lineberry and Fowler (1967) questioned Wolfinger and Field's findings that differences between reformed and unreformed cities went away once region was controlled for. They based their different view concerning the impact of region by noting:

> Since regions have had different historical experiences, controls for region are essentially controls for history, and more specifically, historical variation in settlement patterns. The problem with this reasoning, however, is that to "control" for "region" is to control not only for history but for demography as well: to know what region a city is in *is* to know something about the composition of its population. Geographical subdivisions are relevant subjects of political inquiry only because they are differentiated on the basis of attitudinal or socio-economic variables. The South is not a distinctive political region because two surveyors named Mason and Dixon drew a famous line, but because the "composition of its population" differs from the rest of the county. (p. 706)

They noted that regions were "differentiated on precisely the kinds of demographic variables" (p. 706) which are related to governmental reform.

> Cities in the Midwest, for example, have a much higher proportion of home ownership (64%) than cities in the Northeast (44%), while northeastern cities have more foreign stock in their population (27%) than the Midwest (16%). Hence, to relate ethnicity to political reformism and then to "control" for "region" is in part to relate ethnicity to reformism and then to control for ethnicity. Consequently, we have grave reservations that the substitution of the gross and unrefined variable of "region" for more refined demographic data adds much to our knowledge of American cities. (pp. 706-707)

Based upon this, they argued that form of government and demographic characteristics of cities did make a difference in policy outputs of cities – regardless of region.

Cole (1971) studied the impact of both a city's region and its form of government on its fiscal outputs. He found that form of government has a slight impact on the policy outputs of cities, although not necessarily in the manner intended by the reform movement. However, after controlling for region this relationship went away. Based upon this, he concluded that political structure alone was not an adequate indicator of a city's policy.

Dye and Garcia (1978) looked at the variation of functional responsibility among cities and what role this played in municipal taxing and spending levels. They also considered the region in which the city was located. They found there were significant differences in functional responsibilities of cities depending up regional location.

> The cities of the northeastern United States are more functionally comprehensive municipal governments. In contrast, western cities are more specialized municipal governments. . . . Southern and Midwestern cities fall between these extremes. Doubtlessly, variations in the historical development of municipal government in these regions helps explain the regional contrasts." (p. 108)

Farnham (1986) examined the impact of functional responsibility on local expenditure taking geographic region into consideration. He found cities in the Northeast region performed more functions than other regions, and he concluded that "the Northeast variable largely reflects the educational responsibilities of communities in that region" (p. 157). He also found that cities in the West region spent more than any of the other three regions:

> It is interesting to note that the "big spender" image of eastern cities is not supported by the results of this research. Cities in other parts of the country spend

less than do communities in the West. This may reflect differences in tastes and attitudes toward government spending among regions of the country or institutional variations. (p. 159)

Stumm and Corrigan (1998) found cities with managers had lower taxing and spending levels than did cities with mayors. In their study, they controlled for regional location by using dummy variables for three of the four regions and reported “region was not a significant factor and inclusion of these variables did not improve the performance of the model” (p. 346).

French (2004) examined the effect of form of government in small cities and towns. After testing with regression analysis and correlation methods, he found manager cities had greater expenditures than those with mayors. He tested his model again after dividing the cities into regions and found that the differences in expenditures among the types of cities were insignificant for the Northeast and Midwest regions but remained significant for the South and West. He found that, overall, cities in the Midwest and West spent more than those in the Northeast and South.

Prior research has identified a number of variables that have an impact on the fiscal behavior of cities. To have a reliable test of any association between a particular factor and a city’s financial outputs, one must take into account and control for variables believed to have an influence on fiscal policy.

Metropolitan Status

Another way in which cities have been classified is by dividing them into groups depending upon whether the city is a central city, suburb, or independent city. The term central city has traditionally referred to those larger cities that are the center of urbanized areas. Suburb, on the other hand, referred to what were usually smaller cities in the area surrounding the central cities and were dependent upon the central cities for many of the activities of life, such as work, recreation, retail and other commercial purposes. The term independent city has been used to refer to those cities that are outside metropolitan areas but are central locations of commerce and other social activities for surrounding rural areas. They are somewhat like central cities on a smaller scale.

The Office of Management and Budget (OMB) has developed a new classification, that of principal city, providing another means by which to compare cities (OMB, 2000). According to the OMB classification, within "each metropolitan statistical area, micropolitan statistical area, and NECTA [New England city and town areas] the largest place and, in some cases, additional places are designated as 'principal cities' under the official standards" (U.S. Bureau of the Census, 2003). This designation replaces the older central city concept, while allowing for more than one principal city per area (OMB, 2000).

The role and makeup of America's central cities are continually changing. It has traditionally been observed that central cities and suburbs differ in many ways. However, differences that do exist between central cities and suburbs are not as distinct as they once were (Frey, 2001; Furdell, Wolman & Hill, 2005; Lang, 2004; Lang & Simmons, 2001; Rengert and Lang, 2001; Simmons and Lang, 2001; Sohmer and Lang, 2001). Likewise, the problems and features that central cities share with one another, as well as the notion that all suburbs are alike, have been well publicized and are often assumed to be true without question.

While many of these traditional notions may be true, or once were, there have been many changes in the composition of central cities, suburbs, and rural areas across the country since the time cities first began being studied. The National League of Cities (NLC) argues: "'City' and 'suburb' in this respect are antiquated terms associated with an older economic structure in which central cities were the sole economic engines of metropolitan areas surrounded by residential suburbs" (NLC, 2005, p. 3). This suggests that the use of these traditional classifications of central cities, suburbs, and independent cities to group cities should also be re-examined, as the similarities within and differences among each type are blurring.

One way in which central cities have changed involves their domination of the metropolitan area in which they are located. No longer are central cities necessarily the core of activity for surrounding communities. It has been noted that, in Chicago, the Loop area downtown has given up its status as the center of the metropolitan area with the development of large commercial, retail, and offices around O'Hare Airport (Greenstein & Wiewel, 2000). Others have noted that some distressed central cities were in worse conditions economically at the end of the century than they were just 20 years earlier (Furdell, Wolman & Hill, 2005). At the same time, many have noted how the central cities – which for much of the latter part of the 20^{th} century were in decline – have recently begun making a comeback and once again now are becoming more vibrant (Simmons & Lang, 2001; Sohmer & Lang, 2001).

In a report commenting on results from the 2000 census, Sohmer and Lang (2001) note that the most recent census data show there is wide variation among the downtown areas of America's central cities. While the Census Bureau does not have a formal definition of what qualifies as the downtown of a city, the authors say there are many shared characteristics that downtowns have in common to allow the authors to identify the downtowns of different cities. They note downtowns tend to have the most expensive rents for office space and are the central business district for the city.

As examples of the variation among downtown areas, they compare the downtown section of San Antonio, Texas (at 5.5 square miles it is the nation's largest) to those in the cities of Norfolk, Virginia; Cincinnati, Ohio; and Lexington, Kentucky (all of which at 0.8 square miles are the smallest). There are also vast differences between the numbers of residents living in the actual downtown areas. The largest is Boston with 80,000 and the smallest is Norfolk with 3,000 (p. 2).

Sohmer and Lang conclude from their study of 2000 census data that many downtowns are being rejuvenated. They point out the fact that most downtown areas are gaining population despite the fact that cities as a whole are losing population relative to the entire metropolitan areas in which they are located. They also note that there has been a return of White residents to downtowns. One of the reasons for this is that downtowns are often more convenient to an individual's place of work and recreation. Also, by marketing the historical nature of the areas, downtowns are attracting more affluent residents and they are offering more of a "sense of place" (p. 9).

Also analyzing 2000 census data, Simmons and Lang (2001) report that older industrial cities are undergoing improvement. No longer are many declining as they have since the end of World War II, especially during the 1970s. Simmons and Lang selected cities to evaluate as "industrial" by identifying those that were the 50 most populous in the 1950 census. They next eliminated all those that had not undergone decline for at least two decades since 1950. This resulted in 36 cities that contained 20% of the country's population. Many of the cities cut (e.g., Dallas, Jacksonville, and Los Angeles) were those that had the reputation of being vibrant during times when many other large cities were declining. Most of the cities they finally included in their study were located in the Northeast and Midwest regions of the country; the same areas that had been most hard hit by decline.

Their findings included that, in terms of population gain or loss, these cities performed better (lost less or gained) during the decade of the 1990s than anytime since 1950. The authors gave several reasons they believe were likely to have accounted for this turnaround. They noted the historic growth in the economy during the 1990s, as well as increases in immigration and improvements in the accuracy of gathering census data. They also stated this turnaround in population loss may have a number of benefits for these cities, including: increased representation and funding; reclaiming of abandoned housing stock resulting in renewal of neighborhoods; increases in new businesses within the cities; and overall increases in tax revenue (p. 5).

Not all the news about central cities has been good. Furdell, Wolman and Hill (2005) utilized a Municipal Distress Index to study the changes in central cities over the 20 year period between 1980 and 2000. They determined distress scores for the year 1980 for all cities that had at least 125,000 residents and were located within metropolitan statistical areas with populations of at least 250,000. Their index was calculated by utilizing standardized values on the following measures of distress: poverty rate; unemployment rate; change in population over the proceeding decade; and median household income (p. 284). They also examined the level of distress in these cities for the year 2000. These parameters resulted in 98 cities being reviewed.

The study compared these distressed cities to each other, to central cities that were not distressed, and to the nation as a whole. The authors found that:

> The cities that were distressed in 1980 were, on average, worse off on each of our indicators of municipal distress in 2000 than they were in 1980. Furthermore, compared to other cities that were not distressed in 1980 (and the nation as a whole), distressed cities, on average, fell further behind in terms of the economic well-being of their residents during the two decades. (p. 301)

Like central cities, not all suburbs are alike. Harris (1999) relates that the traditional view of how life in suburbia was lived was not a complete description of what existed outside America's central cities. He says that "the 'traditional' view which, like the traditional family, was largely an invention of the 1950s, is that pre-Second World War suburbs were the preserve of the middle and upper classes" (p. 91). He details how during the first half of the 20th century there were at least three types of suburban places in American, which he refers to as the suburbs of suburban mythology, the industrial suburbs, and unincorporated districts on the urban fringe that had extensive development.

Harris notes that the mythological suburb "is often described as gracious, consisting of broad, tree-lined streets that accommodate substantial single-family homes, and the occasional church, school, and park" (p. 93). He acknowledges that suburbs similar to such a place existed. These were the bedroom communities where middle and upper class families moved to experience the good life. However, Harris also recounts that "there were a growing number of incorporated places which contained a significant number of jobs" (p. 94). These type places he describes as the industrial suburbs, and says they were home to the working class and were very diverse. Finally, he identifies a type of place outside central cities which he feels has mostly been overlooked in the research on suburban America. These are the unincorporated areas where it had been reported about one third of the urban population outside the central cities lived (p. 96).

He further notes each of these three types of suburbs developed in different ways. In the mythological suburbs, there were zoning and deed restrictions seeking to protect the value of the homes, and generally much closer control over how the cities were developed. In the industrial suburbs, there were fewer restrictions on development, and the owners of the industries exerted persuasion over city leaders due to the taxes their businesses paid into the cities. He says that the unincorporated places had practically no regulation or control over the type, manner, or timing of development, since there was no city government. Because of this these areas grew in a haphazard fashion.

Harris also describes three different ways in which suburbs were built during the early 1900s. Some homes were built by affluent families who hired contractors to build them a house. He also recognizes speculative builders, commercial builders who built more affordable homes and then sold them to lower-income families. Finally, he says there was what he refers to as amateurs, families who built their own homes through their own labor.

Frey (2001) analyzed race and ethnicity changes in the 102 most populous SMSAs using census data from the year 2000. He reached a number of revealing findings, including: the racial and ethnic composition of suburbs rose substantially over the preceding decade; "melting pot metros" (Los Angeles, Chicago, Washington D.C., Houston, and New York) contained the greatest level of minorities that lived in suburbs; the majority of growth in the suburbs in most metropolitan areas was due to increases in minorities; Asian individuals were most likely to be found in major metropolitan suburbs rather than the central cities themselves; and those self-identifying as members of two or more races exhibited different patterns than others relating to where they lived.

Recent changes have also been noted in areas outside metropolitan areas. Rengert and Lang (2001) defined rural counties outside metropolitan areas in 12 states of the western U.S. as the “Rural West”. The Rural West is characterized as hot, dry, highly elevated, sparsely settled, and containing the greatest amount of federal owned land in the country (with the exception of Alaska). Perhaps because of these features, the authors report the area appeals to and attracts a very diverse group of residents.

Rengert and Lang divide their Rural West into the Old West, consisting of Cowboy Counties and American Indian Counties, and the Cappuccino Counties of the New West. They note that between 1950 and 2000 the area as a whole experienced much faster growth (103%) than the overall country (86%), but that the Cappuccino Counties grew the fastest (241%). One of the reasons for this, however, was that the area began with a much smaller population in 1950 than the rest of the country (pp. 3-5).

Rengert and Lang provide a descriptive examination of the demographics in rural areas of the west. They do not attempt to examine any fiscal output behaviors of their different classifications. However, the authors maintain that understanding these changes in the West region of the United States is important because they will have political and economic implications. They point out that the Old West section has rapidly been losing political influence as the growth has been occurring in the New West region, resulting in the “yuppification” of that area. This has and will continue to result in conflict between residents of the two regions concerning issues such as water and land management, because the fast growing areas need water (in this arid region where it is in short supply) to support their increasing populations and the fast-growing cities continue to expand out to the more rural areas (pp. 5-6).

The status of a city as a central city, suburb, or independent city has declined in importance as cities have changed and evolved over time. Many suburbs now have characteristics traditionally associated with central cities, such as being employment and retail centers for their regions. Likewise, there have been changes in central and independent cities that make it less meaningful to group cities according to these categories.

Elasticity

In addition to the impact of forms of government and metro status, the concept of the elasticity of a city has been suggested to have an influence upon local fiscal behavior. Rusk (1993, 2003) was one of the first scholars who looked at the effects that a city’s “elasticity” has upon its ability to maintain fiscal health. In doing so, he focused on the cities’ ability or lack of ability to incorporate suburban growth into their borders and how that impacted their growth and welfare. Specifically, he maintained that a city must be elastic to grow because elastic cities absorb suburban growth, whereas inelastic cities foster suburban sprawl; growth patterns have been determined by racial prejudice; cities are constrained by bad state laws; there is a greater income disparity between inelastic cities and the surrounding suburbs; and inelastic cities have more poverty and suffered more from deindustrialization.

Rusk measured the elasticity of a city by adding the city's density ranking in 1950 and three times the ranking for its level of expansion as measured through the total increase in land area between 1950 and 2000, to arrive at an elasticity score. He compared cities based upon their elasticity scores and concluded that "(1) Elastic central cities outperform inelastic cities on numerous economic development indicators; and (2) central city elasticity enhances the economic welfare of the entire metropolitan area, not just the central city" (Blair, Stanley & Zhang, 1996, p. 346).

Rusk's study has been criticized for its lack of empirical evidence offered to support his conclusions and its failure to use "appropriate large-sample statistical tests of the elasticity hypothesis" (Blair, Stanley & Zhang, 1996, p. 348), but rather merely relying upon contrasting a small number of cities with one another. In their critic of Rusk's study, Blair, Stanley and Zhang conclude that Rusk's call for policies that would strengthen the control of central cities over the entire metropolitan regions in which they are located "should not be viewed as a powerful tool for the enhancement of metropolitan economic welfare, although it may have modest effects in some circumstances" (p. 351). They point out that Rusk fails to adequately consider other solutions, such as "tax-base sharing; shared service contracts, and the use of special purpose districts" (p. 346).

National League of Cities' Report

The National League of Cities (NLC) published a report in December 2005 setting out a new typology of cities (NLC, 2005). It was believed that this new typology could more accurately distinguish among cities in a way that would aid local decision making and provide a more useful “framework that clarifies the local context in which city officials operate” (p. iii). The report noted “A typology in a municipal context is very helpful; it can provide a meaningful framework to examine local issues and strategies in reference to others that are occurring in similar places” (p. 2). While the NLC typology was primarily developed to address land use issues, the authors stated it should also be beneficial for consideration of finance, governance, inequality, housing, and transportation policies.

The sample for the NLC study consisted of 996 cities with populations between 25,000 and 500,000. The study excluded cities with populations below 25,000 due to the difficulty of obtaining necessary data on such small cities. It also excluded all cities with populations above 500,000 to avoid outlier effects. The report noted that these largest cities constituted Mega-metro centers, totaling 30 in all.

Following factor and cluster analyses, the study omitted 90 of the 996 cities because they did not fit well within the six identified classifications (C. McFarland, personal communication, October 3, 2006). The NLC report notes:

> The cities in this study were examined across as set of social, economic, and demographic variables. Multivariate techniques, including factor and cluster analyses, determined which variables from a broader set of variables were the most important to the analysis and how cities group around these variables. (p. 11)

The factors considered in the analyses included: metropolitan and micropolitan designations; population size, density, and rate of growth; median age of residents and of housing stock; education levels; median household income; and percentages of the population who were under age 18, foreign-born, non-Hispanic Whites, homeowners, and living in an urban area. The analyses also considered region and whether the cities were principal cities or not.

While NLC acknowledges “There is no ‘typical’ city and no practical, realistic, or helpful one-size fits all approach to the varying issues that cities face” (p. 2), its analysis resulted in a typology of six types of cities (seven if you add the excluded Mega-metro center cities). NLC maintains that, while all cities may not be totally represented by any single type of city identified in the typology, some cities may be considered as a combination of the model types (p. iii).

Spread cities are generally located in metropolitan areas in the Midwest and South. They are characterized as having average population sizes (61,000) and densities (2,800 residents per square mile) but low percentages of households with children under age 18 (32%) and foreign-born residents (6%). They also have low median household incomes ($36,000).

Gold coast cities have greater percentages of older (median age of 38), wealthy ($62,000 median household income), and educated residents (27% with bachelor’s degrees). All are located in metropolitan areas. They are mostly suburbs and located in the West and Midwest, and they have greater percentage of homeowners (69%). Their average population is 57,000 and density is 4,100.

Metro centers are larger, more diverse, core cities located mainly in the South and West. They are mainly principal cities, as opposed to suburbs, and they have large populations (259,000) and densities (4,200), and older housing (median age of housing is

44 years). They also have low median household incomes ($36,000), low percentage of homeownership (52%), and greater percentage of non-White residents (48%).

Meltingpot cities are dense (8,200/square mile), diverse, and mostly located in the West, primarily in California. They have less educated (11% with bachelor's degrees), younger (median age 31), more diverse residents who are overwhelmingly minorities (70% non-White) and have more children (47% households with children under age 18). They also have the highest level of foreign-born residents (33%) and the lowest percentage of White residents (30%). They are all located in metropolitan areas and two-thirds of them are suburbs. Their average population is 81,000, and median household income is $42,000.

Boomtowns are identified as having experienced rapid growth (230% between 1980 and 2000) and low densities (2,400). They have newer housing (median age of housing is 21 years) and their residents tend to be wealthy ($57,000) with large percentages of homeowners (73%) and children (43% households with children under age 18). They primarily have populations between 75,000 and 100,000. Their average population is 80,000. Most of these cities are suburbs in the West, South, and parts of the Midwest.

Centervilles are described as being mainly principal cities in micropolitan areas that tend to be located in the Midwest and parts of the South. They have the lowest populations (35,000), are the least dense (1,800/square mile), and have the lowest average income ($33,000) and percentage of foreign-born residents (5%). Their residents have a lower educational level (14% with bachelor's degrees) and are less diverse (75% White).

Finally, Mega-metro centers are the 30 largest U.S. cities which have populations greater than 500,000. These cities are New York, Los Angeles, Chicago, Houston, Philadelphia, Phoenix, San Diego, Dallas, San Antonio, Detroit, San Jose, Honolulu, Indianapolis, San Francisco, Jacksonville, Columbus, Austin, Baltimore, Memphis, Milwaukee, Boston, Washington DC, Nashville, El Paso, Seattle, Denver, Charlotte, Fort Worth, Portland, and Oklahoma City.

Mega-metro centers have an average population size of 1,225,000, ranging from 506,000 to 8 million. The average density is 6,102 residents per square mile. Median household income is $40,000, and 28% of their populations over age 25 have bachelor's degrees. On average, they are 56% non-White and 25% of their households have children under age 18. They have the lowest percentage of homeowners at 50%.

To compare and contrast large numbers of cities and obtain meaningful findings about their fiscal outputs, there must be a way to meaningfully group similar cities for comparison purposes, while distinguishing others. Kesselman, Krieger, and Joseph (2007) have noted that "To 'compare and contrast' is one of the most common human mental exercises" (p. 8). Having a classification that accurately reflects the similarities between cities enhances the researcher's ability to examine the outputs of those cities. Using comparisons between similar type cities "refines and systematizes the age-old practice of evaluation some feature of X by comparing it to the same feature of Y in order to learn more about it than isolated study would permit" (p. 8).

Classification is a process of grouping things into categories based upon established criteria. In the case of a typology, "each member of a particular group should be as similar as possible to others in the group, but as distinct as possible from the members of other groups" (NLC, 2005). The authors of the NLC report believe that the currently used methods of distinguishing between cities rely "on antiquated notions of city forms and assumptions about the functions cities perform" and that their typology provides "a more accurate reflection of the changing nature of the municipal landscape and the diversity that exists among cities" (p. 2).

As previously discussed, much of the existing literature on the fiscal behavior of cities has made comparisons between cities based upon the form of government and/or the metro status of the cities – whether a city is a central city, suburb, or independent city. However, the changing nature of these traditional classifications raises questions about their continued viability as a meaningful manner of making distinctions among cities. If the purpose of such classification is to illustrate the ways in which cities are alike and different, then it is important that the groupings used accurately reflect the nature of the cities under study. According to NLC (2005), "These changes occurring in cities in terms of their character, the types of functions they perform, and services they provide prompt a reexamination of the perceptions of uniformity of traditional city types. It is their distinctive qualities that contextualize city problems and policy implications" (p. 3).

Municipal decision makers face a number of challenges, not the least of which involves decisions about the city's fiscal outputs. NLC argues, "A framework that clarifies the local contexts in which city officials operate can help them more effectively approach and understand these complex challenges" (p. iii). The report "is intended to be a guiding framework for those seeking to better understand cities, their challenges, and responses to those challenges" (p. iii).

Examination of the revenue, expenditure, and debt patterns of cities within the NLC typologies will provide a better understanding of the distinctions and similarities among these new municipal categorizations. Additionally, comparison of fiscal outputs among these new descriptions of cities with prior categorizations used for grouping cities will offer insight into the validity and usefulness of the NLC typology. This dissertation performs such an analysis. The following chapter discusses the methodology and data used in the study.

CHAPTER 3

METHODOLOGY AND DATA

This dissertation describes and compares the taxing, spending, and debt practices of nearly one thousand different cities. The principal research question to be addressed is whether the new National League of Cities (NLC) typology has any relevance concerning the fiscal output policies of municipalities. Both descriptive and multiple-regression analyses are used to illustrate the financial behavior of cities under consideration.

The dissertation initially examines and describes the characteristics of the various types of cities in the NLC typology and explores how they are similar and different, as well as how they compare to other classification schemes. It then uses descriptive statistics to look at the cities in terms of various fiscal measures, again comparing and contrasting these outputs among cities. Comparison of means analysis is employed through *t*-tests and ANOVA testing to determine the significance of the typology. Multiple-regression analysis is applied to test the significance of city type upon outputs of fiscal behavior, such as levels and composition of expenditure, revenue, and debt, and to compare the findings to similar analysis using traditional categorizations of cities.

Systems theory has often been a model used to explain the fiscal behavior of local governments. Under Easton's (1957, 1965a) systems theory, politics can be viewed as a process whereby environmental events result in inputs, consisting of demands and supports, entering the system and causing the system, through its structures and processes, to produce outputs, which are once again acted upon within the environment resulting in additional inputs through a continuous feedback loop.

Many of the studies to date dealing with municipal finance have noted that various input factors impact a city's ability to respond to the fiscal demands of its citizens. Variables such as form of government, metropolitan (metro) status of a city, and demographic characteristics of its population have all been examined as input factors that influence the political system of cities. In this regard, the outputs of local political systems include the various taxing, spending, and debt practices of cities.

Research Design

The unit of analysis for the study is individual cities, both within and outside metropolitan areas, as well as the newly designated micropolitan areas. The data are analyzed using descriptive and linear regression analysis produced with SPSS software. The theoretical population for the study is all U.S. cities with populations of 25,000 and above. According to the International City/County Management Association (ICMA), there were 1,405 U.S. municipalities in 2003 that had 25,000 or more residents (IMCA, 2003). The study looks at 936 cities that have been classified using the NLC typology. The sample cities include all 906 of the cities classified in the NLC typology, plus those cities with more than 500,000 populations, which were excluded from its analysis to prevent outlier effects. The 30 largest cities were included in this study to have a more complete analysis of the financial behavior of U.S. cities. Because the initial factor and cluster testing has been completed, there is no longer the problem of these cities producing an outlier effect in the creation of the typology.

Initially, the study describes and compares characteristics of the different city types in terms of their financial policy outputs and various institutional and demographic variables. It is expected that such an analysis will provide a better understanding of the different types of cities by profiling the actual taxing, spending, and debt related behaviors associated with a particular city type. It also tests the significance of any differences noted between categories. It compares the percentages of traditional central cities with those of the new designation of principal cities. According to the U.S. Bureau of the Census (Census Bureau), principal cities are defined by the U.S. Office of Management and Budget (OMB) as the largest city in Metropolitan or Micropolitan Statistical Areas, plus other cities within the areas that meet certain requirements concerning population size and employment patterns (Census Bureau, 2003).

The study then uses multiple-regression analysis to look at the influences that city types have on fiscal outputs, controlling for a number of factors shown in past research to have effects on the financial behavior of cities. Specifically, the dependent variables are output measures involving the total levels of expenditure, as well as the amounts spent on different functional categories. The study also examines the revenue and debt levels (both as totals and in terms of major categories) of the different types of municipalities.

While the primary independent variable is the city type according to the NLC typology, the study also compares findings about the influence of city type with analysis of the same cities using categorizations previously examined in the literature on municipal fiscal behavior, specifically the form of governmental structure and metro status of a city. This is done to see if the NLC typology provides a more meaningful classification when studying municipal fiscal behavior than do these prior groupings.

The study employs control variables identified in prior studies as impacting the financial behavior of cities, including form of government, metro status, principal city designation, the percentage of intergovernmental revenue (IGR), region of the country, educational level, median household income, population size, density, and growth, and the percentages of residents who are homeowners, children, elderly, and non-White.

As with any statistical analysis, there is the possibility that any findings will be due to chance rather than an accurate reflection of the association between variables under consideration. A two-tailed test of significance is used because the testing performed does not hypothesize the type of association (either positive or negative) expected. To ensure an acceptable degree of reliance, relationships between variables are only considered significant if they are at or below the .05 level.

Hypotheses

The principal research question of this study is whether the NLC typology results in any significant differences in patterns concerning municipal financial outputs. To generally address this issue, the study examines five more specific research questions and tests seven related hypotheses.

The first six of these hypotheses predict significant differences exist among the fiscal outputs of cities according to a city's classification within the NLC typology. These hypotheses are examined through the use of descriptive statistics and tested using *t*-test and one-way ANOVA methods to determine the significance of the typology in terms of various expenditure, revenue, and debt measures. The final hypothesis suggests that the NLC typology provides a better way to categorize cities and, therefore, that it will result in a better explanation of financial behavior than did prior categorizations. This hypothesis is tested with multiple-regression analysis and compared to similar regressions utilizing form of government and metro status as the primary independent variables. The research questions and hypotheses are as follows:

1. What comparisons can be made about the average expenditure, revenue, and debt outputs between the different city types identified in the NLC report?

   HYPOTHESIS #1:

   There are significant differences between the expenditure, revenue, and debt outputs in different city types.

2. Are there differences in expenditure levels between the different city types?

   HYPOTHESIS #2:

   There are significant differences in expenditure levels between the different city types.

3. Are there differences in revenue levels and sources between the different city types?

   HYPOTHESIS #3: There are significant differences in revenue levels between the different city types.

HYPOTHESIS #4: There are significant differences in revenue sources between the different city types.

4. Are there differences in total debt levels and type of debt between the different city types?

   HYPOTHESIS #5:

   There are significant differences in debt levels between the different city types.

   HYPOTHESIS #6:

   There are significant differences in the type of debt incurred by the different city types.

5. Are the NLC typologies better indicators of financial behavior of cities than prior categorizations?

   HYPOTHESIS #7: The NLC typology will provide a more statistically significant measure of the financial behaviors of cities than did prior categorizations as form of government and metro status.

By using the assorted output measures to look at the various city types in relationship to these specific research questions, the study provides more insight into the usefulness of the classifications.

As noted above, the final hypothesis argues that the NLC typology provides a better way to categorize cities for purposes of evaluating their fiscal outputs. It postulates that the type of city (independent variable) influences the city's financial behavior (dependent variable). While this assertion may be true, there are undoubtedly other factors that also impact the taxing, spending, and debt practices of cities. In order for an analysis to test the merit of the claim that a city's type influences its fiscal outputs accurately, those other variables believed to have an influence must be taken into account and controlled. For this reason, the study utilizes a number of control variables.

In previous studies examining the fiscal behavior of cities, several scholars have recognized the importance of taking into account the variation among cities in the types of the services they provide when comparing fiscal output measures among the cities (Booms, 1964; Dye & Garcia, 1978; Farnham, 1986; Liebert, 1974). This is because functional responsibility has been shown to be a major determinant of city spending.

Functional responsibility or functional scope refers to the different types of services or functions provided by a city. There are some common functions, such as police and fire protection, that most all cities provide. However, there are other functions, such as education and hospitals, which are not provided by most cities. Because many of these optional functions are very costly, comparisons involving the revenue, expenditure, and debt outputs of cities may be misleading if the variation in functional responsibility among cities is not considered.

Dye and Garcia (1978) found that functional responsibility was the main determinant of taxing and spending levels – with functionally comprehensive cities spending and taxing more than functionally specialized cities. Cities in the Northeast were found to be more functionally comprehensive, meaning they perform more functions that other regions; cities in the West were the most functionally specialized.

However, after functional responsibility was controlled, cities in the West spent more than those in other regions (Farnham, 1986, p. 159).

Recognizing the differences in functional responsibilities among cities and to control for this factor, this study uses the measure of common functions consisting of only those expenditures for services that most of the cities provide (Booms, 1964; Deno & Mehay, 1987). Common functions include expenditures for police, fire, interest on debt, highways, sanitation (consisting of sewerage and solid waste management), and public health.

It has been recognized that police service is the most commonly provided municipal function, whereas education is one of the least common functions provided by cities (Farnham, 1986). While the provision of education is not as commonly provided, it is a very expensive undertaking and accounts for a large percent of the total expenditures in cities that operate schools (Dye & Garcia, 1978; Farnham, 1986; Lyons & Morgan, 1977). To allow a more comprehensive comparison among cities, separate analysis will be performed on expenditures for police services and education.

Various variables have been noted to have an impact on the amount of public services demanded and, thus, the level of municipal taxes, expenditures, and debt. Cities with the following characteristics tend to spend more per capita: non-suburbs, those that receive greater levels of intergovernmental revenue, those with larger percentages of non-White residents, and those with higher percentages of citizens age 65 and older (Bergstrom & Goodman, 1973; Clark, 1968; Dye & Garcia, 1978; Farnham, 1986). On the other hand, the variables of population size, density, growth rate, percent of homeownership, percent of citizens under age 18, and the levels of income and education all tend to be negatively related to city spending (Bergstrom & Goodman, 1973; Booms, 1966; Dye & Garcia, 1978; Liebert, 1974). Also, some researchers suggest that regional location influences demand for services and expenditures in cities (Cole, 1971; Dye & Garcia, 1978; Farnham, 1986; French, 2004). Others suggest it does not (Lineberry & Fowler, 1967; Stumm & Corrigan, 1998).

Since it is a major purpose of this study to evaluate the usefulness of the NLC typology for financial inquiry, it is important that the effect which a city's classification within the typology has upon its fiscal outputs be isolated as much as possible from other influences. The dependent variable common function is used, along with control variables, to provide a more accurate analysis in this study.

Data Sources and Coding Procedures

The data for this study include existing financial, institutional, and demographic information relating to 936 cities, which are those with year 2000 populations of 25,000 and above that also are included in the NLC typology, as well as the 30 largest cities that were not typed by the NLC study but were referred to as Mega-metro centers. The sample of cities utilized by NLC in the development of its typology provides a good representation of all cities in the United States that have 25,000 or more residents as previously shown in Table 1.1, with the exception of those cities with populations of 500,000 and above. The appendix consists of a listing of all 936 cities included in the current study arranged by type according to the NLC typology.

The primary source of financial data used in this dissertation is the report of the City Finance Surveys produced by the Census Bureau as part of the 2002 Census of

Governments. The Census of Governments is conducted every five years in years ending in 2 and 7. These surveys contain comprehensive information relating to municipal tax, spending, and debt levels and composition (Census Bureau, 2002).

The primary sources of institutional data on the cities are the 2001 Forms of Municipal Governments survey conducted by ICMA and the *Municipal Yearbook 2003* (ICMA, 2001, 2003). This survey and the annual yearbook provide information about the form of government structure and the metro status of U.S. cities. Finally, various demographic data come from both Census Bureau and ICMA sources, primarily the 2000 Decennial Census, Summary File 3 (Census Bureau, 2000).

The values for the different dependant variables relating to taxing, spending, and debt practices of the cities are the dollar amounts listed for each of the cities in the Census Bureau's 2002 City Finance Surveys converted to per capita figures. Replicating the method used by Booms, common functions are defined in this dissertation based upon the Census Bureau's definition that includes police, fire, health, sanitation (sewerage and solid waste management), highways, and interest on debt (Booms, 1966). The variable common function is computed by adding the total expenditures for each of these six categories of services. The study also examines total expenditures and expenditures on police and education for each city. Table 3.1 shows coding and data information for the dependent variables used in this study.

Table 3.1. Dependent Variables

Name	Label	Coding
Expenditure:		
Total expenditures	TlExpend	Dollar amount per capita
Common functions (police, fire, health, sanitation, highways, and interest on debt combined)	ComFct	Dollar amount per capita
Police	Police	Dollar amount per capita
Education	TtlEdu	Dollar amount per capita
Revenue:		
Total revenue	TtlRev	Dollar amount per capita
Property tax	PrptTax	Dollar amount per capita
Sales tax	SaleTax	Dollar amount per capita
Income tax	IncTax	Dollar amount per capita
Intergovernmental	IGRev	Dollar amount per capita
Percentage intergovernmental	IGRprct	Actual percentage amount (Computed by the author as the amount of total intergovernmental revenues received divided by the amount of total revenues
Debt:		
Total outstanding	TlDebtO	Dollar amount per capita
Long-term, full faith and credit	LTDoFFC	Dollar amount per capita

Note. Data source for fiscal outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

The primary independent variable used is the type of city according to the NLC's typology: Spread cities, Gold coast cities, Metro centers, Meltingpot cities, Boomtowns, and Centervilles plus the 30 largest cities or Mega-metro centers. Inclusion of the 30 additional cities only slightly changes the percentages for the breakdown of the city types, as shown in Table 3.2.

Data for the variable typology are obtained from a listing of all cities used in the NLC analysis, arranged by type, which was provided by one of the authors of the report (C. McFarland, personal communication, June 14, 2006). Additional analysis are performed using form of government and metro status as the independent variables to test the fiscal outputs of cities based upon these traditional classifications. These analyses are conducted for purposes of comparison with the findings obtained from testing the NLC typology as the primary independent variable.

Table 3.2. Comparison of Sample Cities Without
and With Inclusion of Mega-Metro Centers

	Without Mega-metro cities[a]	With Mega-metro cities
Total cities	906	936
Spread cities	41%	40%
Gold coast cities	20%	20%
Metro centers	9%	9%
Meltingpot cities	14%	13%
Boomtowns	8%	8%
Centervilles	8%	7%
Mega-metro centers	---	3%

[a]Source for figures without Mega-metro cities: National League of Cities (2005), *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*. Retrieved from: http://www.nlc.org/content/Files/RMPtypologiesrpt06.pdf.

The value assigned for the variable Typology indicates NLC's classification for each city represented nominal measurement with the categories assigned scores of 1 to 7 respectively. Additionally, dummy variables have been created for each of the seven types of cities with that type coded as 1 and all others as 0. The variable Typology is examined through comparison of means using *t*-tests and one-way ANOVA testing. These dummy variables are used to generate descriptive statistics about each type of city and in the multiple regression analysis to represent the different city types.

The variables form of government and metro status were used as independent variables in separate analyses involving the effects of these institutional factors on municipal fiscal behavior. The values of these variables for each city come from ICMA's 2001 Municipal Form of Government survey (ICMA, 2002). The form of government surveys provide historical information on cities throughout the United States. For the relatively small number of the subject cities that did not respond to this survey, the information concerning their form of government and metro status was obtained from the *Municipal Yearbook 2003* (ICMA, 2003). ICMA uses five categories to describe form of government: mayor, manager, commission, town meeting, and representative town meeting. Because none of the cities in this study have town meeting nor representative town meeting forms, the variable form of government only uses the first three ICMA categories. Table 3.3 shows coding and other information for the independent variables used in the study. Here, too the variable categories are coded as a nominal measure and dummy variables created for each category.

Table 3.3. Independent Variables

Name	Label	Coding
Typology[a]	Typology	Spread cities = 1; Gold coast cities = 2; Metro centers =3; Meltingpot cities = 4; Boomtowns = 5; Centervilles = 6; Mega-metro = 7
City type dummy variables	Name of city type	City type = 1; all others 0
Form of government[b]	Formgvt	Mayor-council = 1; Council-manager = 2; Commission = 3
Manager	Manager	Manager = 1; all others 0
Metro status[b]	Metro	Central = 1; Suburb = 2; Independent = 3
Suburb	Suburb	Suburb = 1; all others 0

[a]Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. [b]Data Source for Form of Government: International City/County Management Association, *Municipal Form of Government Survey 2001*. Washington, DC: International City/County Management Association, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: International City/County Management Association, 2003.

Additionally, this study looks at the possible effects of various control variables upon the fiscal output behavior of cities based upon findings from previous research concerning demand and expenditure patterns. Data and coding information on these control variables are shown in Table 3.4. The form of government and metro status for each city are coded, and data gathered, in the same manner when they are used as control variables as when they were used as independent variables as discussed above.

Table 3.4. Control Variables

Name	Label	Coding
Form of government[a]	Formgvt	Mayor-council = 1; Council-manager = 2; Commission = 3;
Manager[a]	Manager	Manager = 1; all others 0
Metro status[a]	Metro	Central = 1; Suburb = 2; Independent = 3
Suburb[a]	Suburb	Suburb = 1; all others 0
Principal city designation[b]	Pcity	Pcity = 1; all others 0
Percentage IGR[c]	IGRrate	Actual percentage amount (Computed by the author as the amount of total intergovernmental revenues received divided by the amount of total revenues)
Population size[d]	Pop2000	Amount of population
Population density[d]	Densty00	Amount of population divided by land area (Computed by author)
Growth rate 1980-2000[e]	Growth	Actual percentage change
Non-White[d]	Non-White	Percent non-White
Black[d]	Black	Percent Black
Hispanic[d]	Hispanic	Percent Hispanic
Home ownership[d]	Homeownr	Percent owner-occupied housing units
Children[d]	Children	Percent under age 18
Elderly[d]	Elderly	Percent age 65 and over
Education[d]	EduBach	Percent age 25 and older with bachelor's degree or higher
Median household income[d]	medINC	Actual dollar amount

[a]Data Sources: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. [b]Definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan

and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. [c]Data Source: U.S. Bureau of the Census, 2002 Census of Governments' City Finance Surveys Census of Governments, 2002. [d]Data Source: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. [e]Data Source: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000.

Region of the country where the city is located is coded according to the Census Bureau's regional classifications where Northeast is coded as 1, Midwest as 2, South as 3, and West as 4. Additionally, with the West region serving as the control, three dummy variables representing the Northeast, Midwest, and South regions were created. The regional dummy variables are coded as 1 for the identified region and 0 for all others.

Population size and density are measured as the actual 2000 population and that population divided by land area in square miles for each city. The growth rate for a city is determined by calculating a percentage figure equal to the change in population for a city between 1980 and 2000, divided by its 1980 population, with the resulting amount multiplied by 100.

The median household income of a city is measured using the actual dollar amount figures of median household income, recorded for 1999, that are listed for each of the cities. All other demographic figures represent year 2000 census data.

Examination of the NLC typology is performed following the research design set out in this chapter. The following two chapters describe this analysis and contain the findings of the study, relating them to the research questions and hypotheses presented earlier in this chapter. They also explain the significance of these findings. Chapter four focuses on the descriptive analysis and chapter five discusses the multiple-regression analysis performed in the study.

CHAPTER 4

DESCRIPTIVE ANALYSIS AND FINDINGS

This chapter summarizes the descriptive analysis performed in the study and reports the findings of the various testing on demographic and financial data for the 936 sample cities. The objectives of the study include describing and comparing spending, taxing, and debt practices of the cities, as well as various demographic characteristics, to better understand the cities being studied. In addition, the significance of the National League of Cities' (NLC) typology to fiscal output behaviors of the cities is analyzed and compared with other classification systems to determine whether the NLC typology provides a better gauge by which such financial behaviors can be measured and understood.

The principal research question of the study is whether the NLC typology results in significant differences in patterns among the different city types concerning municipal financial outputs. To generally address this issue, the study examines and tests seven related hypotheses. The research hypotheses are as follows:

1. There are significant differences between the expenditure, revenue, and debt outputs in different city types.
2. There are significant differences in expenditure levels between the different city types.

3. There are significant differences in revenue levels between the different city types.
4. There are significant differences in revenue sources between the different city types.
5. There are significant differences in debt levels between the different city types.
6. There are significant differences in the type of debt incurred between the different city types.
7. The NLC typology will provide a more statistically significant measure of the financial behaviors of cities than did prior categorizations.

The first six of these hypotheses predict significant differences among the fiscal outputs of cities according to a city's classification within the NLC typology. These hypotheses are examined through the use of descriptive statistics and tested using *t*-test and one-way analysis of variance (ANOVA) methods to determine the significance of the typology in terms of various fiscal measures. The final hypothesis suggests that the NLC typology provides a better way to categorize cities and, therefore, that it will result in a better explanation of financial behavior than did prior categorizations. This hypothesis is tested with multiple-regression analysis and compared to similar regressions utilizing form of government, metropolitan (metro) status, and principal city status as the primary independent variables. This portion of the analysis is reported in chapter five.

Prior research has suggested that various factors have an impact on the financial behavior of cities, although the studies have not been consistent on the influences resulting from many of the factors. Under systems theory, these are the input factors that act upon the city's political system and affect the outputs produced. The current study analyzes several of these factors identified in prior research. These factors include regional location, form of government, metro status, and principal city status of the cities included in NLC's typology. The analysis also looks at the demographic factors that have been noted to impact fiscal behavior. These include: population size and density; growth rate; levels of income, home ownership, and education; and the age and racial makeup of the residents of the cities. The outputs of the system are the ultimate financial decisions made in terms of its spending, taxing, and debt practices. The various classification schemes are compared to see which are best at distinguishing among cities in terms of these demographic factors, as well as fiscal outputs.

The analysis initially examines and describes the structural and demographic characteristics of the various types of cities in the different classification schemes and explores how they are similar and different. Additionally, descriptive statistics are utilized to look at the cities in terms of various fiscal output measures, again comparing and contrasting these outputs among cities. Comparison of means analysis is employed through *t*-tests and ANOVA testing to determine the statistical significance of any noted differences among the cities within each classification. The next chapter reports how multiple-regression analysis is applied to test the significance and influence of city types within the NLC typology on fiscal outputs and to compare the findings to similar analysis using traditional categorizations of cities.

Regional Influence

Because it has long been noted that differences exist in financial behavior based on the region of the country in which the city is located, the analysis begins with an examination of differences among cities within the various classifications based on the U.S. Bureau of the Census (Census Bureau) region in which they are located. As set out in Chapter 1, Table 1.1 shows the regional location of the cities in the study compared to all U.S. cities with populations of 25,000 and above. The sample is under representative of the cities in the Northeast by 9%. Cities in the West and South are over represented by 4 and 5% respectively.

Table 4.1 shows the regional location of cities that comprise each of the city types within the NLC classification. The association between typology and region is statistically significant, as are all the other classifications' association with region.

Table 4.1. Regional Location of City Types
Within National League of Cities' Typology (Percentages)

Region	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Northeast	16.4	11.9	20.0	12.8	0.0	8.8	10.0
Midwest	33.3	34.1	18.8	6.4	23.7	32.4	16.7
South	34.1	13.0	33.8	15.2	36.8	36.8	43.3
West	16.1	41.1	27.5	65.6	39.5	22.1	30.0
N	372	185	80	125	76	68	30

Note. X^2 (18, N = 936) = 167.76, p = .01. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

Notable are the facts that there are no Boomtowns in the Northeast and Meltingpot cities are predominately located in the West (66%). Two thirds of the Spread cities are about evenly divided between the Midwest and South, with the remaining third about evenly divided between the Northeast and West. Gold coast cities are mainly located in the Midwest and West, with a total of about 75% of this type city located there. Metro centers are the most evenly dispersed type of city in each of the four regions. Meltingpot cities are least likely to be found in the Midwest, while two thirds of them are in the West. Boomtowns are largely located in the South and West, with less than one fourth in the Midwest and none in the Northeast. Centervilles are predominately located in the Midwest and South with very few in the Northeast. Mega-metro centers are mainly found in the South, with relatively few in the Northeast and Midwest.

One of the purposes of this study is to compare the typology classifications to other methods of classification including form of government, metro status, and principal city status. Thus, an examination of the regional location of cities based on these other classifications enables one to begin seeing how they compare to the NLC classification.

Table 4.2 shows the regional breakdown of cities classified by form of government. The greatest percentage of mayor-council cities is located in the Midwest, followed by the Northeast. The two regions account for nearly 75% of all cities with the mayor-council form of government. The Western region has only 10% of the cities with the mayor-council form of government.

City-manager cities account for around two thirds of all the cities in the study. Manager cities are primarily located in the West, followed by the South. These two regions account for almost 74% of all manager cities in the study. Just under 5% of the manager cities are located in the Northeast. Table 4.2 also illustrates that less than 1.5% of the sample cities have the commission form of government. Of these commission cities, an equal number (31%) are located in the Midwest and South. The West has the least cities with the commission form of government. (Commission cities are not expected to have much influence in the analysis due to their low number.)

Table 4.2. Regional Location Based on Form of Government (Percentages)

Region	Mayor	Manager	Commission
Northeast	30.2	4.6	23.1
Midwest	38.0	21.8	30.8
South	21.4	31.4	30.8
West	10.4	42.3	15.4
N	308	615	13

Note. X^2 (6, N = 936) = 197.42, p = .01. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

Table 4.3 depicts the regional location of cities based on their metropolitan (metro) status. It shows that central cities and suburbs are about evenly divided in the sample, with 48% being central cities and 44% suburbs. Independent cities account for only 8% of the total cities.

The central cities are mainly in the South (37%) and are least likely to be located in the Northeast (16%). The remainder of the central cities is about evenly divided between the Midwest and West. Most of the suburbs can be found in the West (41%) and Midwest (31%). Independent cities are fairly evenly divided among the regions, with the exception of the Northeast.

Table 4.3. Regional Location Based on Metro Status
(Percentages)

Region	Central	Suburb	Independent
Northeast	16.2	11.2	6.8
Midwest	23.3	30.6	32.4
South	36.9	17.7	32.4
West	23.6	40.5	28.4
N	450	412	74

Note. X^2 (6, N = 936) = 60.29, p = .01. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

Table 4.4 reports the regional location of cities based on whether or not they are principal cities. As can be seen, the sample cities are about evenly divided between those that are principal cities and those that are not. Over 65% of principal cities are found in the South and West. Just over 10% are in the Northeast.

Table 4.4. Regional Location Based on Principal City Status
(Percentages)

Region	Principal	Non-Principal
Northeast	12.0	14.7
Midwest	22.7	32.3
South	34.3	21.2
West	31.0	31.8
N	493	443

Note. X^2 (3, N = 936) = 23.33, p = .01. Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

Another way to understand the import of region is to consider the makeup of the cities within each region in terms of the classification categories. Table 4.5 shows the percentages of the different types of cities within the NLC typology for each of the four Census Bureau regions. Spread cities, which account for 40% of all cities in the study, constitute just under 50% in each of the regions, with the exception of the West, where they account for only around 20%, and where Gold coast and Meltingpot cities are both more numerous.

Table 4.5. City Types Within National League of Cities' Typology by Region (Percentages)

Typology (percent of total)	Northeast	Midwest	South	West
Spread cities (40%)	49.2	48.6	48.3	20.4
Gold coast cities (20%)	17.7	24.7	9.1	25.9
Metro centers (9%)	12.9	5.9	10.3	7.5
Meltingpot cities (13%)	12.9	3.1	7.2	27.9
Boomtowns (8%)	0.0	7.1	10.6	10.2
Centervilles (7%)	4.8	8.6	9.5	5.1
Mega-metro centers (3%)	2.4	2.0	4.9	3.1
N	124	255	263	294

Note. X^2 (18, N = 936) = 167.76, p = .01. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

Table 4.6 shows that 75% of all cities in the Northeast have mayoral forms of government, whereas almost 75% of all cities in the South are of the city-manager form. Cities in the Midwest are relatively evenly divided between mayors and managers. The West is predominately comprised of manager cities. Because of the small number of commission cities, they do not comprise even 2.5% of any of the four regions.

Table 4.6. Form of Government by Region
(Percentages)

Form of Government	Northeast	Midwest	South	West
Mayor	75.0	45.9	25.1	10.9
Manager	22.6	52.5	73.4	88.4
Commission	2.4	1.6	1.5	0.7
N	124	255	263	294

Note. X^2 (6, N = 936) = 197.42, p = .01. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

A breakdown of cities in each region based on their metro status is presented in Table 4.7. Central cities constitute the majority of cities in the Northeast and South, with suburbs leading in the West. The division is more even between central and suburban cities in the Midwest, with just under half being suburbs. Independent cities make up a larger percentage of the cities in the Midwest and South than in the other regions, but even in these regions they account for less than 10% of the total cities.

Table 4.7. Metro Status by Region
(Percentages)

Metro Status	Northeast	Midwest	South	West
Central	58.9	41.2	63.1	36.1
Suburb	37.1	49.4	27.8	56.8
Independent	4.0	9.4	9.1	7.1
N	124	255	263	294

Note. X^2 (6, N = 936) = 60.29, p = .01. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

Table 4.8 sets out the distribution of cities in each region based on whether they are principal cities. Cities in the Northeast and West are about evenly divided, with principal cities having slightly more in each region. The West is also fairly evenly divided, but non-principal cities are somewhat more numerous. In the South, almost two thirds of the cities are non-principal cities.

Table 4.8. Principal City Status by Region
(Percentages)

City Status	Northeast	Midwest	South	West
Principal	52.4	56.1	35.7	48.0
Non-principal	47.6	43.9	64.3	52.0
N	124	255	263	294

Note. X^2 (3, N = 936) = 23.33, p = .01. Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

These initial tables show there are a number of differences among the regions in terms of the various classification schemes examined. However, as Lineberry and Fowler (1967) note, “The South is not a distinctive political region because two surveyors named Mason and Dixon drew a famous line, but because the ‘composition of its population’ differs from the rest of the county” (p. 706). Therefore, additional analysis of specific demographic characteristics of cities within the different classifications is necessary to understand what influence region may have on a city’s fiscal outputs.

Demographic Factors

Table 4.9 shows the mean values on various demographic characteristics within each census region and for the total sample. The high and low values for each variable as well as the standard deviation are presented as well.

Table 4.9. Demographic Characteristics by Region
(Mean values)

Variable	Northeast	Midwest	South	West	Total	*N*
Population	149,387	90,416	119,806	123,296	116,814	936
SD	(726,605)	(208,422)	(191,141)	(259,405)	(336,043)	
High	8,008,278	2,896,016	1,953,631	3,694,820	8,008,278	
Low	25,671	26,009	25,514	26,128	25,514	
Density	6,578	3,226	2,456	4,710	3,920	936
SD	(7,383)	(1,838)	(1,820)	(3,437)	(3,819)	
High	52,825	13,886	12,508	23,799	52,825	
Low	466	781	159	11	11	
Growth Rate for 1980-2000[a]	2.6%	18.9%	51.6%	73.9%	43.2%	936
SD	(13.1)	(42.5)	(80.7)	(139.6)	(95.6)	
High	40.0%	237.6%	592.8%	1,819%	1,819%	
Low	-22.1%	-42.9%	-27.6%	-53.2%	-53.2%	
Median Income	$40,101	$45,254	$37,631	$49,032	$43,616	936
SD	(12,685)	(14,419)	(11,677)	(16,472)	(14,918)	
High	$98,390	$106,773	$94,609	$139,895	$139,895	
Low	$21,186	$20,542	$17,206	$25,849	$17,206	
Home Ownership	50.2%	65.4%	57.7%	58.2%	59.0%	936
SD	(14.2)	(12.2)	(11.4)	(11.7)	(13.0)	
High	81.8%	92.7%	92.2%	90.0%	92.7%	
Low	18.2%	21.0%	27.2%	23.8%	18.2%	
Bachelor's Degree or Higher	23.0%	27.8%	26.1%	27.4%	26.6%	936
SD	(12.4)	(14.8)	(11.2)	(14.4)	(13.5)	
High	69.2%	72.6%	73.7%	74.4%	74.4%	
Low	8.2%	6.9%	6.7%	2.3%	2.3%	
Children	23.6%	24.6%	24.4%	26.6%	25.0%	936
SD	(3.9)	(3.7)	(4.4)	(5.1)	(4.6)	
High	33.2%	32.8%	35.5%	39.5%	39.5%	
Low	5.8%	9.0%	9.7%	14.1%	5.8%	

Variable	Northeast	Midwest	South	West	Total	*N*
Elderly	13.8%	12.8%	12.9%	11.0%	12.4%	936
SD	(2.9)	(3.9)	(5.3)	(3.9)	(4.4)	
High	20.7%	27.7%	37.8%	33.1%	37.8%	
Low	5.8%	4.1%	3.6%	3.2%	3.2%	
Non-White	31.6%	21.4%	40.1%	44.1%	35.1%	936
SD	(24.1)	(17.5)	(19.1)	(24.3)	(23.1)	
High	88.5%	98.8%	95.0%	99.0%	99.0%	
Low	2.9%	3.2%	4.2%	5.9%	2.9%	
Black	12.5%	11.4%	23.7%	4.7%	12.9%	935
SD	(14.1)	(16.1)	(18.8)	(6.4)	(16.2)	
High	61.8%	97.7%	84.5%	47.1%	97.7%	
Low	0.3%	0.2%	0.4%	0.2%	0.2%	
Hispanic	14.3%	5.2%	12.1%	26.3%	15.0%	936
SD	(16.2)	(6.8)	(16.3)	(20.8)	(18.1)	
High	82.3%	51.6%	94.1%	96.3%	96.3%	
Low	0.5%	0.6%	0.6%	1.8%	0.5%	
N	124	255	263	294	936	

Note. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.
[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other data are from the 2000 Decennial Census.

Average populations of the cities range from 90,000 in the Midwest to 149,000 in the Northeast. Population density is the greatest in the Northeast and the least in the South. The mean growth rates for the cities range considerably, from a low of only 2.6% in the Northeast to a high of 74% in the West.

Each region’s median household income is within an $11,000 range. Home ownership rates go from around 50% to just over 65%. Educational levels vary within a range of 5%, and the percentages of children and elderly for the regions all fall within 3% ranges. The percentages of non-White residents in the South and West are twice as much as in the Midwest. The South has the largest percentage of Blacks, with nearly twice as many as the next highest region, the Northeast, and the West has the least. In contrast, the West has the largest percent of Hispanics and the Midwest the least.

Table 4.9 also shows that there are large ranges between the individual values reported by cities for many of these variables. The variables population size and growth rate, among others, have mean values for each of the four regions which are exceeded by the standard deviations of values within the region. Thus, it may be misleading to rely simply on a city's regional location to infer much about its demographic makeup. On the other hand, the variables home ownership and children have much less variation in values within the regional categories, but there is also less difference between the regions.

The mean values for demographic characteristics of the cities within each of the classifications of the NLC typology are shown in Table 4.10. In 5 of the 7 city types the population mean ranges in size from 35,000 to 81,000. Metro centers and Mega-metro centers are substantially larger, at 259,000 and 1.2 million respectively. Population density figures vary more widely with Meltingpot cities being the densest and Centervilles the least dense. Growth rates between 1980 and 2000 were all within 15 to 30% of one another, with the exception of Meltingpot cities, which grew at an average rate nearly twice that of most of the other cities, and Boomtowns that increased at the exceptionally higher rate of 230%. The Boomtown grouping not only has the largest standard deviation, it is the only group where the low end of the data range (51.2%) is positive, not negative.

Table 4.10 further shows that the median household incomes vary from $33,000 to $62,000 per year. The measure of home ownership shows rates are generally around 50 to 60% with the exception of Gold coast cities (68%) and Boomtowns (73%).

Educational levels (percentage with a bachelor's degree or higher) range from a low of 17% in Meltingpot cities to 40% in Gold coast cities.

Table 4.10. Demographic Characteristics of City Types Within National League of Cities' Typology (Mean values)

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	*N*
Population	60,798	57,421	259,364	81,064	80,113	34,753	1,225,480	936
SD	(30,598)	(30,595)	(108,592)	(50,182)	(42,379)	(7,133)	(1,469,732)	
High	205,727	203,413	486,699	337,977	222,030	63,677	8,008,278	
Low	25,514	26,940	85,403	26,992	31,880	25,575	506,132	
Density	2,823	4,119	4,242	8,256	2,384	1,783	6,102	936
SD	(1,721)	(2,255)	(2,650)	(7,268)	(1,013)	(1,084)	(5,556)	
High	11,254	16,571	11,494	52,825	4,916	6,217	26,403	
Low	32	454	153	727	771	11	834	
Growth Rate 1980-2000[a]	18.3%	30.1%	24.4%	53.5%	230.9%	15.7%	26.9%	936
SD	(31.3)	(35.5)	(41.3)	(52.8)	(240.6)	(29.7)	(33.7)	
High	173.3%	148.9%	190.5%	291.2%	1,819%	111.9%	140.0%	
Low	-42.9%	-17.2%	-23.2%	-53.2%	51.2%	-21.8%	-21.0%	
Median Income	$35,982	$62,085	$36,260	$42,021	$57,089	$33,363	$39,763	936
SD	(6,929)	(15,841)	(7,057)	(10,901)	(11,512)	(6,465)	(8,001)	
High	$51,969	$139,895	$56,054	$84,429	$88,771	$62,034	$70,243	
Low	$17,206	$28,266	$23,483	$24,468	$34,758	$22,700	$29,536	
Home Ownership	56.4%	68.1%	51.6%	51.5%	72.6%	58.9%	50.4%	936
SD	(10.1)	(12.7)	(9.6)	(13.9)	(9.2)	(8.8)	(9.1)	
High	86.2%	91.1%	74.9%	88.9%	92.7%	72.2%	63.2%	
Low	21.7%	21.0%	23.8%	18.2%	48.8%	30.2%	30.2%	
Bachelor's Degree or Higher	23.4%	39.9%	24.4%	17.1%	30.9%	21.6%	28.1%	936
SD	(11.3)	(13.8)	(8.2)	(9.5)	(12.7)	(9.4)	(8.5)	
High	73.7%	74.4%	54.3%	65.1%	60.7%	48.2%	47.2%	
Low	6.7%	9.3%	9.0%	2.3%	10.2%	8.2%	11.0%	
Children	23.8%	23.1%	25.9%	29.3%	29.1%	24.5%	24.7%	936
SD	(3.9)	(3.6)	(2.9)	(5.0)	(3.5)	(4.2)	(4.0)	
High	32.8%	29.7%	32.9%	39.5%	38.0%	34.6%	31.1%	
Low	5.8%	13.2%	16.8%	10.5%	18.0%	13.1%	14.5%	

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	*N*
Elderly	13.5%	14.1%	11.5%	9.2%	8.5%	14.2%	10.8%	936
SD	(3.7)	(5.3)	(2.2)	(2.9)	(4.2)	(3.9)	(2.1)	
High	33.1%	37.8%	17.4%	19.2%	26.5%	27.2%	17.8%	
Low	3.6%	5.3%	5.5%	3.9%	3.2%	6.1%	6.7%	
Non-White	27.3%	25.2%	48.0%	70.8%	25.8%	26.2%	55.6%	936
SD	(17.2)	(15.5)	(16.4)	(17.0)	(15.5)	(18.4)	(16.8)	
High	98.8%	78.6%	88.2%	99.0%	78.4%	73.9%	89.5%	
Low	2.9%	3.2%	12.1%	27.3%	5.9%	3.2%	24.5%	
Black	15.0%	5.1%	25.1%	12.0%	6.8%	11.4%	24.8%	935
SD	(17.5)	(7.9)	(18.6)	(15.5)	(8.6)	(14.6)	(20.5)	
High	97.7%	54.2%	73.5%	78.2%	45.5%	69.6%	81.6%	
Low	0.3%	0.2%	1.3%	0.4%	0.2%	0.2%	1.6%	
Hispanic	7.8%	9.7%	15.9%	46.4%	12.6%	10.4%	20.2%	936
SD	(8.7)	(8.7)	(14.1)	(22.6)	(9.9)	(15.5)	(18.5)	
High	51.7%	47.8%	65.8%	96.3%	37.7%	71.2%	76.6%	
Low	0.6%	0.5%	0.8%	6.9%	1.1%	0.7%	1.7%	
N	372	185	80	125	76	68	30	

Note. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan.
[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other data are from the 2000 Decennial Census.

The mean percentages of children age 18 and younger are all between 23 and 29%. Likewise, the percentages of those ages 65 and older vary from around 9 to 14%. Racial makeup of the cities varies considerably overall with a range of 25 to 71% non-White. However, excluding the two most populous city types and Meltingpot cities, the others only range from 25 to 27% non-White. Gold coast cities and Boomtowns have the lowest percentages of Blacks, whereas Meltingpot cities have by far the greatest concentration of Hispanics, at 46%.

Table 4.11 reveals the same demographic information for cities based on their form of government. The average populations range from a low of 92,000 in manager cities to 165,000 for mayor cities. Cities with mayor-council and council-manager forms of government have relatively similar densities at around 4,000. Commission cities have the greatest density, being over twice the amount of the other two types of cities. Growth rates are the highest in manager cities at nearly three time that of mayor cities.

Median income is lowest in commission cities and highest in cities with managers. Home ownership rates vary with the range being around a 5% difference. Likewise, the differences in educational levels among all three categories are within about 5%. The age categories of children and elderly are the least dispersed with both ranging around a difference of merely 2%. The racial compositions of the cities based on their form of government vary more with a difference of about 5% for non-White, 6% for Black, and 7.5% for Hispanic.

Table 4.11. Demographic Characteristics Based on Forms of Government (Mean values)

Variable	Mayor	Manager	Commission	*N*
Population	165,213	92,255	131,972	936
SD	(554,399)	(126,762)	(148,376)	
High	8,008,278	1,321,045	529,121	
Low	26,156	25,514	26,186	
Density	4,065	3,734	9,241	936
SD	(3,686)	(2,941)	(17,699)	
High	30,138	23,799	52,825	
Low	32	11	48	
Growth Rate for 1980-2000[a]	18.8%	56.1%	13.0%	936
SD	(45.5)	(111.3)	(21.4)	
High	337.6%	1,818.8%	52.4%	
Low	-42.9%	-53.2%	-18.1%	
Median Income	$39,685	$45,768	$34,967	936
SD	(11,851)	(15,930)	(6,872)	
High	$98,390	$139,895	$45,130	
Low	$19,544	$17,206	$23,066	

Variable	Mayor	Manager	Commission	*N*
Home Ownership	56.7%	60.2%	54.7%	936
SD	(12.9)	(12.8)	(16.6)	
High	92.2%	92.7%	70.1%	
Low	21.0%	22.8%	18.2%	
Bachelor's Degree or Higher	23.7%	28.1%	22.9%	936
SD	(11.7)	(14.2)	(8.7)	
High	69.7%	74.4%	38.9%	
Low	6.7%	2.3%	9.2%	
Children	24.7%	25.3%	23.4%	936
SD	(3.6)	(5.0)	(2.2)	
High	35.2%	39.5%	26.8%	
Low	10.4%	5.8%	19.4%	
Elderly	13.0%	12.1%	14.3%	936
SD	(3.3)	(4.8)	(2.8)	
High	25.4%	37.8%	20.1%	
Low	4.6%	3.2%	10.0%	
Non-White	31.9%	36.7%	35.4%	936
SD	(22.5)	(23.1)	(29.9)	
High	98.8%	99.0%	86.7%	
Low	2.9%	3.2%	5.7%	
Black	17.0%	10.8%	15.7%	935
SD	(19.5)	(13.8)	(20.3)	
High	97.7%	78.2%	69.6%	
Low	0.0%	0.2%	0.2%	
Hispanic	10.0%	17.5%	16.1%	936
SD	(13.6)	(19.2)	(29.0)	
High	90.3%	96.3%	82.3%	
Low	0.6%	0.5%	0.7%	
N	308	615	13	

Note. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.
[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other data are from the 2000 Decennial Census.

Table 4.12 contains the demographic measures for cities based on their metro status. Population means range from 37,000 for independent cities to central cities at 179,000. The mean density is greatest in suburbs, where it is nearly three times as much as in independent cities. Suburbs have the highest growth rate at just over twice that of central cities and nearly three times the rate reported for independent cities. The mean values for the variable median household income range from $34,000 to $53,000. Home ownership rates vary within a 10% range. The difference in educational levels is within 5%, and percentages of children and elderly are both around 2%. The percentage of non-White is lowest in independent cities, and it is exactly the same for central cities and suburbs. The percent of Blacks is lowest in suburbs and nearly twice as much in central cities, whereas suburbs have the largest percent of Hispanics.

Table 4.12. Demographic Characteristics Based on Metro Status
(Mean values)

Variable	Central	Suburb	Independent	*N*
Population	178,651	63,661	36,711	936
SD	(475,265)	(44,133)	(8,919)	
High	8,008,278	478,403	80,537	
Low	25,514	26,156	25,575	
Density	3,255	5,034	1,757	936
SD	(2,618)	(4,795)	(847)	
High	26,403	52,825	4,144	
Low	153	366	11	
Growth Rate for 1980-2000[a]	28.8%	62.8%	21.9%	936
SD	(50.2)	(130.4)	(45.5)	
High	504.3%	1,818.8%	337.6%	
Low	-42.9%	-53.2%	-21.8%	
Median Income	$36,736	$52,947	$33,503	936
SD	(8,903)	(15,947)	(6,655)	
High	$90,377	$139,895	$62,034	
Low	$17,206	$19,544	$20,649	
Home Ownership	54.6%	64.0%	57.3%	936
SD	(9.9)	(14.7)	(9.6)	
High	85.4%	92.7%	70.2%	
Low	21.7%	18.2%	30.4%	

Variable	Central	Suburb	Independent	*N*
Bachelor's Degree or Higher	25.1%	28.7%	23.7%	936
SD	(12.0)	(15.1)	(11.0)	
High	74.4%	72.6%	64.2%	
Low	7.1%	2.3%	8.8%	
Children	24.6%	25.8%	23.8%	936
SD	(4.4)	(4.6)	(4.8)	
High	35.5%	39.5%	33.6%	
Low	5.8%	10.4%	9.7%	
Elderly	12.7%	11.9%	13.7%	936
SD	(3.8)	(5.0)	(3.9)	
High	33.1%	37.8%	26.8%	
Low	3.6%	3.2%	4.9%	
Non-White	36.0%	36.0%	25.4%	936
SD	(20.6)	(26.0)	(17.7)	
High	98.8%	99.0%	81.9%	
Low	3.2%	2.9%	5.4%	
Black	16.8%	8.9%	11.6%	935
SD	(17.1)	(14.4)	(14.7)	
High	97.7%	94.3%	69.6%	
Low	0.2%	0.2%	0.2%	
Hispanic	13.3%	17.9%	9.0%	936
SD	(16.1)	(20.2)	(13.4)	
High	94.1%	96.3%	74.6%	
Low	0.6%	0.5%	0.7%	
N	450	412	74	

Note. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.
[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other data are from the 2000 Decennial Census.

Figures for demographic characteristics of principal cities and non-principal cities are found in Table 4.13. Mean population is over three times as high in principal cities, but density is greater in non-principal cities. Growth rate, median income, and home ownership are all greater in non-principal cities. The percentage with a bachelor's degree or higher is 1% larger in principal cities. Non-principal cities have a percentage of children that is 1.3% higher, and their percentage of elderly is 0.2% less. Principal cities have a higher percentage of non-Whites and Blacks, but a lower percentage of Hispanics.

Table 4.13. Demographic Characteristics Based on Principal City Status (Mean values)

Variable	Principal	Non-Principal	*N*
Population	173,840	53,351	936
SD	(454,656)	(33,460)	
High	8,008,278	226,419	
Low	25,671	25,514	
Density	3,486	4,403	936
SD	(3,392)	(4,196)	
High	52,825	44,871	
Low	32	11	
Growth Rate for 1980-2000[a]	37.6%	49.5%	936
SD	(63.6)	(121.5)	
High	504.3%	1,818.8%	
Low	-53.2%	-42.9%	
Median Income	$39,854	$47,804	936
SD	(12,694)	(16,064)	
High	$100,411	$139,895	
Low	$17,206	$19,544	
Home Ownership	55.7%	62.6%	936
SD	(10.9)	(14.2)	
High	87.5%	92.7%	
Low	18.2%	19.9%	
Bachelor's Degree or Higher	27.0%	26.0%	936
SD	(12.8)	(14.2)	
High	74.4%	73.7%	
Low	5.9%	2.3%	
Children	24.4%	25.7%	936
SD	(4.4)	(4.6)	
High	38.5%	39.5%	
Low	5.8%	10.4%	
Elderly	12.5%	12.3%	936
SD	(4.0)	(4.7)	
High	33.1%	37.8%	
Low	3.6%	3.2%	

Variable	Principal	Non-Principal	*N*
Non-White	36.5%	33.6%	936
SD	(21.2)	(24.9)	
High	99.0%	98.8%	
Low	3.2%	2.9%	
Black	15.2%	10.3%	935
SD	(16.4)	(15.7)	
High	81.6%	97.7%	
Low	0.2%	0.2%	
Hispanic	13.9%	16.1%	936
SD	(16.7)	(19.4)	
High	94.1%	96.3%	
Low	0.6%	0.5%	
N	493	443	

Note. Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004.
[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other data are from the 2000 Decennial Census.

Comparison of Classifications

A careful review of these demographic tables suggests that the NLC typology provides a better distinction among cities based on the variables that influence cities' financial behaviors. One reason for this is that the NLC typology (with the inclusion of Mega-metro centers) provides seven categories of cities for comparison purposes, while the other methods have less, with region, form of government, metro status, and principal city status having only four, three, three, and two categories respectively. If the NLC classifications result in significant differences between categories of cities in terms of fiscal outputs, then the greater number of categories will be an advantage in comparing cities. (The statistical significance of the differences between the various categories is discussed later in this chapter.)

An illustration of how a classification system with more categories can give a better understanding of the differences between cities is available by examining the data for the variables reflecting racial composition under different classification methods. When cities are grouped based on their metro status, as shown in Table 4.12, both central cities and suburbs have the same percentage of residents who are non-White, whereas central cities have nearly twice as many Blacks and suburbs have a larger share of Hispanics. As depicted in Table 4.10, when the same data are considered under the NLC typology, two categories that generally correspond to the central city designation, Metro and Mega-metro centers, have 50% or more of their residents who are non-White, whereas in another, Spread cities, the percent non-White is only about half that amount. When suburban-type cities are considered, Gold coast cities and Boomtowns have about 25% of their residents who are non-White. However, Meltingpot cities have almost 71% of their residents who are non-White, which is the largest percentage of non-Whites for any of the typology classifications. Similarly, the data show that there is considerable variation among suburban-type cities in terms of mean percentages for Blacks and Hispanics.

Another reason why the NLC classifications may provide a better means of grouping cities for comparison purposes is that, in general, the city types within NLC's typology exhibit less variation among the cities' individual values on the variables being considered. A classification method more accurately represents the true nature of cities within its divisions when there is less dispersion, or variation, among the individual values assigned on variables for the different cities that make up the category.

To meaningfully compare the degree of dispersion of the values within categories with differing means, the standard deviations must be considered in relation to the means. One method of accomplishing this is to compare the coefficient of variation (*CV*) for the different categories. This figure is the ratio of the standard deviation to the mean. By comparing the coefficients of variation for the various classification schemes, one can see that the NLC typology offers a method of classification having less variation among the cities in each category for most of the variables under consideration.

For example, the variation in population sizes for the cities in the NLC classifications are: Spread (*CV* = .50); Gold coast (*CV* = .53); Metro centers (*CV* = .42); Meltingpot (*CV* = .62); Boomtowns (*CV* = .53); Centervilles (*CV* = .21); and Mega-metro centers (*CV* = 1.20). In comparison, variations in population for the different form of government classifications are: Mayor (*CV* = 3.36); Manager (*CV* = 1.37); and Commission (*CV* = 1.12). Variations in population based on the metro status of cities are: Central (*CV* = 2.66); Suburb (*CV* = .69); and Independent (*CV* = .24). Finally, classifying cities based on whether they are principal cities results in variations of: principal cities (*CV* = 2.62) and non-principal (*CV* = .63).

Only for the variable elderly does any other classification method result in categories having less variation, on average, than the NLC typology and here the difference is very slight. The average coefficient of variation for the NLC typology categories for elderly is 30%, whereas the average for the form of government classifications is 28%. All other classification methods have larger average variations than the NLC's typology on this variable.

With the exception of form of government, the NLC classification results in one of the lowest levels of variation within categories. In some areas, the NLC typology is similar to other methods of classifying cities in terms of the degree of variation within categories. The NLC typology and form of government classifications both have average coefficients of variation of 15% for the variable children. For the variable home ownership, the NLC typology (*CV* = .18) has slightly less variation than that for metro status (*CV* = .19). For the variable percent Black, the NLC typology (*CV* = 1.16) again has slightly less variation than in the regional classification (*CV* = 1.17). On the other demographic variables, the NLC typology has much less variation than the other classification methods. This overall lower level of variation within categories further suggests that the NLC typology is a better method of classifying cities for comparison purposes.

Fiscal Outputs

The fiscal outputs of the cities are also analyzed under the various classification methods. In comparing fiscal outputs of the cities, it should be noted that not all cities reported figures for all the financial variables. The Census Bureau data do not differentiate among cities that reported an amount of zero for a category and those who failed to report anything. The data simply lists zero for the value. The current study treats all zero values as missing data. Thus, the figures analyzed only include reported amounts greater than zero. This results in several of the financial variables having lower numbers of responses for some of the variables than others. Results reported for variables with low numbers of responses should be considered accordingly.

Table 4.14 reports the per capita levels of fiscal outputs for cities by region, as well as for the sample as a whole. Total expenditures and total revenues are the highest in the Northeast. Additionally, the Northeast spends the most on education, nearly three times the amounts reported in the Midwest and West. The Northeast also has the highest property tax revenue, but it has the lowest revenue from sales tax. The Northeast has income tax revenues that are around half the amount for the Midwest and a third as much as the South. No cities in the West report any revenue from income taxes. The Northeast reports the largest per capita amount of intergovernmental revenues, which are three times more than in any other region. It has the greatest percentage of intergovernmental revenues, with the South having the lowest. The South has the highest total debt, but the Northeast has the greatest level of total full faith and credit debt.

Table 4.14. Fiscal Outputs by Region
(Mean values expressed in per capita dollar amounts)

Variable	Northeast	Midwest	South	West	Total	*N*
EXPENDITURE:						
Total	2,500	1,377	1,843	1,441	1,677	936
SD	(1,374)	(621)	(1,198)	(991)	(1,097)	
High	8,354	5,757	11,635	8,306	11,635	
Low	322	507	85	231	85	
Common Functions	633	663	687	661	665	936
SD	(197)	(220)	(241)	(313)	(256)	
High	1,501	1,579	1,889	2,377	2,377	
Low	172	220	136	129	129	
Police	197	179	194	201	193	934
SD	(78)	(57)	(80)	(91)	(78)	
High	470	396	672	896	896	
Low	5	75	14	67	5	
Education	1,481	528	841	524	1,208	123
SD	(444)	(1,055)	(648)	(846)	(658)	
High	2,717	2,110	2,054	1,808	2,717	
Low	1	0	0	0	0	

Variable	Northeast	Midwest	South	West	Total	*N*
REVENUE:						
Total	2,380	1,307	1,783	1,455	1,630	936
SD	(1,285)	(567)	(1,157)	(977)	(1,048)	
High	7,561	4,588	10,888	9,054	10,888	
Low	298	408	54	277	54	
Property Tax	803	261	271	210	320	930
SD	(521)	(147)	(228)	(153)	(317)	
High	2,283	700	1,599	1,106	2,283	
Low	53	12	0	16	0	
Sales Tax	57	122	229	290	210	812
SD	(114)	(135)	(189)	(183)	(187)	
High	693	629	1,636	1,045	1,636	
Low	0	0	1	6	0	
Income Tax[a]	162	306	445	---	292	103
SD	(213)	(172)	(498)	---	(255)	
High	929	771	2,029	---	2,029	
Low	47	19	111	---	19	
Intergovernmental	960	283	297	219	357	934
SD	(776)	(201)	(429)	(198)	(459)	
High	3,647	2,527	3,828	2,222	3,828	
Low	46	44	3	39	3	
Percentage Intergovernmental	36.1%	22.4%	15.1%	16.6%	20.4%	936
SD	(17.0)	(10.3)	(12.3)	(9.2)	(13.5)	
High	78.0%	64.0%	58.0%	57.0%	78.0%	
Low	5.0%	4.0%	1.0%	2.0%	1.0%	
DEBT:						
Total	1,717	1,467	1,990	1,632	1,698	926
SD	(1,203)	(1,530)	(1,726)	(1,891)	(1,680)	
High	7,984	14,300	10,036	22,511	22,511	
Low	26	9	44	6	6	
Total Full Faith & Credit	1,239	670	770	649	782	770
SD	(876)	(551)	(786)	(848)	(784)	
High	5,334	3,175	6,850	6,992	6,992	
Low	96	3	1	1	1	
N	124	255	263	294	936	

Note. Values are rounded to the nearest dollar amount; 0 represents values less than $0.50. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]No Western cities reported any values for income tax.

Mean per capital values of financial outputs for the various city types within NLC's typology are shown in Table 14.15. Metro centers and Mega-metro centers spend the most overall – with total expenditures of approximately $2,400 and $3,400 respectively. The other city types spend from $1,200 to $1,700.

Table 4.15. Fiscal Outputs of City Types
Within National League of Cities' Typology
(Mean values expressed in per capita dollar amounts)

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	*N*
EXPENDITURE:								
Total	1,709	1,506	2,392	1,233	1,295	1,593	3,436	936
SD	(915)	(951)	(1,157)	(937)	(684)	(949)	(2,368)	
High	5,966	8,306	6,088	7,806	4,371	5,110	11,635	
Low	85	322	757	231	545	415	1,046	
Common Functions	666	668	802	538	629	622	997	936
SD	(216)	(298)	(241)	(214)	(270)	(168)	(313)	
High	2,339	2,377	1,753	1,545	2,033	1,042	1,889	
Low	220	136	390	129	251	252	417	
Police	182	203	236	196	168	154	284	934
SD	(58)	(98)	(72)	(66)	(95)	(38)	(116)	
High	488	848	528	578	896	256	672	
Low	75	5	101	85	80	73	146	
Education	1,072	1,286	1,629	1,773	404	1,096	951	123
SD	(561)	(426)	(629)	(478)	(762)	(611)	(862)	
High	2,213	1,755	2,717	2,352	1,546	1,711	2,110	
Low	0	1	41	1,056	5	1	0	
REVENUE:								
Total	1,664	1,477	2,257	1,249	1,308	1,569	3,005	936
SD	(920)	(967)	(1,073)	(919)	(645)	(959)	(2,144)	
High	6,077	9,054	5,344	7,561	4,400	5,507	10,888	
Low	54	298	875	277	511	401	935	
Property Tax	318	381	420	236	243	217	481	930
SD	(304)	(380)	(376)	(236)	(167)	(240)	(388)	
High	1,728	2,283	1,599	1,893	1,233	1,426	1,661	
Low	5	22	49	16	12	0	51	

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	*N*
Sales Tax	187	233	225	190	230	211	316	812
SD	(180)	(213)	(168)	(107)	(181)	(197)	(328)	
High	872	1,045	667	585	745	996	1,636	
Low	0	0	0	1	2	1	23	
Income Tax[a]	216	354	396	---	158	282	706	103
SD	(139)	(169)	(236)	---	(190)	(165)	(648)	
High	644	652	771	---	292	503	2,029	
Low	37	95	47	---	23	19	81	
Intergovernmental	362	231	754	301	176	285	855	934
SD	(366)	(160)	(824)	(461)	(165)	(288)	(990)	
High	2,348	805	3,647	2,510	1,099	1,488	3,828	
Low	7	10	57	15	3	22	70	
Percentage Intergovernmental	21.1%	17.0%	28.2%	21.8%	13.8%	19.4%	23.3%	936
SD	(13.4)	(8.9)	(19.1)	(14.1)	(9.0)	(13.2)	(15.6)	
High	66.0%	48.0%	77.0%	78.0%	37.0%	57.0%	58.0%	
Low	1.0%	1.0%	4.0%	1.0%	1.0%	1.0%	5.0%	
DEBT:								
Total	1,547	1,481	2,778	1,315	1,677	1,352	4,413	926
SD	(1,680)	(1,609)	(1,769)	(1,135)	(1,207)	(832)	(2,562)	
High	22,511	14,300	10,036	7,609	7,016	4,074	10,510	
Low	14	6	450	24	9	69	1,238	
Total Full Faith & Credit	681	782	1,128	706	725	664	1,493	770
SD	(611)	(948)	(1,002)	(641)	(544)	(544)	(1,316)	
High	3,184	6,992	5,334	3,293	2,492	2,317	6,850	
Low	1	3	6	5	1	24	207	
N	372	185	80	125	76	68	30	

Note. Values are rounded to the nearest dollar amount; 0 represents values less than $0.50. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]No Meltingpot cities reported any values for income tax.

Spending on common functions (which includes police, fire, health, sanitation, highways, and interest on debt combined) varies much less, with Mega-metro centers spending the most ($997) followed by Metro centers ($802). Meltingpot cities spend the least at around half the amount spent by Mega-metro centers. The remaining cities range from $622 to $688 on common function spending. There is a similar trend shown among cities in terms of their spending on police. Education spending varies widely, with Metro centers and Mega-metro centers spending four times as much as most of the other cities. Boomtowns spend the least at $21 per capita, being outspent by the two largest type cities by around 20 times as much. Many cities did not report educational spending levels or are not the responsible governing authority for education.

Table 4.15 also shows that the different types of cities have total revenues per capita slightly less than their total expenditures, with the exception of Meltingpot cities and Boomtowns which have overall revenues slightly higher than their expenditures. Gold coast cities depend on property tax more than other cities, raising around 26% of their revenue from that source. The other city types average from 14 to 19% of revenues coming from property taxes. The percentage of intergovernmental revenue is highest in Metro centers (28%) and lowest in Boomtowns (14%). Total debt is greatest in Mega-metro centers and Metro centers, at $4,400 and $2,800 per capita, while the other cities range from $1,300 to $1,700.

Cities with a council-manager form of government have the lowest total expenditures and revenues, as shown in Table 4.16. They receive the highest amounts of sales and income taxes, but get the lowest amount from property tax. Manager cities also have the lowest amount of intergovernmental revenues, as well as percentage of intergovernmental revenues. Commission cities have the lowest amount of total debt and mayor-council cities have the highest. Mayor cities also have the largest amount of full faith and credit debt.

Table 4.16. Fiscal Outputs Based on Forms of Government
(Mean values expressed in per capita dollar amounts)

Variable	Mayor	Manager	Commission	*N*
EXPENDITURE:				
Total	1,926	1,550	1,801	936
SD	(1,314)	(956)	(645)	
High	11,635	8,306	3,038	
Low	85	231	1,168	
Common Functions	688	652	729	936
SD	(261)	(254)	(204)	
High	1,889	2,377	1,109	
Low	172	129	465	
Police	197	190	215	934
SD	(80)	(78)	(77)	
High	672	896	431	
Low	5	14	125	
Education	1,319	1,042	949	123
SD	(655)	(593)	(1,071)	
High	2,717	1,878	1,989	
Low	0	1	17	
REVENUE:				
Total	1,836	1,524	1,757	936
SD	(1,211)	(948)	(618)	
High	10,888	9,054	3,027	
Low	54	277	1,206	
Property Tax	429	265	350	930
SD	(417)	(237)	(198)	
High	2,283	1,893	709	
Low	20	0	49	
Sales Tax	162	231	180	812
SD	(214)	(171)	(164)	
High	1,636	1,045	490	
Low	0	0	0	
Income Tax	278	324	289	103
SD	(285)	(177)	(186)	
High	2,029	771	481	
Low	19	89	111	
Intergovernmental	524	270	513	934
SD	(626)	(306)	(691)	
High	3,828	2,268	2,331	
Low	22	3	79	
Percentage Intergovernmental	25.6%	17.7%	24.6%	936
SD	(15.5)	(11.2)	(22.3)	
High	78.0%	66.0%	77.0%	
Low	2.0%	1.0%	6.0%	

Variable	Mayor	Manager	Commission	*N*
DEBT:				
Total	1,739	1,680	1,607	926
SD	(1,754)	(1,656)	(953)	
High	14,300	22,511	3,763	
Low	9	6	331	
Total Full Faith & Credit	894	724	644	770
SD	(844)	(748)	(614)	
High	6,850	6,992	2,025	
Low	9	1	6	
N	308	615	13	

Note. Values are rounded to the nearest dollar amount; 0 represents values less than $0.50. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

As can be seen in Table 4.17, suburbs have the lowest total expenditures, as well as expenditures on common functions and police of the three metro status categories. Independent cities have the lowest spending on education. Total revenues and intergovernmental revenues are lowest in suburbs and highest in central cities. Independent cities have the lowest levels of revenue from property, sales, and income taxes. Total debt and full faith and credit debt are both highest in central cities. Total debt is the lowest in suburbs, but independent cities have the lowest full faith and credit debt.

Table 4.17. Fiscal Outputs Based on Metro Status
(Mean values expressed in per capita dollar amounts)

Variable	Central	Suburb	Independent	*N*
EXPENDITURE:				
Total	1,991	1,318	1,766	936
SD	(1,221)	(806)	(1,114)	
High	11,635	8,306	5,966	
Low	85	231	610	
Common Functions	731	591	680	936
SD	(242)	(248)	(272)	
High	1,889	2,377	2,339	
Low	247	129	252	
Police	202	189	158	934
SD	(77)	(82)	(46)	
High	672	896	408	
Low	75	5	73	
Education	1,229	1,209	953	123
SD	(671)	(638)	(622)	
High	2,717	2,352	1,711	
Low	0	0	1	
REVENUE:				
Total	1,907	1,307	1,741	936
SD	(1,149)	(795)	(1,148)	
High	10,888	9,054	5,793	
Low	54	277	444	
Property Tax	349	304	233	930
SD	(352)	(277)	(275)	
High	2,283	2,050	1,630	
Low	2	5	0	
Sales Tax	221	201	197	812
SD	(199)	(173)	(190)	
High	1,636	1,045	996	
Low	0	0	1	
Income Tax	301	289	248	103
SD	(305)	(164)	(168)	
High	2,029	652	503	
Low	37	23	19	
Intergovernmental	465	250	287	934
SD	(571)	(297)	(230)	
High	3,828	2,331	1,173	
Low	8	3	22	
Percentage Intergovernmental	22.0%	18.9%	19.0%	936
SD	(14.9)	(11.7)	(12.7)	
High	78.0%	77.0%	57.0%	
Low	1.0%	1.0%	1.0%	

Variable	Central	Suburb	Independent	*N*
DEBT:				
Total	2,068	1,297	1,667	926
SD	(1,758)	(1,188)	(2,710)	
High	14,300	7,609	22,511	
Low	14	6	33	
Total Full Faith & Credit	882	682	662	770
SD	(854)	(721)	(518)	
High	6,850	6,992	2,638	
Low	3	1	7	
N	450	412	74	

Note. Values are rounded to the nearest dollar amount; 0 represents values less than $0.50. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 4.18 contains the fiscal output levels of cities based on whether or not they are principal cities. Principal cities have more total expenditures and they spend more on common functions and police, but less on education. All categories of revenues are higher in principal cities, but the percentage of intergovernmental revenues is slightly lower. Both total debt and full faith and credit debt are higher in principal cities.

Table 4.18. Fiscal Outputs Based on Principal City Status
(Mean values expressed in per capita dollar amounts)

Variable	Principal	Non-Principal	*N*
EXPENDITURE:			
Total	1,917	1,410	936
SD	(1,234)	(845)	
High	11,635	5,759	
Low	85	231	
Common Functions	734	589	936
SD	(261)	(228)	
High	2,339	2,377	
Low	136	129	

Variable	Principal	Non-Principal	*N*
Police	202	182	934
SD	(76)	(80)	
High	672	896	
Low	67	5	
Education	1,137	1,302	123
SD	(725)	(549)	
High	2,717	2,352	
Low	0	1	
REVENUE:			
Total	1,841	1,395	936
SD	(1,168)	(837)	
High	10,888	6,077	
Low	54	277	
Property Tax	330	309	930
SD	(327)	(304)	
High	2,283	1,702	
Low	15	0	
Sales Tax	236	180	812
SD	(198)	(169)	
High	1,636	1,021	
Low	0	0	
Income Tax	302	280	103
SD	(321)	(144)	
High	2,029	652	
Low	49	19	
Intergovernmental	399	309	934
SD	(515)	(382)	
High	3,828	2,510	
Low	3	7	
Percentage Intergovernmental	20.0%	20.7%	936
SD	(13.6)	(13.4)	
High	77.0%	78.0%	
Low	1.0%	1.0%	
DEBT:			
Total	2,041	1,313	926
SD	(1,991)	(1,125)	
High	22,511	7,016	
Low	14	6	
Total Full Faith & Credit	825	731	770
SD	(814)	(746)	
High	6,850	6,992	
Low	3	1	
N	493	443	

Note. Values are rounded to the nearest dollar amount; 0 represents values less than $0.50. Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

As seen with the demographic variables, the city types within the NLC typology tend to exhibit less variation among the cities' individual values than do most of the other classification methods on the fiscal output variables being considered. Comparing the coefficients of variation (*CV*) for the different categories, the NLC typology ranks lowest on five of the variables: common function expenditure, sales tax, income tax (tied with form of government), total debt, and full faith and credit debt. It has the second lowest coefficient of variation for police expenditure, intergovernmental revenue, and percentage intergovernmental revenue. On the variable of police expenditure, the NLC typology category (*CV* = .38) was essentially tied with metro status (*CV* = .37). On the variables total expenditure, education expenditure, total revenue, and property tax revenue, the NLC typology was in the middle of the classification schemes in terms of variation within categories. This low variation among the categories within the NLC typology further supports the hypothesis that it provides a better means of classifying cities.

Analysis of Variance for Demographic Variables

These first tables set out descriptive figures that suggest definite differences in the classification schemes, both in terms of demographics and government finance outputs. To test these indicated findings, comparison of means through oneway ANOVA testing was performed on each of the classifications of cities. The following tables set out the results of such testing. The effect sizes (eta^2) are reported for those variables showing statistical significance. Eta^2 is a measure that reflects the usefulness of predicting variation in an interval variable (*Y*) by knowing the category the case falls in on a categorical variable (*X*). In this regard, "The magnitude of eta^2 equals the proportion of the variation in *Y* that can be attributed to differences in *X*" (Bernstein & Dyer, 1984, p. 221).

Table 4.19 shows that all the demographic variables have statistically significant differences ($p < .01$) among the census regions, with the exception of population. The effect sizes range from a low of 1% for educational level to a high of 21% for both Black and Hispanic.

Table 4.19. Oneway ANOVA Results for Region and Demographics

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Population	Btwn groups	3.2E+011	3	1.080E+011	.96	.41	---
	W/in groups	1.1E+014	932	1.129E+011			
	Total	1.1E+014	935				
Density	Btwn groups	1.7E+009	3	581834649.22	45.6	.00	.13
	W/in groups	1.2E+010	932	12759445.69			
	Total	1.4E+010	935				
Growth Rate for 1980-2000[a]	Btwn groups	651752.23	3	217250.75	25.64	.00	.08
	W/in groups	7898617.8	932	8474.91			
	Total	8550370.1	935				
Median Income	Btwn groups	2.0E+010	3	6753702168.2	33.51	.00	.10
	W/in groups	1.9E+011	932	201522036.14			
	Total	2.1E+011	935				
Home Ownership	Btwn groups	20604.46	3	6868.15	46.56	.00	.13
	W/in groups	137474.71	932	147.51			
	Total	158079.17	935				
Bachelor's Degree or Higher	Btwn groups	2210.02	3	736.67	4.08	.01	.01
	W/in groups	168420.82	932	180.71			
	Total	170630.83	935				

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Children	Btwn groups	1128.18	3	376.06	19.17	.00	.06
	W/in groups	18284.02	932	19.62			
	Total	19412.20	935				
Elderly	Btwn groups	943.34	3	314.45	17.31	.00	.05
	W/in groups	16927.59	932	18.16			
	Total	17870.94	935				
Non-White	Btwn groups	80092.2	3	26697.4	59.44	.00	.16
	W/in groups	418606.03	932	449.15			
	Total	498698.22	935				
Black	Btwn groups	51004.44	3	17001.48	81.18	.00	.21
	W/in groups	195196.28	932	209.44			
	Total	246200.72	935				
Hispanic	Btwn groups	63906.13	3	21302.04	82.43	.00	.21
	W/in groups	240860.42	932	258.43			
	Total	304766.55	935				

Note. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.
[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 4.20 shows the results of similar testing of the different city types within the NLC typology categories for the demographic variables. All demographic variables in Table 4.20 are found to be statistically significantly different among the seven typology categories ($p < .01$). The strengths of these relationships span from around 50% for median income and the percentages of the population that are Hispanic and non-White to a low of 13% for the percent of the population that is Black.

Table 4.20. Oneway ANOVA Results for National League of Cities' Typology and Demographics

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Population	Btwn groups	4.1E+013	6	6.840E+012	98.45	.00	.39
	W/in groups	6.5E+013	929	69477669883			
	Total	1.1E+014	935				
Density	Btwn groups	3.4E+009	6	574371880.15	52.36	.00	.25
	W/in groups	1.0E+010	929	10969941.92			
	Total	1.4E+010	935				
Growth Rate for 1980-2000[a]	Btwn groups	3040875.7	6	506812.62	85.46	.00	.36
	W/in groups	5509494.4	929	5930.56			
	Total	8550370.1	935				
Median Income	Btwn groups	1.1E+011	6	18471364513	176.45	.00	.53
	W/in groups	9.7E+010	929	104684022.72			
	Total	2.1E+011	935				
Home Ownership	Btwn groups	45550.15	6	7591.69	62.67	.00	.29
	W/in groups	112529.03	929	121.13			
	Total	158079.17	935				
Bachelor's Degree or Higher	Btwn groups	51197.52	6	8532.92	66.37	.00	.30
	W/in groups	119433.31	929	128.56			
	Total	170630.83	935				
Children	Btwn groups	4901.94	6	816.99	52.31	.00	.25
	W/in groups	14510.25	929	15.62			
	Total	19412.20	935				
Elderly	Btwn groups	3793.59	6	632.27	41.73	.00	.21
	W/in groups	14077.35	929	15.15			
	Total	17870.94	935				
Non-White	Btwn groups	238161.41	6	39693.57	141.54	.00	.48
	W/in groups	260536.81	929	280.45			
	Total	498698.22	935				
Black	Btwn groups	32199.13	6	5366.52	23.30	.00	.13
	W/in groups	214001.59	929	230.36			
	Total	246200.72	935				
Hispanic	Btwn groups	150479.56	6	25079.93	151.01	.00	.49
	W/in groups	154286.99	929	166.08			
	Total	304766.55	935				

Note. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan.

[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

In Table 4.21, it can be seen that oneway ANOVA testing finds all of the demographic variables, with the exception of children, have statistically significant differences (p <.01) between the categories of city type based on form of government. However, the largest effect sizes are only 4%.

Table 4.21. Oneway ANOVA Results for Form of Government and Demographics

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Population	Btwn groups	1.1E+012	2	5.477E+011	4.89	.01	.01
	W/in groups	1.0E+014	933	1.120E+011			
	Total	1.1E+014	935				
Density	Btwn groups	4.0E+008	2	197919698.49	13.95	.00	.03
	W/in groups	1.3E+010	933	14192355.77			
	Total	1.4E+010	935				
Growth Rate for 1980-2000[a]	Btwn groups	298102.83	2	149051.41	16.85	.00	.04
	W/in groups	8252267.2	933	8844.87			
	Total	8550370.1	935				
Median Income	Btwn groups	8.6E+009	2	4289797502.8	20.06	.00	.04
	W/in groups	2.0E+011	933	213826419.27			
	Total	2.1E+011	935				
Home Ownership	Btwn groups	2834.33	2	1417.17	8.52	.00	.02
	W/in groups	155244.84	933	166.39			
	Total	158079.17	935				
Bachelor's Degree or Higher	Btwn groups	4166.63	2	2083.32	11.68	.00	.02
	W/in groups	166464.2	933	178.42			
	Total	170630.83	935				
Children	Btwn groups	109.38	2	54.69	2.64	.07	---
	W/in groups	19302.82	933	20.69			
	Total	19412.2	935				
Elderly	Btwn groups	204.42	2	102.21	5.4	.01	.01
	W/in groups	17666.52	933	18.94			
	Total	17870.94	935				
Non-White	Btwn groups	4756.24	2	2378.12	4.49	.01	.01
	W/in groups	493941.98	933	529.41			
	Total	498698.22	935				
Black	Btwn groups	8065.96	2	4032.98	15.8	.00	.03
	W/in groups	238134.76	933	255.24			
	Total	246200.72	935				
Hispanic	Btwn groups	11423.38	2	5711.69	18.17	.00	.04
	W/in groups	293343.17	933	314.41			
	Total	304766.55	935				

Note. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.
[a]Data Source for Growth Rate:U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 4.22 shows there are significant differences (p <.01) between categories of cities based on metro status and all the demographic variables, with the strongest relationship being median income at 31%.

Table 4.22. Oneway ANOVA Results for Metro Status and Demographics

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Population	Btwn groups	3.4E+012	2	1.680E+012	15.33	.00	.03
	W/in groups	1.0E+014	933	1.096E+011			
	Total	1.1E+014	935				
Density	Btwn groups	1.1E+009	2	528461075.11	39.19	.00	.08
	W/in groups	1.3E+010	933	13483799.76			
	Total	1.4E+010	935				
Growth Rate for 1980-2000[a]	Btwn groups	284378.33	2	142189.16	16.05	.00	.03
	W/in groups	8265991.7	933	8859.58			
	Total	8550370.1	935				
Median Income	Btwn groups	6.5E+010	2	32369804690	210.7	.00	.31
	W/in groups	1.4E+011	933	153633477.82			
	Total	2.1E+011	935				
Home Ownership	Btwn groups	19223.01	2	9611.51	64.58	.00	.12
	W/in groups	138856.16	933	148.83			
	Total	158079.17	935				
Bachelor's Degree or Higher	Btwn groups	3408.43	2	1704.21	9.51	.00	.02
	W/in groups	167222.41	933	179.23			
	Total	170630.83	935				
Children	Btwn groups	460.84	2	230.42	11.34	.00	.02
	W/in groups	18951.35	933	20.31			
	Total	19412.2	935				
Elderly	Btwn groups	291.84	2	145.92	7.75	.00	.02
	W/in groups	17579.1	933	18.84			
	Total	17870.94	935				
Non-White	Btwn groups	7642.8	2	3821.4	7.26	.00	.02
	W/in groups	491055.42	933	526.32			
	Total	498698.22	935				
Black	Btwn groups	13568.31	2	6784.16	27.21	.00	.06
	W/in groups	232632.41	933	249.34			
	Total	246200.72	935				

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Hispanic	Btwn groups	7314.71	2	3657.36	11.47	.00	.02
	W/in groups	297451.84	933	318.81			
	Total	304766.55	935				

Note. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.
[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

As seen in Table 4.23, there are statistically significant differences ($p < .01$) between principal cities and non-principal cities for six demographic variables: population, density, median income, home ownership, children, and percent Black. Non-White is significant at the .05 level. The two variables with the highest effect sizes (7%) are median income and home ownership.

Table 4.23. Oneway ANOVA Results for Principal City Status and Demographics

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Population	Btwn groups	3.4E+012	1	3.387E+012	30.96	.00	.03
	W/in groups	1.0E+014	934	1.094E+011			
	Total	1.1E+014	935				
Density	Btwn groups	2.0E+008	1	196210119.75	13.63	.00	.01
	W/in groups	1.3E+010	934	14390896.37			
	Total	1.4E+010	935				
Growth Rate for 1980-2000[a]	Btwn groups	32896.24	1	32896.24	3.61	.06	---
	W/in groups	8517473.8	934	9119.35			
	Total	8550370.1	935				
Median Income	Btwn groups	1.5E+010	1	14747700063	71.25	.00	.07
	W/in groups	1.9E+011	934	206993516.19			
	Total	2.1E+011	935				
Home Ownership	Btwn groups	11305.59	1	11305.59	71.94	.00	.07
	W/in groups	146773.58	934	157.15			
	Total	158079.17	935				
Bachelor's Degree or Higher	Btwn groups	251.65	1	251.65	1.38	.24	---
	W/in groups	170379.19	934	182.42			
	Total	170630.83	935				

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Children	Btwn groups	373.70	1	373.70	18.33	.00	.02
	W/in groups	19038.49	934	20.38			
	Total	19412.2	935				
Elderly	Btwn groups	20.28	1	20.28	1.06	.30	---
	W/in groups	17850.65	934	19.11			
	Total	17870.94	935				
Non-White	Btwn groups	2014.21	1	2014.21	3.79	.05	---
	W/in groups	496684.01	934	531.78			
	Total	498698.22	935				
Black	Btwn groups	5573.69	1	5573.69	21.63	.00	.02
	W/in groups	240627.03	934	257.63			
	Total	246200.72	935				
Hispanic	Btwn groups	1134.33	1	1134.33	3.49	.06	---
	W/in groups	303632.23	934	325.09			
	Total	304766.55	935				

Note. Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004.

[a]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

As the results of the ANOVA testing show, there are statistically significant differences between the city-type categories in the NLC typology and the metro status classifications for all of the demographic variables. In the region and form of government classifications, the categories have significant differences on all demographic variables except one, whereas classification based on principal city status has significant differences on only 6 out of the 11 variables. However, while most of the classification schemes have statistically significant differences between categories of cities on most of the demographic variables, the strength of the relationships are clearly greater in the NLC typology than in any of the others. This supports the hypothesis that, in terms of demographic variables, the typology provides a better method of classifying cities for comparison purposes.

Analysis of Variance for Fiscal Outputs

Table 4.24 shows the results of oneway ANOVA testing of cities classified by census region in terms of fiscal output levels. All financial variables except expenditures on common functions have statistically significant differences at the level of <.01 between regions. The strongest relationship is with the amount of property tax revenue and the weakest are police expenditures and total debt levels.

Table 4.24. Oneway ANOVA Results for Region and Fiscal Outputs

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Total Expenditure	Btwn groups	1.3E+008	3	43541615.59	40.81	.00	.12
	W/in groups	9.9E+008	932	1066935.25			
	Total	1.1E+009	935				
Common Functions	Btwn groups	230230.27	3	76743.43	1.17	.32	---
	W/in groups	61362722	932	65839.83			
	Total	61592952	935				
Police	Btwn groups	72425.16	3	24141.72	3.97	.01	.01
	W/in groups	5660406.7	930	6086.46			
	Total	5732831.9	933				
Education	Btwn groups	15641497	3	5213832.48	16.71	.00	.30
	W/in groups	37135165	119	312060.21			
	Total	52776663	122				
Total Revenue	Btwn groups	1.1E+008	3	37162392.31	37.84	.00	.11
	W/in groups	9.2E+008	932	982088.78			
	Total	1.0E+009	935				
Property Tax	Btwn groups	34018967	3	11339655.67	177.64	.00	.37
	W/in groups	59111157	926	63834.94			
	Total	93130124	929				
Sales Tax	Btwn groups	5151604	3	1717201.35	59.57	.00	.18
	W/in groups	23292011	808	28826.75			
	Total	28443615	811				
Income Tax	Btwn groups	705447.81	2	352723.90	5.96	.00	.11
	W/in groups	5919091.7	100	59190.92			
	Total	6624539.5	102				
Intergovern-mental Revenue	Btwn groups	53010987	3	17670328.95	114.43	.00	.27
	W/in groups	1.4E+008	930	154415.56			
	Total	2.0E+008	933				

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Percent Intergovern-mental	Btwn groups	4.37	3	1.46	106.73	.00	.26
	W/in groups	12.73	932	.01			
	Total	17.11	935				
Total Debt Outstanding	Btwn groups	36873329	3	12291109.61	4.4	.00	.01
	W/in groups	2.6E+009	922	2791436.41			
	Total	2.6E+009	925				
Full Faith & Credit Debt	Btwn groups	32131045	3	10710348.21	18.6	.00	.07
	W/in groups	4.4E+008	766	575749.11			
	Total	4.7E+008	769				

Note. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

The stated hypotheses all predict there will be significant differences (at the level of <.05) among the categories in the NLC typology in terms of the fiscal output measures relating to expenditure, revenue, and debt levels, as well as sources of revenue and types of debt. To test these hypotheses, a comparison of means for the fiscal outputs among different NLC typology categories is also performed through oneway ANOVA testing. Table 4.25 shows the results of this testing.

All fiscal output variables are found to be significantly different (p <.01) among the categories of city types, further supporting the hypotheses. The effect size (eta^2) for each of the fiscal output variables is also reported; overall, they are lower than those for the demographic variables. These findings show that the strength of the relationship is greatest between the NLC typology and income tax (27%), education expenditures (21%), and total expenditures (16%). The relationships are weakest between typology and per capita amounts of sales tax (2%), property tax (5%), full faith and credit debt (6%), and percent intergovernmental revenue (7%). The strengths of the remaining relationships range from 11 to 14%.

Table 4.25. Oneway ANOVA Results for National League of Cities' Typology and Fiscal Outputs

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Total Expenditure	Btwn groups	1.8E+008	6	29284875.50	28.66	.00	.16
	W/in groups	9.5E+008	929	1021850.65			
	Total	1.1E+009	935				
Common Functions	Btwn groups	7049838.0	6	1174973.00	20.01	.00	.11
	W/in groups	54543114	929	58711.64			
	Total	61592952	935				
Police	Btwn groups	617993.33	6	102998.89	18.67	.00	.11
	W/in groups	5114838.5	927	5517.63			
	Total	5732831.9	933				
Education	Btwn groups	10911668	6	1818611.27	5.04	.00	.21
	W/in groups	41864995	116	360905.13			
	Total	52776663	122				
Total Revenue	Btwn groups	1.2E+008	6	19855383.09	20.32	.00	.12
	W/in groups	9.1E+008	929	977030.81			
	Total	1.0E+009	935				
Property Tax	Btwn groups	4312379.7	6	718729.95	7.47	.00	.05
	W/in groups	88817745	923	96227.24			
	Total	93130124	929				
Sales Tax	Btwn groups	653026.69	6	108837.78	3.15	.01	.02
	W/in groups	27790589	805	34522.47			
	Total	28443615	811				
Income Tax	Btwn groups	1760294.8	5	352058.95	7.02	.00	.27
	W/in groups	4864244.7	97	50146.85			
	Total	6624539.5	102				
Intergovern-mental Revenue	Btwn groups	26263187	6	4377197.79	23.82	.00	.13
	W/in groups	1.7E+008	927	183769.44			
	Total	2.0E+008	933				
Percent Intergovern-mental	Btwn groups	1.14	6	.19	11.07	.00	.07
	W/in groups	15.97	929	.02			
	Total	17.11	935				
Total Debt Outstanding	Btwn groups	3.6E+008	6	59621447.67	24.32	.00	.14
	W/in groups	2.3E+009	919	2451413.50			
	Total	2.6E+009	925				
Full Faith & Credit Debt	Btwn groups	29021092	6	4836848.67	8.31	.00	.06
	W/in groups	4.4E+008	763	582088.82			
	Total	4.7E+008	769				

Note. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 4.26 shows that the different forms of government have statistically significant differences (at the level <.01) for the variables total expenditures, total revenues, property and sales tax revenues, intergovernmental revenues, percentage of intergovernmental revenues, and full faith and credit debt. The strongest of these relationships is between form of government and percent intergovernmental revenues at just 8%.

Table 4.26. Oneway ANOVA Results for Form of Government and Fiscal Outputs

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Total Expenditure	Btwn groups	29310832	2	14655415.97	12.48	.00	.03
	W/in groups	1.1E+009	933	1174381.21			
	Total	1.1E+009	935				
Common Functions	Btwn groups	281916.96	2	140958.48	2.15	.12	---
	W/in groups	61311035	933	65713.86			
	Total	61592952	935				
Police	Btwn groups	17272.01	2	8636.01	1.41	.25	---
	W/in groups	5715559.8	931	6139.16			
	Total	5732831.9	933				
Education	Btwn groups	2411232.6	2	1205616.32	2.87	.06	---
	W/in groups	50365430	120	419711.92			
	Total	52776663	122				
Total Revenue	Btwn groups	20202620	2	10101309.89	9.36	.00	.02
	W/in groups	1.0E+009	933	1078875.99			
	Total	1.0E+009	935				
Property Tax	Btwn groups	5495464.6	2	2747732.32	29.07	.00	.06
	W/in groups	87634660	927	94535.77			
	Total	93130124	929				
Sales Tax	Btwn groups	822489.67	2	411244.84	12.05	.00	.03
	W/in groups	27621126	809	34142.31			
	Total	28443615	811				
Income Tax	Btwn groups	44830.16	2	22415.08	.34	.71	---
	W/in groups	6579709.3	100	65797.09			
	Total	6624539.5	102				
Intergovern-mental Revenue	Btwn groups	13558065	2	6779032.55	34.48	.00	.07
	W/in groups	1.8E+008	931	196626.63			
	Total	2.0E+008	933				
Percent Intergovern-mental	Btwn groups	1.31	2	0.66	38.81	.00	.08
	W/in groups	15.79	933	0.02			
	Total	17.11	935				

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta²
Total Debt Outstanding	Btwn groups	793849.98	2	396924.99	.14	.87	---
	W/in groups	2.6E+009	923	2827501.46			
	Total	2.6E+009	925				
Full Faith & Credit Debt	Btwn groups	5283728.7	2	2641864.33	4.33	.01	.01
	W/in groups	4.7E+008	767	610001.48			
	Total	4.7E+008	769				

Note. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 4.27 shows there are statistically significant differences (p <.01) among cities with different metro statuses for all the fiscal output variables, except education spending and sales and income tax revenues. The strongest relationships are found in total expenditures (9%) and total revenues (8%).

Table 4.27. Oneway ANOVA Results for Metro Status and Fiscal Outputs

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta²
Total Expenditure	Btwn groups	97798061	2	48899030.55	44.41	.00	.09
	W/in groups	1.0E+009	933	1100975.82			
	Total	1.1E+009	935				
Common Functions	Btwn groups	4172929.1	2	2086464.57	33.9	.00	.07
	W/in groups	57420023	933	61543.43			
	Total	61592952	935				
Police	Btwn groups	132217.22	2	66108.61	10.99	.00	.02
	W/in groups	5600614.6	931	6015.7			
	Total	5732831.9	933				
Education	Btwn groups	491760.77	2	245880.39	.56	.57	---
	W/in groups	52284902	120	435707.52			
	Total	52776663	122				
Total Revenue	Btwn groups	78310408	2	39155204.07	38.52	.00	.08
	W/in groups	9.5E+008	933	1016595.41			
	Total	1.0E+009	935				
Property Tax	Btwn groups	1048532.7	2	524266.38	5.28	.01	.01
	W/in groups	92081592	927	99332.89			
	Total	93130124	929				
Sales Tax	Btwn groups	84568.84	2	42284.42	1.21	.30	---
	W/in groups	28359046	809	35054.45			
	Total	28443615	811				

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Income Tax	Btwn groups	23763.23	2	11881.62	.18	.84	---
	W/in groups	6600776.2	100	66007.76			
	Total	6624539.5	102				
Intergovern-mental Revenue	Btwn groups	10335631	2	5167815.48	25.83	.00	.05
	W/in groups	1.9E+008	931	200087.89			
	Total	2.0E+008	933				
Percent Intergovern-mental	Btwn groups	0.23	2	0.11	6.33	.00	.01
	W/in groups	16.88	933	0.02			
	Total	17.11	935				
Total Debt Outstanding	Btwn groups	1.3E+008	2	63187571.72	23.48	.00	.05
	W/in groups	2.5E+009	923	2691443.72			
	Total	2.6E+009	925				
Full Faith & Credit Debt	Btwn groups	7975169.4	2	3987584.69	6.58	.00	.02
	W/in groups	4.7E+008	767	606492.43			
	Total	4.7E+008	769				

Note. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

As can be seen in Table 4.28, statistically significant differences ($p < .01$) are found between principal cities and non-principal cities on all financial variables other than education spending, property and income tax revenues, percentage intergovernmental revenues, and full faith and credit debt. The strongest relationship is with expenditures on common functions at 8%.

Table 4.28. Oneway ANOVA Results for Principal City Status and Fiscal Outputs

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Total Expenditure	Btwn groups	59862708	1	59862707.55	52.49	.00	.05
	W/in groups	1.1E+009	934	1140413.06			
	Total	1.1E+009	935				
Common Functions	Btwn groups	4759580.6	1	4759580.61	78.22	.00	.08
	W/in groups	56833371	934	60849.43			
	Total	61592952	935				
Police	Btwn groups	98858.40	1	98858.40	16.35	.00	.02
	W/in groups	5633973.5	932	6045.04			
	Total	5732831.9	933				

Dep. Var.		Sum of Squares	*df*	Mean square	*F*	Sig.	Eta^2
Education	Btwn groups	823223.36	1	823223.36	1.92	.17	---
	W/in groups	51953439	121	429367.27			
	Total	52776663	122				
Total Revenue	Btwn groups	46444735	1	46444734.68	44.25	.00	.05
	W/in groups	9.8E+008	934	1049624.4			
	Total	1.0E+009	935				
Property Tax	Btwn groups	93543.32	1	93543.32	0.93	.33	---
	W/in groups	93036581	928	100254.94			
	Total	93130124	929				
Sales Tax	Btwn groups	611811.43	1	611811.43	17.81	.00	.02
	W/in groups	27831804	810	34360.25			
	Total	28443615	811				
Income Tax	Btwn groups	12497.06	1	12497.06	0.19	.66	---
	W/in groups	6612042.4	101	65465.77			
	Total	6624539.5	102				
Intergovern-mental Revenue	Btwn groups	1917114.4	1	1917114.45	9.18	.00	.01
	W/in groups	1.9E+008	932	208905.95			
	Total	2.0E+008	933				
Percent Intergovern-mental	Btwn groups	0.01	1	0.01	0.6	.44	---
	W/in groups	17.1	934	0.02			
	Total	17.11	935				
Total Debt Outstanding	Btwn groups	1.2E+008	1	122099533.41	45.34	.00	.05
	W/in groups	2.5E+009	924	2693158.18			
	Total	2.6E+009	925				
Full Faith & Credit Debt	Btwn groups	1683024.7	1	1683024.73	2.74	.10	---
	W/in groups	4.7E+008	768	613895.62			
	Total	4.7E+008	769				

Note. Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data source for Fiscal Outputs: U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

The ANOVA testing results for the fiscal outputs of the different classification methods show that only the NLC typology has statistically significant differences between its city types and all of the fiscal output measures. The strength of the relationships ranges from 2 to 27%. Only the regional classification has any relationships that are stronger -- property and sale taxes, percent intergovernmental revenue, and education expenditures. These findings further support the hypothesis that the NLC typology is a better means of classification than other methods.

Distribution of Cities Within National League of Cities' Typology Based on Designations Used in Prior Classification Schemes

Thus far, the analysis has compared demographic and fiscal variables for cities that have been grouped according to the various classification methods. To gain an even better understanding of the differences among the NLC typology categories, the different NLC typology categories are examined in terms of their form of government, metro status, and principal city makeup.

Table 4.29 shows that Spread cities and Metro centers are the typology categories most evenly divided between mayor and manager cities. Gold coast and Meltingpot cities and Boomtowns all have a 4:1 or greater ratio of manager to mayor cities. Among Centervilles, there are more than twice as many cities with managers than mayors. Mega-metro centers have the opposite composition, with twice as many mayor cities.

Table 4.29. Form of Government in
National League of Cities' Typology Cities
(Percentages)

Form of Government	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Mayor	44.1	21.1	40.0	16.0	15.8	30.9	66.7
Manager	54.0	78.9	57.5	82.4	84.2	67.6	30.0
Commission	1.9	0.0	2.5	1.6	0.0	1.5	3.3
N	372	185	80	125	76	68	30

Note. X^2 (12, N = 936) = 85.74, p = .01. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.

After controlling for region, Table 4.30 shows that the distribution of cities within the NLC typology based on forms of government changes drastically in some categories. Among Spread cities, the percentage of mayor cities increases by more than 30% in the Northeast and 13% in the Midwest, whereas it decreases by around 20% in both the

Table 4.30. Forms of Government of National League of Cities' Typology Cities by Region (Percentages)

Location and Form of Government	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
NORTHEAST							
Mayor	77.0	72.7	81.3	62.5	0.0	66.7	100.0
Manager	21.3	27.3	18.8	25.0	0.0	33.3	0.0
Commission	1.6	0.0	0.0	12.5	0.0	0.0	0.0
MIDWEST							
Mayor	57.3	23.8	40.0	75.0	22.2	45.5	100.0
Manager	40.3	76.2	53.3	25.0	77.8	54.5	0.0
Commission	2.4	0.0	6.7	0.0	0.0	0.0	0.0
SOUTH							
Mayor	23.6	20.8	37.0	10.5	17.9	28.0	53.8
Manager	74.0	79.2	59.3	89.5	82.1	72.0	46.2
Commission	2.4	0.0	3.7	0.0	0.0	0.0	0.0
WEST							
Mayor	26.7	3.9	13.6	2.4	10.0	0.0	55.6
Manager	73.3	96.1	86.4	97.6	90.0	93.3	33.3
Commission	0.0	0.0	0.0	0.0	0.0	6.7	11.1
N	372	185	80	125	76	68	30

Note. Northeast: X^2 (10, N = 124) = 10.17, p = .43; Midwest: X^2 (12, N = 255) = 38.25, p = .01; South: X^2 (12, N = 263) = 14.60, p = .26; West: X^2 (12, N = 294) = 70.87, p = .01. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.

South and West. The proportion of Gold coast cities with mayors is more than three times as great in the Northeast region, while the number of manager cities increases by around 15% in the West. The percent of Metro centers with mayors in the Northeast region more than doubles, and the percentage of managers increases by nearly 30% in the West.

The percent of mayors in Meltingpot cities increases nearly four fold in the Northeast and even more than that in the Midwest. There are no Boomtowns in the Northeast, but their distribution changes the least of any type city in the other three regions. The share of Centervilles with mayors doubles in the Northeast and increases by half in the Midwest, while dropping to zero in the West. All Mega-metro centers in the Northeast and Midwest are mayor cities, whereas the number of mayor cities is just over 50% in the South and West.

In terms of metro status, Table 4.31 shows that Spread cities have over two and a half times as many central cities as suburbs. Metro centers are almost all central cities and Mega-metro centers are entirely composed of central cities. Centervilles are more than two thirds independent cities, with less than 3% suburbs. The remaining city types are mostly suburbs.

Table 4.31. Metro Status of National League of Cities' Typology Cities (Percentages)

Metro Status	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Central	68.0	15.1	93.8	25.6	17.1	27.9	100.0
Suburb	25.8	83.8	6.3	73.6	81.6	2.9	0.0
Independent	6.2	1.1	0.0	0.8	1.3	69.1	0.0
N	372	185	80	125	76	68	30

Note. X^2 (12, N = 936) = 722.39, p = .01. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.

After controlling for region, the distribution of cities based on their metro status remains much more stable than with form of government. As shown in Table 4.32, Mega-metro centers remain all central cities, while Metro centers change the least of the other types. Among the Metro centers, there is a 2% increase in central cities in the South and a 3% increase in the West. The greatest change for Spread cities occurs in the South, where there is a 12% decline in suburbs. Gold coast cities change the most in the Northeast, with increases in central cities of 8% and independent cities of 4%, and a reduction in suburbs of 11%.

Among Meltingpot cities, there is a change from suburbs to central cities of 16% in the South and 12% in the Midwest. There are no Boomtowns in the Northeast, and the largest change is in the Midwest where the percentage of suburbs increases by 12%. Centervilles undergo the most widespread change after region is controlled. There is a 22% increase in central cities in the Northeast, with a 3% reduction in suburbs and 19%

fewer independent cities. Independent cities increase by 13% in the Midwest, with 3% shifting from suburbs and 10% from central cities. In the South, independent cities undergo a reduction of 9%, while central cities increase by 8% and suburbs by 1%. Central cities in the West are reduced by 8%, with the loss shifting evenly to suburbs and independent cities.

Table 4.32. Metro Status of National League of Cities' Typology Cities by Region (Percentages)

Location and Form of Government	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
NORTHEAST							
Central	72.1	22.7	93.8	18.8	0.0	50.0	100.0
Suburb	26.2	72.7	6.3	81.3	0.0	0.0	0.0
Independent	1.6	4.5	0.0	0.0	0.0	50.0	0.0
MIDWEST							
Central	58.9	7.9	93.3	37.5	5.6	18.2	100.0
Suburb	36.3	92.1	6.7	62.5	94.4	0.0	0.0
Independent	4.8	0.0	0.0	0.0	0.0	81.8	0.0
SOUTH							
Central	78.7	12.5	96.3	42.1	25.0	36.0	100.0
Suburb	14.2	87.5	3.7	57.9	75.0	4.0	0.0
Independent	7.1	0.0	0.0	0.0	0.0	60.0	0.0
WEST							
Central	60.0	19.7	90.9	22.0	16.7	20.0	100.0
Suburb	28.3	78.9	9.1	76.8	80.0	6.7	0.0
Independent	11.7	1.3	0.0	1.2	3.3	73.3	0.0
N	372	185	80	125	76	68	30

Note. Northeast: X^2 (10, N = 124) = 74.38, p = .01; Midwest: X^2 (12, N = 255) = 238.47, p = .01; South: X^2 (12, N = 263) = 196.82, p = .01; West: X^2 (12, N = 294) = 200.96, p = .01. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data Source for Metro Status: International City/County Management Association

(ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.

Table 4.33 shows the principal city status of the typology cities. Metro centers are almost all principal cities, whereas Mega-metro centers are all principal cities. In contrast, almost none of the Centervilles are principal cities. Spread cities have a little more than twice as many principal cities, whereas Gold coast and Meltingpot cities and Boomtowns have about twice as many non-principal cities.

Table 4.33. Principal City Status of National League of Cities' Typology Cities (Percentages)

City Status	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Principal	68.3	35.7	93.8	32.8	31.6	4.4	100.0
Non-Principal	31.7	64.3	6.3	67.2	68.4	95.6	0.0
N	372	185	80	125	76	68	30

Note. X^2 (6, N = 936) = 235.79, p = .01. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004.

Table 4.34 reports the percentages of principal cities in each NLC typology category after controlling for region. Because they are all principal cities, Mega-metro centers have no change. There is a 14% reduction in principal cities in the Northeast, and a 10% reduction in the Midwest. Principal cities increase by 14% in the South and by 7% in the West. Principal cities decrease by 4% in the Northeast, 11% in the Midwest, and

3% in the South, but they increase by 10% in the West. For Metro centers, there is a 19% reduction in the percentage of principal cities in the Northeast, while they increase by 2% in the South. All Metro centers in the Midwest and West are principal cities.

The percentage of principal cities among both Meltingpot cities and Boomtowns decreases in the Northeast and Midwest, but goes up in the South and West. All Centervilles in the Midwest and South are principal cities, whereas there is a 13% increase in the share of principal cities in the Northeast and a 9% decline in the West.

Table 4.34. Principal City Status of National League of Cities' Typology Cities by Region (Percentages)

City Status	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
NORTHEAST							
Principal	54.1	31.8	75.0	18.8	0.0	16.7	100.0
Non-Principal	45.9	68.2	25.0	81.3	0.0	83.3	0.0
MIDWEST							
Principal	58.1	25.4	100.0	12.5	16.7	0.0	100.0
Non-Principal	41.9	74.6	0.0	87.5	83.3	100.0	0.0
SOUTH							
Principal	81.9	33.3	96.3	42.1	35.7	0.0	100.0
Non-Principal	18.1	66.7	3.7	57.9	64.3	100.0	0.0
WEST							
Principal	75.0	46.1	100.0	35.4	36.7	13.3	100.0
Non-Principal	25.0	53.9	0.0	64.6	63.3	86.7	0.0
N	372	185	80	125	76	68	30

Note. Northeast: X^2 (5, N = 124) = 18.99, p = .01; Midwest: X^2 (6, N = 255) = 70.25, p = .01; South: X^2 (6, N = 263) = 105.42, p = .01; West: X^2 (6, N = 294) = 63.31, p = .01. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of

Commerce, 2000. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004.

These tables show that the city types within NLC's typology vary in their composition in terms of the traditional classifications of form of government and metro status, as well as the new designation of principal city. The analysis now turns to an examination of the specific designations within the different classification schemes to see whether the differences that exist between individual types of cities are statistically significant.

Student's *t*-test Analysis

The analysis of variance testing discussed previously compares the means of different categories of cities and shows, overall, there are statistically significant differences between the categories within a particular classification scheme. The analysis in this study also tests to see whether there are statistically significance differences between any two individual categories. This is done through comparison of means testing by performing Student's *t*-test analysis on each of the various city types against all others in the same classification scheme.

The Student's *t*-test is a method of comparing the means of two different groups when they are independent samples. For example, the mean value of each demographic and fiscal variable for Spread cities is individually compared with the mean value on the same variable for each of the other six types of cities within the typology. The results of this testing show whether there is a statistically significant difference between the two type cities on each variable.

To provide a clear, visual impression of all the statistical differences that exist between city types, the results are presented in separate tables reporting the level of significance (either <.01 or <.05), if any, for the city type being tested. Blank cells represent no statistically significant differences between the two categories on the variable reported upon. Each table contains the results of testing for either demographic factors or fiscal outputs for a particular city type.

Because the main interest of this study is the NLC typology, this portion of the analysis begins by reporting the results of comparisons among the different type cities within the typology. Table 4.35 shows the results of the comparisons of mean values performed on demographic variables between Spread cities and each of the other cities within the NLC typology. The testing shows that Spread cities have the most differences with Meltingpot cities and Boomtowns.

Spread and Meltingpot cities have statistically significant differences (all at the <.01 level) on all demographic variables except percent Black. Spread cities and Boomtowns have differences, which are statistically significant at the <.01 level, on all variables except percent non-White. The table also shows that Spread cities are most similar to Centervilles, having statistically significant differences between only three demographic variables: population, density, and median income. The table also shows that the vast majority of the differences between city types are at <.01.

Table 4.35. Comparison of Spread Cities to Other Type Cities Within National League of Cities' Typology on Demographics (Significant differences based on *t*-test comparisons)

Variable	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	*N* [a]
Population		**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Density	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**		**<.01**	**<.01**			936
Median Income	**<.01**		**<.01**	**<.01**	**<.01**	**<.01**	936
Home Ownership	**<.01**	**<.01**	**<.01**	**<.01**		**<.01**	936
Bachelor's Degree or Higher	**<.01**		**<.01**	**<.01**		*<.05*	936
Children	*<.05*	**<.01**	**<.01**	**<.01**			936
Elderly		**<.01**	**<.01**	**<.01**		**<.01**	936
Non-White		**<.01**	**<.01**			**<.01**	936
Black	**<.01**	**<.01**		**<.01**		**<.01**	935
Hispanic	*<.05*	**<.01**	**<.01**	**<.01**		**<.01**	936
N	185	80	125	76	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.36 contains the results of testing for Spread cities and all other type cities on the fiscal outputs. Again, Spread cities are most like Centervilles, having significant differences only on two of the financial outputs: the amount of expenditures on police and revenue from property tax. The Spread cities are least like Metro centers in terms of fiscal outputs. The two city types differ on all fiscal outputs except revenue from sales tax.

Table 4.36. Comparison of Spread Cities to Other Type Cities Within National League of Cities' Typology on Fiscal Outputs (Significant differences based on *t*-test comparisons)

Variable	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	*N* [a]
EXPENDITURES:							
Total	*<.05*	**<.01**	**<.01**	**<.01**		**<.01**	936
Common Functions		**<.01**	**<.01**			**<.01**	935
Police	**<.01**	**<.01**	*<.05*		**<.01**	**<.01**	934
Education		**<.01**	**<.01**	*<.05*			123
REVENUE:							
Total	*<.05*	**<.01**	**<.01**	**<.01**		**<.01**	936
Property Tax	*<.05*	*<.05*	**<.01**	**<.01**	**<.01**	**<.01**	930
Sales Tax	*<.05*					*<.05*	812
Income Tax[b]	**<.01**	*<.05*	---				103
Intergovernmental	**<.01**	**<.01**		**<.01**		*<.05*	934
Percentage Intergovernmental	**<.01**	**<.01**		**<.01**			933
DEBT:							
Total		**<.01**				**<.01**	925
Total Full Faith & Credit		**<.01**				**<.01**	770
N	185	80	125	76	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data. [a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Meltingpot cities reported any values for income tax.

Table 4.37 contains the results of comparisons involving Gold coast cities. It shows that the most differences are between Gold coast and Meltingpot cities, which differ on all of the demographic variables. The type cities that are most similar to Gold coast cities are Spread cities and Centervilles, but these types nevertheless differ from Gold coast cities on eight of the variables. Spread cities have significant differences in all areas other than population and percentages of elderly and non-White. Centervilles differ in all factors except percentages of elderly, non-White, and Hispanic.

Table 4.37. Comparison of Gold Coast Cities to Other Type Cities Within National League of Cities' Typology on Demographics (Significant differences based on *t*-test comparisons)

Variable	Spread cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	N^a
Population		**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Density	**<.01**		**<.01**	**<.01**	**<.01**		936
Growth Rate for 1980-2000[b]	**<.01**		**<.01**	**<.01**	**<.01**		936
Median Income	**<.01**	**<.01**	**<.01**	*<.05*	**<.01**	**<.01**	936
Home Ownership	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Bachelor's Degree or Higher	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Children	*<.05*	**<.01**	**<.01**	**<.01**	**<.01**	*<.05*	936
Elderly		**<.01**	**<.01**	**<.01**		**<.01**	936
Non-White		**<.01**	**<.01**			**<.01**	936
Black	**<.01**	**<.01**	**<.01**		**<.01**	**<.01**	935
Hispanic	*<.05*	**<.01**	**<.01**	*<.05*		**<.01**	936
N	372	80	125	76	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

In terms of fiscal outputs, Gold coast cities are most similar to Centervilles, as shown in Table 4.38. These two type cities only differ in terms of expenditures on police and revenues from property tax.

Table 4.38. Comparison of Gold Coast Cities to Other Type Cities
Within National League of Cities' Typology on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Spread cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	N^a
EXPENDITURES:							
Total	*<.05*	**<.01**	*<.05*			**<.01**	936
Common Functions		**<.01**	**<.01**			**<.01**	935
Police	**<.01**	**<.01**		**<.01**	**<.01**	**<.01**	934
Education			*<.05*	**<.01**			123
REVENUE:							
Total	*<.05*	**<.01**	*<.05*			**<.01**	936
Property Tax	*<.05*		**<.01**	**<.01**	**<.01**		930
Sales Tax	*<.05*		*<.05*				812
Income Tax[b]	**<.01**		---				103
Intergovernmental	**<.01**	**<.01**		*<.05*		**<.01**	934
Percentage Intergovernmental	**<.01**	**<.01**	**<.01**	**<.01**		*<.05*	933
DEBT:							
Total		**<.01**				**<.01**	925
Total Full Faith & Credit		*<.05*				**<.01**	770
N	372	80	125	76	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Meltingpot cities reported any values for income tax.

Spread cities, Metro centers, and Mega-metro centers, at eight each, have the most statistical differences with Gold coast cities. Spread cities differ in terms of expenditures on common functions and education and on both measures of debt. Both Metro and Mega-metro centers differ in education spending, and in revenues from property, sales, and income taxes.

Table 4.39 shows the results of testing for Metro centers on demographic factors. As can be seen, they are most like Mega-metro centers, differing only in terms of population, median income, educational level, and percent non-White. The Metro centers differ more from all other types of cities with Spread cities having the next lowest number of statistical differences at eight.

Table 4.39. Comparison of Metro Centers to Other Type Cities Within National League of Cities' Typology on Demographics (Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	*N* [a]
Population	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Density	**<.01**		**<.01**	**<.01**	**<.01**		936
Growth Rate for 1980-2000[b]			**<.01**	**<.01**			936
Median Income		**<.01**	**<.01**	**<.01**	*<.05*	*<.05*	936
Home Ownership	**<.01**	**<.01**		**<.01**	**<.01**		936
Bachelor's Degree or Higher		**<.01**	**<.01**	**<.01**		*<.05*	936
Children	**<.01**	**<.01**	**<.01**	**<.01**	*<.05*		936
Elderly	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**		936
Non-White	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	*<.05*	936
Black	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**		935
Hispanic	**<.01**	**<.01**	**<.01**		*<.05*		936
N	372	185	125	76	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.40 sets out the results of fiscal output comparisons for Metro centers. Once again, they are most like Mega-metro centers, but they differ in terms of all the expenditure measures and total debt. They differ from all other types on eight or more outputs.

Table 4.40. Comparison of Metro Centers to Other Type Cities
Within National League of Cities' Typology on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers	*N* [a]
EXPENDITURES:							
Total	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	*<.05*	936
Common Functions	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	935
Police	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	*<.05*	934
Education	**<.01**			**<.01**		*<.05*	123
REVENUE:							
Total	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**		936
Property Tax	*<.05*		**<.01**	**<.01**	**<.01**		930
Sales Tax							812
Income Tax[b]	*<.05*		---				103
Intergovernmental	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**		934
Percentage Intergovernmental	**<.01**	**<.01**	*<.05*	**<.01**	**<.01**		933
DEBT:							
Total	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	925
Total Full Faith & Credit	**<.01**	*<.05*	**<.01**	**<.01**	**<.01**		770
N	372	185	125	76	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data. [a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Meltingpot cities reported any values for income tax.

Table 4.41 shows comparisons of demographic variables for Meltingpot cities. They differ from all other type cities on at least eight factors, and differ from Gold coast cities on all of them.

Table 4.41. Comparison of Meltingpot Cities to Other Type Cities
Within National League of Cities' Typology on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Metro centers	Boom-towns	Center-villes	Mega-metro centers	*N* [a]
Population	**<.01**	**<.01**	**<.01**		**<.01**	**<.01**	936
Density	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**		936
Growth Rate for 1980-2000[b]	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Median Income	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**		936
Home Ownership	**<.01**	**<.01**		**<.01**	**<.01**		936
Bachelor's Degree or Higher	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Children	**<.01**	**<.01**	**<.01**		**<.01**	**<.01**	936
Elderly	**<.01**	**<.01**	**<.01**		**<.01**	**<.01**	936
Non-White	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Black		**<.01**	**<.01**	**<.01**		**<.01**	935
Hispanic	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
N	372	185	80	76	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

In terms of fiscal outputs Table 4.42 shows that Meltingpot cities are most different from Metro and Mega-metro centers. They differ from the first on all outputs except education spending and sales tax revenue. They differ from the latter in all areas other than revenue from sales taxes and percentage of intergovernmental revenues. Because no Meltingpot cities reported any revenue from income tax, no comparisons can be calculated for this area.

Table 4.42. Comparison of Meltingpot Cities to Other Type Cities
Within National League of Cities' Typology on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Metro centers	Boom-towns	Center-villes	Mega-metro centers	*N* [a]
EXPENDITURES:							
Total	**<.01**	*<.05*	**<.01**		*<.05*	**<.01**	936
Common Functions	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	935
Police	*<.05*		**<.01**	*<.05*	**<.01**	**<.01**	934
Education	**<.01**	*<.05*		**<.01**	*<.05*	*<.05*	123
REVENUE:							
Total	**<.01**	*<.05*	**<.01**		*<.05*	**<.01**	936
Property Tax	**<.01**	**<.01**	**<.01**			**<.01**	930
Sales Tax		*<.05*					812
Income Tax[b]	---	---	---	---	---	---	103
Intergovernmental			**<.01**	**<.01**		**<.01**	934
Percentage Intergovernmental		**<.01**	*<.05*	**<.01**			933
DEBT:							
Total			**<.01**	*<.05*		**<.01**	925
Total Full Faith & Credit			**<.01**			**<.01**	770
N	372	185	80	76	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Meltingpot cities reported any values for income tax.

As shown in Table 4.43, Boomtowns differ from all other city types on eight or more demographic variables. They are most like Meltingpots in that they do not differ on the variables of population, children, and elderly.

Table 4.43. Comparison of Boomtowns to Other Type Cities Within National League of Cities' Typology on Demographics (Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Center-villes	Mega-metro centers	*N* [a]
Population	**<.01**	**<.01**	**<.01**		**<.01**	**<.01**	936
Density	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Median Income	**<.01**	*<.05*	**<.01**	**<.01**	**<.01**	**<.01**	936
Home Ownership	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Bachelor's Degree or Higher	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**		936
Children	**<.01**	**<.01**	**<.01**		**<.01**	**<.01**	936
Elderly	**<.01**	**<.01**	**<.01**		**<.01**	**<.01**	936
Non-White			**<.01**	**<.01**		**<.01**	936
Black	**<.01**		**<.01**	**<.01**	*<.05*	**<.01**	935
Hispanic	**<.01**	*<.05*		**<.01**		*<.05*	936
N	372	185	80	125	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

The testing of fiscal outputs for Boomtowns is shown in Table 4.44. Boomtowns are most like Centervilles, differing only in total expenditures, intergovernmental revenues and percentage of intergovernmental revenues. They are least like Metro centers, with which they differ in all areas except sales and income taxes. They also differ from Mega-metro centers on all outputs other than education spending and sales and income taxes.

Table 4.44. Comparison of Boomtowns to Other Type Cities
Within National League of Cities' Typology on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Center-villes	Mega-metro centers	N^a
EXPENDITURES:							
Total	**<.01**		**<.01**		*<.05*	**<.01**	936
Common Functions			**<.01**	**<.01**		**<.01**	935
Police		**<.01**	**<.01**	*<.05*		**<.01**	934
Education	*<.05*	**<.01**	**<.01**	**<.01**			123
REVENUE:							
Total	**<.01**		**<.01**			**<.01**	936
Property Tax	**<.01**	**<.01**	**<.01**			**<.01**	930
Sales Tax							812
Income Tax[b]				---			103
Intergovernmental	**<.01**	*<.05*	**<.01**	**<.01**	**<.01**	**<.01**	934
Percentage Intergovernmental	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	933
DEBT:							
Total			**<.01**	*<.05*		**<.01**	925
Total Full Faith & Credit			**<.01**			**<.01**	770
N	372	185	80	125	68	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Meltingpot cities reported any values for income tax.

Table 4.45 shows that Centervilles are most like Spread cities in terms of demographic factors. They differ only in terms of population, density, and income levels.

Meltingpot cities are the most different from Centervilles, differing on all factors except percent Black.

Table 4.45. Comparison of Centervilles to Other Type Cities Within National League of Cities' Typology on Demographics (Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Mega-metro centers	*N* [a]
Population	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Density	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]		**<.01**		**<.01**	**<.01**		936
Median Income	**<.01**	**<.01**	*<.05*	**<.01**	**<.01**	**<.01**	936
Home Ownership		**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Bachelor's Degree or Higher		**<.01**		**<.01**	**<.01**	**<.01**	936
Children		**<.01**	*<.05*	**<.01**	**<.01**		936
Elderly			**<.01**	**<.01**	**<.01**	**<.01**	936
Non-White			**<.01**	**<.01**		**<.01**	936
Black		**<.01**	**<.01**		*<.05*	**<.01**	935
Hispanic			*<.05*	**<.01**		**<.01**	936
N	372	185	80	125	76	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

The fiscal output comparisons for Centervilles are shown in Table 4.46. They are most similar to Spread and Gold coast cities, differing only in police expenditures and property tax revenues. They differ from Boomtowns on total expenditures and the two intergovernmental revenue variables. They are most unlike the Metro centers, showing statistical differences on all outputs other than education spending and sales and income taxes. They also have these three differences with Mega-metro centers, plus percentage of intergovernmental revenues.

Table 4.46. Comparison of Centervilles to Other Type Cities
Within National League of Cities' Typology on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Mega-metro centers	*N* [a]
EXPENDITURES:							
Total			**<.01**	*<.05*	*<.05*	**<.01**	936
Common Functions			**<.01**	**<.01**		**<.01**	935
Police	**<.01**	**<.01**	**<.01**	**<.01**		**<.01**	934
Education				*<.05*			123
REVENUE:							
Total			**<.01**	*<.05*		**<.01**	936
Property Tax	**<.01**	**<.01**	**<.01**			**<.01**	930
Sales Tax							812
Income Tax[b]				---			103
Intergovernmental			**<.01**		**<.01**	**<.01**	934
Percentage Intergovernmental			**<.01**		**<.01**		933
DEBT:							
Total			**<.01**			**<.01**	925
Total Full Faith & Credit			**<.01**			**<.01**	770
N	372	185	80	125	76	30	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data. [a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Meltingpot cities reported any values for income tax.

As previously noted, Mega-metro centers are most similar to Metro centers. Mega-metro centers are most different from Boomtowns, with which they differ in all demographic areas except educational level.

Table 4.47. Comparison of Mega-Metro Centers to Other Type Cities Within National League of Cities' Typology on Demographics (Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	N^{a}
Population	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	936
Density	**<.01**				**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]				**<.01**	**<.01**		936
Median Income	**<.01**	**<.01**	*<.05*		**<.01**	**<.01**	936
Home Ownership	**<.01**	**<.01**			**<.01**	**<.01**	936
Bachelor's Degree or Higher	*<.05*	**<.01**	*<.05*	**<.01**		**<.01**	936
Children		*<.05*		**<.01**	**<.01**		936
Elderly	**<.01**	**<.01**		**<.01**	**<.01**	**<.01**	936
Non-White	**<.01**	**<.01**	*<.05*	**<.01**	**<.01**	**<.01**	936
Black	**<.01**	**<.01**		**<.01**	**<.01**	**<.01**	935
Hispanic	**<.01**	**<.01**		**<.01**	*<.05*	**<.01**	936
N	372	185	80	125	76	68	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.48 shows Mega-metro centers differ least with Metro centers on fiscal outputs. They differ from Spread and Meltingpot cities on nine financial variables. Spread cities differ on all fiscal outputs except education spending, income tax, and percentage intergovernmental revenue. Meltingpot cities differ on all except percent intergovernmental revenues and sales taxes.

Table 4.48. Comparison of Mega-Metro Centers to Other Type Cities
Within National League of Cities' Typology on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	*N* [a]
EXPENDITURES:							
Total	**<.01**	**<.01**	*<.05*	**<.01**	**<.01**	**<.01**	936
Common Functions	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	935
Police	**<.01**	**<.01**	*<.05*	**<.01**	**<.01**	**<.01**	934
Education			*<.05*	*<.05*			123
REVENUE:							
Total	**<.01**	**<.01**		**<.01**	**<.01**	**<.01**	936
Property Tax	**<.01**			**<.01**	**<.01**	**<.01**	930
Sales Tax	*<.05*						812
Income Tax[b]				---			103
Intergovernmental	*<.05*	**<.01**		**<.01**	**<.01**	**<.01**	934
Percentage Intergovernmental		*<.05*			**<.01**		933
DEBT:							
Total	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	**<.01**	925
Total Full Faith & Credit	**<.01**	**<.01**		**<.01**	**<.01**	**<.01**	770
N	372	185	80	125	76	68	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Meltingpot cities reported any values for income tax.

Comparisons were also made among the different regional classifications of the cities. Table 4.49 shows cities in the Northeast are most like those in the South, but they have statistical differences in all demographic variables except population, income, children, and percent Hispanic. They differ from cities in the West in all areas except population and from those in the Midwest on all except population and percent Black.

Table 4.49. Comparison of Northeastern Cities to Cities in Other Regions on Demographics (Significant differences based on *t*-test comparisons)

Variable	Midwest	South	West	*N* [a]
Population				936
Density	**<.01**	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**	**<.01**	**<.01**	936
Median Income	**<.01**		**<.01**	936
Home Ownership	**<.01**	**<.01**	**<.01**	936
Bachelor's Degree or Higher	**<.01**	*<.05*	**<.01**	936
Children	*<.05*		**<.01**	936
Elderly	**<.01**	*<.05*	**<.01**	936
Non-White	**<.01**	**<.01**	**<.01**	936
Black		**<.01**	**<.01**	935
Hispanic	**<.01**		**<.01**	936
N	255	263	294	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.
[a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.50 illustrates the statistical differences between cities in the Northeast and other regions in terms of fiscal outputs. It shows that Northeastern cities differ most with those in the South, lacking statistical significance only on police spending and total debt.

Northeastern cities also have statistical differences from cities in the Midwest on all areas except spending on common functions and education and their total amount of debt. They differ from those in the West on all outputs other than expenditures on common functions and police and their total debt.

Table 4.50. Comparison of Northeastern Cities to
Cities in Other Regions on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Midwest	South	West	*N* [a]
EXPENDITURES:				
Total	**<.01**	**<.01**	**<.01**	936
Common Functions		*<.05*		935
Police	*<.05*			934
Education		**<.01**	*<.05*	123
REVENUE:				
Total	**<.01**	**<.01**	**<.01**	936
Property Tax	**<.01**	**<.01**	**<.01**	930
Sales Tax	**<.01**	**<.01**	**<.01**	812
Income Tax[b]	**<.01**	*<.05*	---	103
Intergovernmental	**<.01**	**<.01**	**<.01**	934
Percentage Intergovernmental	**<.01**	**<.01**	**<.01**	933
DEBT:				
Total				925
Total Full Faith & Credit	**<.01**	**<.01**	**<.01**	770
N	255	263	294	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Western cities reported any values for income tax.

Table 4.51 shows cities in the Midwest are most like those in the South. The two regions do not have statistical differences on four variables: population, education, children, or elderly. There are significant differences with the Northeast on all except population and percent Black, and with the West on all except population and educational level.

Table 4.51. Comparison of Midwestern Cities to Cities in Other Regions on Demographics (Significant differences based on *t*-test comparisons)

Variable	Northeast	South	West	*N* [a]
Population				936
Density	**<.01**	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**	**<.01**	**<.01**	936
Median Income	**<.01**	**<.01**	**<.01**	936
Home Ownership	**<.01**	**<.01**	**<.01**	936
Bachelor's Degree or Higher	**<.01**			936
Children	*<.05*		**<.01**	936
Elderly	**<.01**		**<.01**	936
Non-White	**<.01**	**<.01**	**<.01**	936
Black		**<.01**	**<.01**	935
Hispanic	**<.01**	**<.01**	**<.01**	936
N	124	263	294	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

[a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.52 shows the fiscal outputs of cities in the Midwest differ from those in the Northeast in all financial categories other than expenditures on common functions and education and level of total debt. They are more similar to cities in the South and West, but still differ from each of these regions on half of the fiscal output measures.

Table 4.52. Comparison of Midwestern Cities to Cities in Other Regions on Fiscal Outputs (Significant differences based on *t*-test comparisons)

Variable	Northeast	South	West	*N* [a]
EXPENDITURES:				
Total	**<.01**	**<.01**		936
Common Functions				935
Police	*<.05*	*<.05*	**<.01**	934
Education				123
REVENUE:				
Total	**<.01**	**<.01**	*<.05*	936
Property Tax	**<.01**		**<.01**	930
Sales Tax	**<.01**	**<.01**	**<.01**	812
Income Tax[b]	**<.01**		---	103
Intergovernmental	**<.01**		**<.01**	934
Percentage Intergovernmental	**<.01**	**<.01**	**<.01**	933
DEBT:				
Total		**<.01**		925
Total Full Faith & Credit	**<.01**			770
N	124	263	294	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Western cities reported any values for income tax.

As shown in Table 4.53, Southern cities have about the same amount of statistical differences with each of the other regions on the demographic variables. They differ from those in the West on eight and those in the Northeast and Midwest on seven.

Table 4.53. Comparison of Southern Cities to
Cities in Other Regions on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Northeast	Midwest	West	*N* [a]
Population				936
Density	**<.01**	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**	**<.01**	*<.05*	936
Median Income		**<.01**	**<.01**	936
Home Ownership	**<.01**	**<.01**		936
Bachelor's Degree or Higher	*<.05*			936
Children			**<.01**	936
Elderly	*<.05*		**<.01**	936
Non-White	**<.01**	**<.01**	*<.05*	936
Black	**<.01**	**<.01**	**<.01**	935
Hispanic		**<.01**	**<.01**	936
N	124	255	294	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.
[a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

The fiscal outputs of Southern cities differ statistically with Northeastern cities more than any other region. (See Table 4.54.) They differ on all outputs except police spending and total debt. The South differs from the Midwest and West on six of the fiscal variables. The South does not differ with either in spending on common functions and education and full faith and credit debt. It also does not differ with the Midwest on property and income taxes and intergovernmental revenues, or with the West on police spending and percent intergovernmental revenue.

Table 4.54. Comparison of Southern Cities to
Cities in Other Regions on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Northeast	Midwest	West	*N* [a]
EXPENDITURES:				
Total	**<.01**	**<.01**	**<.01**	936
Common Functions	*<.05*			935
Police		*<.05*		934
Education	**<.01**			123
REVENUE:				
Total	**<.01**	**<.01**	**<.01**	936
Property Tax	**<.01**		**<.01**	930
Sales Tax	**<.01**	**<.01**	**<.01**	812
Income Tax[b]	*<.05*		---	103
Intergovernmental	**<.01**		**<.01**	934
Percentage Intergovernmental	**<.01**	**<.01**		933
DEBT:				
Total		**<.01**	*<.05*	925
Total Full Faith & Credit	**<.01**			770
N	124	255	294	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Western cities reported any values for income tax.

Table 4.55 shows that cities in the West have statistically significant differences with the other regions' cities on most all the demographic variable except population. That is the only area in which it does not differ from the Northeast. In the Midwest, it differs on all except population and education. All of the differences between the West and the Northeast and Midwest are statistically significant at a level of <.01. The West differs from the South in terms of all factors except, population, home ownership and education.

Table 4.55. Comparison of Western Cities to
Cities in Other Regions on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Northeast	Midwest	South	*N* [a]
Population				936
Density	**<.01**	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**	**<.01**	*<.05*	936
Median Income	**<.01**	**<.01**	**<.01**	936
Home Ownership	**<.01**	**<.01**		936
Bachelor's Degree or Higher	**<.01**			936
Children	**<.01**	**<.01**	**<.01**	936
Elderly	**<.01**	**<.01**	**<.01**	936
Non-White	**<.01**	**<.01**	*<.05*	936
Black	**<.01**	**<.01**	**<.01**	935
Hispanic	**<.01**	**<.01**	**<.01**	936
N	124	255	263	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000.

[a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

The West differs less with the other regions in fiscal outputs than demographics, as shown in Table 4.56. The most statistical differences are with the Northeast, where it differs in all outputs except spending on common functions and police and total debt. There were no comparisons on income tax for the West.

Table 4.56. Comparison of Western Cities to
Cities in Other Regions on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Northeast	Midwest	South	*N* [a]
EXPENDITURES:				
Total	**<.01**		**<.01**	936
Common Functions				935
Police		**<.01**		934
Education	*<.05*			123
REVENUE:				
Total	**<.01**	*<.05*	**<.01**	936
Property Tax	**<.01**	**<.01**	**<.01**	930
Sales Tax	**<.01**	**<.01**	**<.01**	812
Income Tax[b]	---	---	---	103
Intergovernmental	**<.01**	**<.01**	**<.01**	934
Percentage Intergovernmental	**<.01**	**<.01**		933
DEBT:				
Total			*<.05*	925
Total Full Faith & Credit	**<.01**			770
N	124	255	263	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]*N* values for dependent variables represent the number of cities reporting a value for that variable. [b]No Western cities reported any values for income tax.

The study also compares the means of cities on demographic and financial variables based on their form of government. Table 4.57 shows that mayor cities differ from those with managers in all areas except density. There are no statistically significant demographic differences between mayor and commissioner cities.

Table 4.57. Comparison of Mayor Cities to
Manager and Commissioner Cities on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Manager	Commissioner	*N* [a]
Population	*<.05*		936
Density			936
Growth Rate for 1980-2000[b]	**<.01**		936
Median Income	**<.01**		936
Home Ownership	**<.01**		936
Bachelor's Degree or Higher	**<.01**		936
Children	*<.05*		936
Elderly	**<.01**		936
Non-White	**<.01**		936
Black	**<.01**		935
Hispanic	**<.01**		936
N	615	13	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. [a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.58 shows that mayor cities have significant differences with manager cities on all fiscal outputs except spending on common functions and police, income tax revenues, and total debt. There are no statistically significant differences in fiscal characteristics between mayor and commission cities.

Table 4.58. Comparison of Mayor Cities to
Manager and Commissioner Cities on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Manager	Commissioner	*N* [a]
EXPENDITURES:			
Total	**<.01**		936
Common Functions			935
Police			934
Education	*<.05*		123
REVENUE:			
Total	**<.01**		936
Property Tax	**<.01**		930
Sales Tax	**<.01**		812
Income Tax			103
Intergovernmental	**<.01**		934
Percentage Intergovernmental	**<.01**		933
DEBT:			
Total			925
Total Full Faith & Credit	**<.01**		770
N	615	13	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable.

Table 4.59 reports the differences manager cities have with the other forms of government. In addition to the comparison with mayor cities already discussed, they differ statistically from commissioner cities only on median income and percent children.

Table 4.59. Comparison of Manager Cities to
Mayor and Commissioner Cities on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Mayor	Commissioner	*N* [a]
Population	*<.05*		936
Density			936
Growth Rate for 1980-2000[b]	**<.01**		936
Median Income	**<.01**	**<.01**	936
Home Ownership	**<.01**		936
Bachelor's Degree or Higher	**<.01**		936
Children	*<.05*	**<.01**	936
Elderly	**<.01**		936
Non-White	**<.01**		936
Black	**<.01**		935
Hispanic	**<.01**		936
N	308	13	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. [a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Manager cities and commission cities have no statistically significant differences in terms of the fiscal outputs. (See Table 4.60) All differences between manager and mayor cities have already been noted.

Table 4.60. Comparison of Manager Cities to
Mayor and Commissioner Cities on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Mayor	Commissioner	*N* [a]
EXPENDITURES:			
Total	**<.01**		936
Common Functions			935
Police			934
Education	*<.05*		123
REVENUE:			
Total	**<.01**		936
Property Tax	**<.01**		930
Sales Tax	**<.01**		812
Income Tax			103
Intergovernmental	**<.01**		934
Percentage Intergovernmental	**<.01**		933
DEBT:			
Total			925
Total Full Faith & Credit	**<.01**		770
N	308	13	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable.

Because of the lack of differences between the mayor and commission cities, analyses were run with these categories combined. When manager cities were compared to all non-manager cities demographic results were the same as when manager cities were compared to mayor cities alone. The inclusion of commissioner cities did not change either the areas of statistical differences or the levels of significance. Comparison between fiscal outputs for manager to non-manager cities resulted in the same differences as with manager and mayor, with the addition of a statistical difference in expenditures on common functions at the level of <.05.

Cities are also compared on the basis of metro status. Table 4.61 shows that central cities and suburbs differ at a level of <.01 for all demographic factors except percent non-White. Central and independent cities differ on all except the rates of growth, levels of education, and percentage of children. The differences with independent cities are also at <.01, except for the variables home ownership, elderly, and Hispanic that are at <.05.

Table 4.61. Comparison of Central Cities to
Suburbs and Independent Cities on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Suburb	Independent	*N* [a]
Population	**<.01**	**<.01**	936
Density	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**		936
Median Income	**<.01**	**<.01**	936
Home Ownership	**<.01**	*<.05*	936
Bachelor's Degree or Higher	**<.01**		936
Children	**<.01**		936
Elderly	**<.01**	*<.05*	936
Non-White		**<.01**	936
Black	**<.01**	**<.01**	935
Hispanic	**<.01**	*<.05*	936
N	412	74	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.

[a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.62 shows central cities and suburbs differ statistically on education spending and revenue from sales and income taxes. Independent cities differ only on police spending, property tax, intergovernmental revenue, and full faith in credit debt.

Table 4.62. Comparison of Central Cities to Suburbs and Independent Cities on Fiscal Outputs (Significant differences based on *t*-test comparisons)

Variable	Suburb	Independent	*N* [a]
EXPENDITURES:			
Total	**<.01**		936
Common Functions	**<.01**		935
Police	*<.05*	**<.01**	934
Education			123
REVENUE:			
Total	**<.01**		936
Property Tax	*<.05*	**<.01**	930
Sales Tax			812
Income Tax			103
Intergovernmental	**<.01**	**<.01**	934
Percentage Intergovernmental	**<.01**		933
DEBT:			
Total	**<.01**		925
Total Full Faith & Credit	**<.01**	**<.01**	770
N	412	74	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable.

Table 4.63 reports the results of demographic comparisons of suburbs to both central and independent cities. The results concerning central cities and suburbs have already been discussed. The table provides additional findings showing suburbs and independent cities differ statistically on all demographic variables (at <.01), with the exception of the percentage Black.

Table 4.63. Comparison of Suburbs to
Central and Independent Cities on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Central	Independent	*N* [a]
Population	**<.01**	**<.01**	936
Density	**<.01**	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**	**<.01**	936
Median Income	**<.01**	**<.01**	936
Home Ownership	**<.01**	**<.01**	936
Bachelor's Degree or Higher	**<.01**	**<.01**	936
Children	**<.01**	**<.01**	936
Elderly	**<.01**	**<.01**	936
Non-White		**<.01**	936
Black	**<.01**		935
Hispanic	**<.01**	**<.01**	936
N	450	74	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.
[a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.64 shows differences between suburbs and central and independent cities on fiscal outputs. Central cities have already been discussed. Independent cities differ on total, police, and education spending, as well as total and property tax revenues.

Table 4.64. Comparison of Suburbs to
Central and Independent Cities on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Central	Independent	*N* [a]
EXPENDITURES:			
Total	**<.01**	**<.01**	936
Common Functions	**<.01**	**<.01**	935
Police	*<.05*	**<.01**	934
Education			123
REVENUE:			
Total	**<.01**	**<.01**	936
Property Tax	*<.05*	*<.05*	930
Sales Tax			812
Income Tax			103
Intergovernmental	**<.01**		934
Percentage Intergovernmental	**<.01**		933
DEBT:			
Total	**<.01**		925
Total Full Faith & Credit	**<.01**		770
N	450	74	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable.

Table 4.65 contains the results of comparison between the demographic variables for suburbs and non-suburb, differing only on percent non-White. The findings are the same as those between central cities and suburbs. The combination of independent cities and central cities as non-suburbs failed to change either the statistical differences or the level of significance found when suburbs and central cities were compared alone.

Table 4.65. Comparison of Suburbs to
Non-Suburbs on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Non-Suburb	*N* [a]
Population	**<.01**	936
Density	**<.01**	936
Growth Rate for 1980-2000[b]	**<.01**	936
Median Income	**<.01**	936
Home Ownership	**<.01**	936
Bachelor's Degree or Higher	**<.01**	936
Children	**<.01**	936
Elderly	**<.01**	936
Non-White		936
Black	**<.01**	935
Hispanic	**<.01**	936
N	524	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003.
[a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.66 shows suburbs compared to non-suburbs on fiscal outputs. The category non-suburbs differs from suburbs much like central cities alone, except differences on police spending and property taxes at <.05 are no longer significant.

Table 4.66. Comparison of Suburbs to
Non-Suburbs on Fiscal Outputs
(Significant differences based on *t*-test comparisons)

Variable	Non-Suburb	*N* [a]
EXPENDITURES:		
Total	**<.01**	936
Common Functions	**<.01**	935
Police		934
Education		123
REVENUE:		
Total	**<.01**	936
Property Tax		930
Sales Tax		812
Income Tax		103
Intergovernmental	**<.01**	934
Percentage Intergovernmental	**<.01**	933
DEBT:		
Total	**<.01**	925
Total Full Faith & Credit	**<.01**	770
N	524	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a] *N* values for dependent variables represent the number of cities reporting a value for that variable.

Table 4.67 reports results from demographic comparisons based on principal city status. Cities that are principal cities differ from those that are not on just over half the variables. They differ statistically at the level of <.01 for the variables of population, density, income, percent of home ownership, children, and Blacks. The remaining demographic variables were not statistically different between the two type cities.

Table 4.67. Comparison of Principal Cities to
Non-Principal Cities on Demographics
(Significant differences based on *t*-test comparisons)

Variable	Non-Prinicpal	*N* [a]
Population	**<.01**	936
Density	**<.01**	936
Growth Rate for 1980-2000[b]		936
Median Income	**<.01**	936
Home Ownership	**<.01**	936
Bachelor's Degree or Higher		936
Children	**<.01**	936
Elderly		936
Non-White		936
Black	**<.01**	935
Hispanic		936
N	443	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004.
[a]*N* values for dependent variables represent number of cities reporting. [b]Data Source for Growth Rate: U.S. Bureau of the Census, 1980 and 2000 Decennial Censuses, Washington, DC: U.S. Department of Commerce, 1980 and 2000. All other demographic data are from the 2000 Decennial Census.

Table 4.68 shows principal cities differ from non-principal cities (at <.01) for all fiscal outputs variables except for education spending, property and income taxes, percent intergovernmental revenues, and full faith and credit debt.

Table 4.68. Comparison of Principal Cities to Non-Principal Cities on Fiscal Outputs (Significant differences based on *t*-test comparisons)

Variable	Non-Prinicpal	*N* [a]
EXPENDITURES:		
Total	**<.01**	936
Common Functions	**<.01**	935
Police	**<.01**	934
Education		123
REVENUE:		
Total	**<.01**	936
Property Tax		930
Sales Tax	**<.01**	812
Income Tax		103
Intergovernmental	**<.01**	934
Percentage Intergovernmental		933
DEBT:		
Total	**<.01**	925
Total Full Faith & Credit		770
N	443	

Note. The figures indicate the level of significance, if any, with <.05 italicized in blue and <.01 bold in red. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]*N* values for dependent variables represent the number of cities reporting a value for that variable.

Summary of Student's *t*-test Analysis

The findings resulting from the *t*-test analysis show that many of the categories of cities within the various classification schemes differ substantially from the others, while yet other categories of cities differ much less. The tables pertaining to the NLC typology classification each have six columns for the results of whether the city being tested differs from the other six type cities in the typology. On the tables for demographic variables there is a row representing each of the 11 variables on which the cities are compared. Thus, each of these tables could potentially report 66 statistically significant differences. The financial tables have 12 rows and 72 possible statistical differences.

To summarize the findings a ratio of the number of significant differences shown on the table for each city to the number of potential differences for that table was calculated and transformed into a percentage. The percentage figure is used to measure the percent of possible differentiation a city has to all other cities in its category in the classification scheme. It is recognized that any difference between two cities shows up twice within all the tables for each categorization scheme, since there is a table to reflect the difference for each of the two cities being compared. However, this is the same for all the categories being analyzed and does not alter the percentage of differences being reported for each city type. These percentages are reported for each type city utilized by the different classification schemes on both demographic and financial variables.

Table 4.69 sets out the percentages, on both demographic and fiscal variables, for each type city within the NLC, regional, form of government, metro status, and principal city status classifications. The cities within the NLC typology have average ranging from

73% to 86% among the demographic variables and from 40% to 72% for the financial variables. The values average to 78% and 57% respectively. The regional classifications range from 67% to 82% and average 76% for demographic variables. Fiscal variables ranges are from 56% to 75% with an average of 63%. The categories of form of government are much lower averaging 36% for demographic variables (range from 9% to 55 %) and 22% for financial variables (range from 0% to 33%) with the commissioner form of government pulling these numbers down. The metro status groupings for demographics range from 82% to 91% for an average of 85% while the financial variable averages range between 38% and 58% for an average of 50%. Finally, the averages for the designations based on principal city status are 55% and 58% for demographic and financial variables respectively.

Table 4.69. Statistically Significant Differences of City Types
(Based on *t*-test comparisons)

City type	Demographic variables	Fiscal outputs
Spread	73%	58%
Gold coast	82%	53%
Metro center	76%	72%
Meltingpot	86%	58%
Boomtown	85%	54%
Centerville	73%	40%
Mega-metro center	74%	67%
Northeast	79%	75%
Midwest	76%	58%
South	67%	61%
West	82%	56%

City type	Demographic variables	Fiscal outputs
Mayor	45%	33%
Manager	55%	33%
Commissioner	9%	0%
Central	82%	54%
Suburb	91%	58%
Independent	82%	38%
Principal	55%	58%
Non-Principal	55%	58%

Note: Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan. Data Source for Region: 2000 Decennial Census. Washington, DC: U.S. Department of Commerce, 2000. Data Source for Form of Government and Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

These data show that metro status categories exhibit the highest percentages of statistical differences for demographic variables, but only around 50% for fiscal outputs. The regional descriptions have the highest average differences for fiscal outputs. However, the NLC typology cities have the second highest percentages for both types of variables. Form of government and principal city designations are low on both.

It appears that the typology, region, and metro status classification schemes provide methods to classify cities that result in similarly high levels of statistical differences on the variables analyzed. However, because the typology has seven separate groupings of cities with relatively high numbers of significant differences between the city categories for both demographic and fiscal variables, the findings provide further evidence to support the hypothesis that the NLC typology provides a better method of classification than the other categorizations.

The foregoing analysis shows the NLC typology appears to have practical utility in providing a better manner of city classification for purposes of financial research. In comparison to the other methods examined, the typology has a greater number of classification categories and lower variation within these categories. Overall there are statistically significant differences between the categories and the strengths of the relationships are high in terms of both demographic and fiscal variables. The NLC typology also has a comparatively large percentage of statistically significant differences between individual city types. The next chapter discusses the regression analysis performed to test this apparent utility by exploring the impact of these differences, with an emphasis on whether the NLC typology provides a better measure of fiscal behavior as hypothesized.

CHAPTER 5

MULTIPLE-REGRESSION ANALYSIS AND FINDINGS

The analysis discussed in the proceeding chapter shows the National League of Cities (NLC) typology provides a method of classifying cities with more categories and lower variation between the cities within each category than the traditional schemes used for relegation. The analysis now looks more specifically at the effects that different variables have on the fiscal behaviors of cities within the various classification schemes. It begins by examining the influence of the demographic variables on fiscal behavior and the impact of revenue sources on expenditure and debt outputs. The analysis concludes by comparing the overall effect of the independent variables on common function spending for different city types to test the utility of the classification methods.

Impact of Demographic Variables on Fiscal Outputs

Since there are statistically significant differences demographically between the different categories of the NLC typology, further examination of the effects of these demographic variations on fiscal behavior is warranted. To measure the relative impact of the different demographic factors, multiple-regression analysis is performed for each category of city type within the NLC typology, form of government, metropolitan (metro) status, and principal city classifications. A separate regression analysis is performed on each of the following fiscal output measures: total, common function, and police expenditures; total, property tax, sales tax, and intergovernmental revenues; and total and full faith and credit debt. The variables for education expenditure and income tax revenue are not used due to the low number of cases reported for each.

All demographic variables previously discussed are utilized in the regression analysis, except for educational level and percent non-White which are excluded because they are found to be too highly correlated to other explanatory variables. The variable percentage of intergovernmental revenue is included as an independent variable. To test the correlation between the independent variables, each of the variables was used as the dependent variable and regressed against the others in separate tests. After performing these procedures, no R^2 value greater than .640 was found in any of the individual regressions and it is concluded that multicollinearity is not a problem.

Results of the regression analysis are reported in tables that include a number of findings. The adjusted R^2 value represents the proportion of variation in the dependent variable that can be explained by the regression model. Because it takes into account the number of independent variables, it is more accurate than R^2. Thus, it provides a means of comparing different classification schemes' usefulness in financial analysis of cities. The tables also include unstandarized coefficient b values for each explanatory variable. These values depict the amount and direction of change in the dependent variable for each unit increase in an explanatory variable. The standardized coefficient Beta is used to measure the relative predictive power of independent variables in the regression model. It shows the amount that the dependent variable changes (in terms of standard deviation) for each standard deviation increase in the explanatory variable.

Total Expenditure for Different City Types

Table 5.1 shows the results of multiple-regression analysis on total expenditure for each of the categories within the NLC typology. Initially, it is noted that the adjusted R^2 values vary from a low of -.033 for Boomtowns to a high of .608 for Mega-metro centers. This indicates that the independent variables in the regression model do not explain variation in total spending for Boomtowns, but they do account for about 61% of the variation in total spending in Mega-metro centers. The second highest adjusted R^2 value (.518) is found with Metro Centers.

Table 5.1. Total Expenditure Regressed on Demographic Variables for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
SPREAD						.126
Population	.00	.00	.118	2.356	.019	
Density	-.14	.03	-.272	-5.123	.000	
Growth Rate	-.45	1.75	-.016	-.259	.796	
Median Income	.03	.01	.223	3.240	.001	
Home Ownership	-33.98	6.99	-.377	-4.858	.000	
Children	-9.17	15.63	-.040	-.587	.558	
Elderly	44.49	14.90	.179	2.986	.003	
Black	2.03	3.24	.039	.624	.533	
Hispanic	-2.53	6.24	-.024	-.405	.686	
Percentage Intergovernmental	768.12	377.89	.113	2.033	.043	
GOLD COAST						.233
Population	.00	.00	.073	1.033	.303	
Density	-.05	.03	-.117	-1.570	.118	
Growth Rate	-4.93	1.91	-.184	-2.583	.011	
Median Income	.01	.01	.096	1.256	.211	
Home Ownership	-24.93	7.79	-.332	-3.200	.002	
Children	-58.73	30.52	-.221	-1.924	.056	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Elderly	-4.26	18.76	-.024	-.227	.821	
Black	-4.03	8.40	-.033	-.479	.632	
Hispanic	-3.57	7.77	-.033	-.460	.646	
Percentage Intergovernmental	-1,204.78	750.99	-.113	-1.604	.110	
METRO CENTERS						.518
Population	.00	.00	-.020	-.224	.823	
Density	-.06	.06	-.141	-1.056	.295	
Growth Rate	-11.82	3.31	-.422	-3.576	.001	
Median Income	.07	.03	.404	2.666	.010	
Home Ownership	-.41.92	18.49	-.349	-2.267	.027	
Children	21.64	45.63	.054	.474	.637	
Elderly	-23.10	66.08	-.044	-.350	.728	
Black	6.24	6.98	.100	.894	.374	
Hispanic	-1.99	9.91	-.024	-.201	.842	
Percentage Intergovernmental	3,125.85	602.97	.515	5.184	.000	
MELTINGPOTS						.245
Population	.00	.00	-.012	-.152	.879	
Density	-.01	.02	-.079	-.611	.543	
Growth Rate	1.06	1.67	.060	.636	.526	
Median Income	-.02	.01	-.265	-1.749	.083	
Home Ownership	2.26	10.19	.033	.222	.825	
Children	-144.68	28.90	-.776	-5.006	.000	
Elderly	-72.51	38.21	-.228	-1.898	.060	
Black	3.44	6.66	.057	.516	.607	
Hispanic	8.22	6.39	.198	1.286	.201	
Percentage Intergovernmental	580.29	699.06	.087	.830	.408	
BOOMTOWNS						-.033
Population	-.00	.00	-.034	-.251	.803	
Density	-.06	.09	-.082	-.604	.548	
Growth Rate	-.09	.37	-.031	-.238	.812	
Median Income	.02	.01	.356	1.976	.052	
Home Ownership	-17.88	11.65	-.239	-1.534	.130	
Children	-6.68	38.45	-.034	-.174	.863	
Elderly	35.13	35.77	.216	.982	.330	
Black	-7.77	10.21	-.098	-.761	.449	
Hispanic	14.49	11.06	.209	1.310	.195	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Percentage Intergovernmental	505.10	972.50	.066	.519	.605	
CENTERVILLES						.209
Population	-.01	.02	-.099	-.750	.456	
Density	-.18	.11	-.211	-1.670	.100	
Growth Rate	-1.48	5.27	-.046	-.281	.780	
Median Income	.08	.02	.511	3.283	.002	
Home Ownership	-33.77	23.17	-.315	-1.458	.150	
Children	6.14	42.31	.027	.145	.885	
Elderly	25.22	44.30	.105	.569	.571	
Black	11.78	10.33	.182	1.140	.259	
Hispanic	-10.13	10.36	-.165	-.978	.332	
Percentage Intergovernmental	-1,004.29	841.02	-.140	-1.194	.237	
MEGA-METRO CENTERS						.608
Population	.00	.00	.405	1.404	.176	
Density	-.03	.19	-.079	-.179	.860	
Growth Rate	-4.23	12.02	-.060	-.352	.729	
Median Income	.04	.06	.138	.731	.474	
Home Ownership	57.71	63.44	.221	.910	.374	
Children	-598.61	183.72	-1.020	-3.258	.004	
Elderly	-18.36	232.66	-.017	-.079	.938	
Black	106.04	29.86	.916	3.551	.002	
Hispanic	66.59	29.02	.520	2.295	.033	
Percentage Intergovernmental	2,405.03	3,679.25	.159	.654	.521	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Spread cities show the greatest number of statistically significant regression coefficients, with 6 of the 10 variables being significant at the level of < .05. Of these, home ownership has the greatest relative impact with a Beta of -.377. This is followed by density (-.272) and median income (.223). None of the regression coefficients for Boomtowns is found to be statistically significant. Metro centers and Mega-metro centers have adjusted R^2 values of just over 50% and 60% respectively. In Metro centers, percent intergovernmental revenue, growth rate, median income, and home ownership are all found to have relatively high predictive power. For Mega-metro centers, the percentages of children and Blacks are the strongest predictors followed by Hispanics. Overall, within the NLC typology categories, each of the demographic variables are found to be significant in at least one of the categories, with median income and home ownership showing statistical significant in three of the city types.

Table 5.2 sets out the findings of regression analysis on total expenditure based on form of government. The regressions have an adjusted R^2 of .195 for manager cities and .275 for non-manager cities. Population, median income, home ownership, and percent Black are statistically significant for each category, with all but homeownership in a positive relationship with total expenditure. Density is significant only for manager cities, and percent intergovernmental revenue is significant only for non-manager cities. Home ownership is the strongest predictor in each type city.

Table 5.2. Total Expenditure Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.195
Population	.00	.00	.113	3.009	.003	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Density	-.05	.02	-.157	-3.181	.002	
Growth Rate	.12	.34	.014	.348	.728	
Median Income	.01	.00	.170	3.217	.001	
Home Ownership	-28.80	4.70	-.386	-6.124	.000	
Children	-22.42	11.78	-.117	-1.903	.057	
Elderly	17.31	9.91	.087	1.747	.081	
Black	9.19	2.98	.133	3.084	.002	
Hispanic	-5.68	3.04	-.114	-1.865	.063	
Percentage Intergovernmental	422.77	325.44	.050	1.299	.194	
NON-MANAGER[a]						.275
Population	.00	.00	.337	6.700	.000	
Density	-.03	.02	-.123	-1.781	.076	
Growth Rate	-.72	1.67	-.025	-.428	.669	
Median Income	.02	.01	.219	3.283	.001	
Home Ownership	-29.50	7.70	-.298	-3.832	.000	
Children	-44.56	24.15	-.123	-1.845	.066	
Elderly	23.13	24.04	.058	.962	.337	
Black	8.31	4.13	.125	2.013	.045	
Hispanic	1.39	6.07	.016	.230	.818	
Percentage Intergovernmental	2,065.66	467.40	.252	4.419	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]Mayor and commission cities were combined as non-manager cities.

Table 5.3 shows that, for the metro status classification, the regression model is best at predicting total spending in central cities (adjusted R^2 = .313). Central cities also have the most statistically significant coefficients at 6, compared to 3 for suburbs, and 2 for independent cities. Median income is the strongest predictor variable for central and independent cities and in both cases is in a positive relationship. Home ownership is the strongest predictor in suburbs followed by children, both showing a negative relationship.

Table 5.3. Total Expenditure Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.313
Population	.00	.00	.214	4.608	.000	
Density	.03	.03	.060	1.067	.286	
Growth Rate	-1.62	1.08	-.067	-1.500	.134	
Median Income	.04	.01	.286	5.801	.000	
Home Ownership	-23.66	7.77	-.192	-3.045	.002	
Children	-45.75	16.25	-.164	-2.816	.005	
Elderly	29.00	16.40	.089	1.769	.078	
Black	15.88	3.41	.223	4.654	.000	
Hispanic	.83	4.21	.011	.196	.845	
Percentage Intergovernmental	1,747.63	366.12	.214	4.773	.000	
SUBURB						.168
Population	.00	.00	.133	2.805	.005	
Density	-.01	.012	-.063	-.917	.360	
Growth Rate	.34	.31	.055	1.120	.263	
Median Income	.01	.00	.130	2.154	.032	
Home Ownership	-20.33	4.13	-.369	-4.928	.000	
Children	-40.88	15.13	-.234	-2.702	.007	
Elderly	3.02	11.75	.019	.257	.798	
Black	-.22	2.96	-.004	-.075	.940	
Hispanic	-5.31	3.20	-.133	-1.659	.098	
Percentage Intergovernmental	563.00	358.59	.081	1.570	.117	
INDEPENDENT						.221
Population	.03	.02	.199	1.641	.106	
Density	-.21	.15	-.156	-1.338	.186	
Growth Rate	-2.12	3.00	-.086	-.705	.483	
Median Income	.06	.03	.353	2.403	.019	
Home Ownership	11.61	24.90	.100	.466	.643	
Children	-21.46	42.20	-.092	-.509	.613	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Elderly	-28.74	49.04	-.101	-.586	.560	
Black	10.49	11.64	.139	.901	.371	
Hispanic	2.70	11.75	.032	.230	.819	
Percentage Intergovernmental	-2,848.02	964.30	-.324	-2.953	.004	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.4 sets out the findings based on principal city status. The model is better at predicting total expenditure for principal cities than for non-principal cities. Each category has six significant variables within that group, with median income, home ownership, and percentage intergovernmental common to both. Home ownership in non-principal cities is the strongest predictor while percent Black and population are the stronger predictors of the principal city's independent variables.

Table 5.4. Total Expenditure Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.259
Population	.00	.00	.231	5.471	.000	
Density	.02	.02	.050	.957	.339	
Growth Rate	-.21	.86	-.011	-.249	.803	
Median Income	.02	.01	.202	3.870	.000	
Home Ownership	-21.99	7.17	-.194	-3.067	.002	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Children	-49.77	16.70	-.178	-2.980	.003	
Elderly	10.41	15.65	.034	.666	.506	
Black	18.38	3.67	.244	5.006	.000	
Hispanic	-1.60	4.24	-.022	-.378	.705	
Percentage Intergovernmental	1,222.92	410.83	.135	2.977	.003	
NON-PRINCIPAL						.187
Population	.00	.00	.077	1.608	.108	
Density	-.05	.01	-.232	-3.782	.000	
Growth Rate	.06	.34	.008	.163	.871	
Median Income	.01	.00	.142	2.369	.018	
Home Ownership	-29.78	4.24	-.498	-7.024	.000	
Children	-1.57	12.85	-.009	-.122	.903	
Elderly	28.16	10.81	.157	2.604	.010	
Black	-3.84	2.7	-.071	-1.411	.159	
Hispanic	-7.46	3.17	-.171	-2.351	.019	
Percentage Intergovernmental	1,241.64	292.73	.197	4.242	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Common Function Expenditure for Different City Types

Regression results performed on common function expenditure for the NLC typology categories are presented in Table 5.5. Mega-metro centers again have the highest adjusted R^2 value at 55%, but none of the variables in this category is statistically significant. (It should be recognized that there are only 30 Mega-metro centers and having 10 independent variables with such a low number of cases results in an inflated adjusted R^2 value. Also, the variable for children just misses reaching statistical significance.) There are no variables reaching significance for the Centerville category. Meltingpot and Gold coast cities have the highest predictive values at 26% and 23% respectively. The percentage of children (a negative relationship) is the strongest predictor for Meltingpot cities and home ownership (a negative relationship) has the highest Beta value for Gold coast cities. Home ownership and growth rate (both negative relationships) are the best predictors for Metro centers, and median income (positive) and home ownership (negative) have the greatest impact for Boomtowns.

Table 5.5. Common Function Expenditure Regressed on Demographic Variables for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
SPREAD						.019
Population	.00	.00	.060	1.130	.259	
Density	-.02	-.01	-.132	-2.337	.020	
Growth Rate	.12	.44	.017	.271	.786	
Median Income	.00	.00	.031	.431	.667	
Home Ownership	-3.31	1.75	-.155	-1.886	.060	
Children	-2.22	3.92	-.041	-.567	.571	
Elderly	5.40	3.73	.092	1.446	.149	
Black	.79	.81	.064	.970	.333	
Hispanic	-.15	1.57	-.006	-.097	.923	
Percentage Intergovernmental	-66.94	94.69	-.042	-.707	.480	
GOLD COAST						.226
Population	.00	.00	-.026	-.364	.716	
Density	-.01	.01	-.053	-.708	.480	
Growth Rate	-.23	.60	-.027	-.383	.702	
Median Income	.00	.00	.074	.953	.342	
Home Ownership	-.9.46	2.46	-.402	-3.852	.000	
Children	-8.58	9.62	-.103	-.892	.374	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Elderly	4.07	5.91	.072	.688	.493	
Black	-1.81	2.65	-.048	-.683	.496	
Hispanic	.94	2.45	.027	.384	.701	
Percentage Intergovernmental	-628.51	236.73	-.187	-2.655	.009	
METRO CENTERS						.057
Population	.00	.00	.139	1.126	.264	
Density	-.03	.02	-.306	-1.636	.106	
Growth Rate	-1.93	.96	-.331	-2.003	.049	
Median Income	.01	.01	.359	1.693	.095	
Home Ownership	-12.43	5.39	-.496	-2.305	.024	
Children	8.75	13.31	.105	.657	.513	
Elderly	2.56	19.28	.023	.133	.895	
Black	.95	2.04	.073	.468	.641	
Hispanic	-1.83	2.89	-.106	-.631	.530	
Percentage Intergovernmental	-47.31	175.90	-.037	-.269	.789	
MELTINGPOTS						.258
Population	.00	.00	.055	.648	.518	
Density	-.01	.00	-.303	-2.252	.026	
Growth Rate	.26	.39	.065	.664	.508	
Median Income	.00	.00	.139	.884	.378	
Home Ownership	-3.56	2.41	-.231	-1.477	.142	
Children	-19.38	6.83	-.455	-2.837	.005	
Elderly	13.95	9.03	.192	1.544	.125	
Black	3.30	1.58	.239	2.092	.039	
Hispanic	3.30	1.51	.349	2.186	.031	
Percentage Intergovernmental	-279.16	165.21	-.184	-1.690	.094	
BOOMTOWNS						.007
Population	.00	.00	-.055	-.420	.676	
Density	-.02	.04	-.085	-.641	.524	
Growth Rate	-.04	.14	-.036	-.278	.782	
Median Income	.01	.00	.469	2.654	.010	
Home Ownership	-9.43	4.51	-.319	-2.089	.041	
Children	3.26	14.89	.042	.219	.827	
Elderly	18.67	13.85	.290	1.348	.182	
Black	-2.30	3.95	-.073	-.581	.563	
Hispanic	4.70	4.28	.171	1.097	.277	

Variable	Unstandardized Coefficients		Standardized Coefficients			Adj'd R^2
	B	Std. error	Beta	*t* score	Sig.	
Percentage Intergovernmental	74.00	376.62	.025	.196	.845	
CENTERVILLES						-.007
Population	-.00	.00	-.116	-.775	.441	
Density	-.01	.02	-.088	-.619	.538	
Growth Rate	-.25	1.05	-.044	-.237	.813	
Median Income	.01	.01	.249	1.415	.163	
Home Ownership	-3.76	4.63	-.198	-.813	.420	
Children	1.41	8.45	.035	.166	.868	
Elderly	-1.56	8.85	-.036	-.176	.861	
Black	.35	2.06	.030	.170	.866	
Hispanic	-2.77	2.07	-.254	-1.336	.187	
Percentage Intergovernmental	-104.99	168.04	-.083	-.625	.535	
MEGA-METRO CENTERS						.553
Population	-1.57E-006	.00	-.007	-.024	.981	
Density	.03	.03	.584	1.244	.229	
Growth Rate	-1.64	1.70	-.176	-.965	.347	
Median Income	.00	.01	.019	.094	.926	
Home Ownership	6.61	8.97	.191	.737	.470	
Children	-52.96	25.98	-.682	-2.038	.056	
Elderly	-40.70	32.91	-.277	-1.237	.231	
Black	7.32	4.22	.478	1.733	.099	
Hispanic	-.58	4.10	-.034	-.142	.889	
Percentage Intergovernmental	-438.60	520.38	-.219	-.843	.410	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

The results for manager and non-manager cities are reported in Table 5.6. The adjusted R^2 values are 15% and 17% respectively. (Because of the low number of cases for commission cities, they are combined with mayor cities as non-manager cities.) For manager cities, the strongest predictors are home ownership and median income, and for non-manager cities they are home ownership and population.

Table 5.6. Common Function Expenditure Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.152
Population	.00	.00	.135	3.511	.000	
Density	-.02	.00	-.174	-3.428	.001	
Growth Rate	.05	.09	.023	.572	.568	
Median Income	.00	.00	.241	4.438	.000	
Home Ownership	-6.83	1.28	-.345	-5.335	.000	
Children	-4.42	3.21	-.087	-1.377	.169	
Elderly	9.26	2.70	.176	3.432	.001	
Black	1.32	.81	.072	1.625	.105	
Hispanic	-.91	.83	-.069	-1.092	.275	
Percentage Intergovernmental	-197.00	88.62	-.087	-2.223	.027	
NON-MANAGER[a]						.167
Population	.00	.00	.285	5.278	.000	
Density	-.01	.00	-.164	-2.207	.028	
Growth Rate	-.08	.36	-.014	-.221	.825	
Median Income	.00	.00	.113	1.586	.114	
Home Ownership	-5.68	1.65	-.286	-3.437	.001	
Children	-9.49	5.19	-.131	-1.830	.068	
Elderly	-1.63	5.16	-.021	-.315	.753	
Black	2.26	.89	.170	2.550	.011	
Hispanic	.22	1.30	.012	.165	.869	
Percentage Intergovernmental	-74.02	100.40	-.045	-.737	.462	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues.   Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management

Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]Mayor and commission cities were combined as non-manager cities.

Table 5.7 shows that adjusted R^2 values for regressions on common function spending involving metro status are also low. Independent cities have no statistically significant variables with none even approaching significance. Median income is the strongest predictor for central cities, followed by percent Black. For suburban cities, home ownership, followed by percent children and percentage of intergovernmental revenue, is the best predictors in the model.

Table 5.7. Common Function Expenditure Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.225
Population	8.65E-005	.00	.170	3.455	.001	
Density	.01	.01	.059	.981	.327	
Growth Rate	-.37	.23	-.077	-1.636	.103	
Median Income	.01	.00	.341	6.532	.000	
Home Ownership	-4.03	1.64	-.165	-2.464	.014	
Children	-9.46	3.42	-.171	-2.764	.006	
Elderly	8.93	3.45	.139	2.587	.010	
Black	3.98	.72	.281	5.535	.000	
Hispanic	.89	.89	.060	1.003	.317	
Percentage Intergovernmental	-73.69	77.12	-.046	-.956	.340	
SUBURB						.151
Population	.00	.00	.101	.2116	.035	
Density	-.01	.00	-.090	-1.292	.197	
Growth Rate	.13	.10	.069	1.389	.165	
Median Income	.00	.00	.160	2.629	.009	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Home Ownership	-5.14	1.28	-.303	-4.009	.000	
Children	-11.12	4.70	-.207	-2.367	.018	
Elderly	.67	3.65	.013	.183	.855	
Black	.18	.92	.010	.190	.849	
Hispanic	-1.20	.99	-.097	-1.205	.229	
Percentage Intergovernmental	-381.82	111.39	-.179	-3.428	.001	
INDEPENDENT						-.024
Population	.00	.00	.007	.052	.959	
Density	-.04	.04	-.135	-1.009	.317	
Growth Rate	-.40	.84	-.066	-.471	.639	
Median Income	.01	.01	.197	1.168	.247	
Home Ownership	5.66	6.97	.201	.812	.420	
Children	-7.25	11.81	-.127	-.614	.541	
Elderly	-3.82	13.72	-.055	-.279	.782	
Black	1.25	3.26	.068	.384	.703	
Hispanic	1.04	3.29	.051	.315	.753	
Percentage Intergovernmental	-447.84	269.78	-.209	-1.660	.102	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Regression results based on principal city status are depicted in Table 5.8. The analysis of principal cities has an adjusted R^2 value of .124. Population, median income, and percent Black, all have approximately equal strength in predicting the amount of common function spending, with home ownership slightly lower. For non-principal cities, the adjusted R^2 is .142, with home ownership having the most impact, followed by median income and density.

Table 5.8. Common Function Expenditure Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.124
Population	.00	.00	.202	4.406	.000	
Density	-.00	.00	-.037	-.653	.514	
Growth Rate	-.06	.20	-.015	-.311	.756	
Median Income	.01	.00	.232	4.087	.000	
Home Ownership	-4.17	1.65	-.174	-2.526	.012	
Children	-6.64	3.84	-.112	-1.727	.085	
Elderly	5.32	3.60	.082	1.478	.140	
Black	3.33	.85	.209	3.948	.000	
Hispanic	-.41	.98	-.026	-.422	.673	
Percentage Intergovernmental	-32.85	94.52	-.017	-.348	.728	
NON-PRINCIPAL						.142
Population	.00	.00	.081	1.634	.103	
Density	-.01	.00	-.186	-2.923	.004	
Growth Rate	.05	.09	.027	.528	.597	
Median Income	.00	.00	.210	3.365	.001	
Home Ownership	-6.14	1.19	-.381	-5.173	.000	
Children	-5.27	3.60	-.107	-1.466	.143	
Elderly	6.98	3.02	.145	2.309	.021	
Black	.24	.76	.017	.315	.753	
Hispanic	-.86	.89	-.074	-.971	.332	
Percentage Intergovernmental	-227.19	81.89	-.134	-2.774	.006	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Police Expenditure for Different City Types

Regression analysis is also conducted on police spending. The results for the typology cities are shown in Table 5.9. Centervilles have no significant variables. Boomtowns and Mega-metro centers have only one each – children and Black, respectively. Spread and Meltingpot cities have the most with five, whereas Gold coast cities have three. The adjusted R^2 values range from lows of -.010 for Boomtowns and .079 for Centervilles to a high of .725 for Mega-metro centers. The remaining city types' adjusted R^2 values range from 17 to 27%.

Table 5.9. Police Expenditure Regressed on Demographic Variables for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
SPREAD						.207
Population	.00	.00	.093	1.962	.050	
Density	.00	.00	.026	.510	.610	
Growth Rate	-.07	.11	-.039	-.678	.498	
Median Income	.00	.00	.365	5.557	.000	
Home Ownership	-1.83	.43	-.318	-4.305	.000	
Children	-.58	.95	-.039	-.611	.542	
Elderly	4.97	.91	.313	5.479	.000	
Black	1.46	.20	.438	7.385	.000	
Hispanic	1.02	.38	.153	2.675	.008	
Percentage Intergovernmental	-26.84	23.02	-.062	-1.166	.244	
GOLD COAST						.271
Population	.00	.00	-.042	-.599	.550	
Density	.00	.00	.067	.918	.360	
Growth Rate	-.22	.19	-.079	-1.134	.258	
Median Income	.00	.00	.182	2.419	.017	
Home Ownership	-3.03	.78	-.393	-3.878	.000	
Children	-2.60	3.06	-.095	-.848	.397	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Elderly	2.50	1.88	.135	1.327	.186	
Black	.20	.84	.016	.237	.813	
Hispanic	2.36	.78	.210	3.026	.003	
Percentage Intergovernmental	-19.70	75.31	-.018	-.262	.794	
METRO CENTERS						.165
Population	.00	.00	.223	1.922	.059	
Density	.00	.01	-.010	-.056	.955	
Growth Rate	-.41	.27	-.234	-1.507	.137	
Median Income	.00	.00	.430	2.154	.035	
Home Ownership	-3.52	1.52	-.470	-2.322	.023	
Children	5.09	3.74	.204	1.360	.178	
Elderly	4.46	5.42	.135	.824	.413	
Black	1.10	.57	.283	1.923	.059	
Hispanic	.32	.81	.061	.388	.700	
Percentage Intergovernmental	1.08	49.45	.003	.022	.983	
MELTINGPOTS						.256
Population	4.07E-005	.00	.031	.383	.702	
Density	-.00	.00	-.233	-1.804	.074	
Growth Rate	-.09	.12	-.075	-.807	.421	
Median Income	.00	.00	.335	2.221	.028	
Home Ownership	-1.90	.71	-.402	-2.685	.008	
Children	-5.64	2.01	-.431	-2.804	.006	
Elderly	2.97	2.66	.134	1.119	.266	
Black	1.53	.46	.362	3.309	.001	
Hispanic	1.30	.45	.447	2.924	.004	
Percentage Intergovernmental	-76.53	48.61	-.164	-1.574	.118	
BOOMTOWNS						-.010
Population	2.15E-005	.00	.010	.073	.942	
Density	.01	.01	.110	.819	.416	
Growth Rate	-.01	.05	-.035	-.269	.789	
Median Income	.00	.00	-.032	-.182	.856	
Home Ownership	.48	1.60	.047	.304	.762	
Children	-11.78	5.26	-.435	-2.239	.029	
Elderly	-6.04	4.90	-.268	-1.234	.222	
Black	-.86	1.40	-.078	-.613	.542	
Hispanic	2.43	1.51	.253	1.605	.113	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Percentage Intergovernmental	-23.91	133.09	-.023	-.180	.858	
CENTERVILLES						.079
Population	-.00	.00	-.266	-1.867	.067	
Density	-.00	.01	-.096	-.707	.483	
Growth Rate	-.17	.23	-.135	-.757	.452	
Median Income	.00	.00	.203	1.210	.231	
Home Ownership	-1.38	1.01	-.318	-1.365	.178	
Children	1.81	1.85	.198	.978	.332	
Elderly	-2.96	1.94	-.303	-1.527	.132	
Black	.02	.45	.009	.051	.959	
Hispanic	-.20	.45	-.080	-.438	.663	
Percentage Intergovernmental	39.25	36.79	.135	1.067	.290	
MEGA-METRO CENTERS						.725
Population	-8.83E-006	.00	-.112	-.463	.649	
Density	.01	.01	.424	1.151	.264	
Growth Rate	-.57	.49	-.164	-1.147	.266	
Median Income	.00	.00	.078	.491	.629	
Home Ownership	-1.64	2.61	-.129	-.631	.536	
Children	-11.69	7.55	-.406	-1.548	.138	
Elderly	-5.35	9.56	-.098	-.559	.583	
Black	2.78	1.23	.489	2.262	.036	
Hispanic	1.30	1.19	.206	1.087	.291	
Percentage Intergovernmental	96.69	151.19	.130	.640	.530	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

The variables median income and home ownership are statistically significant in four of the categories of cities, while Black and Hispanic are significant in three. The percentage of children and elderly are only significant in two and one categories, respectively.

Table 5.10 shows adjusted R^2 values of .348 for non-manager cities and .184 for manager cities in regressions on police expenditure. Manager cities have seven significant variables and non-manager have five. The greatest predictors for manager cities are median income and home ownership, and for non-manager cities percent Black has the most impact, with median income and home ownership having the next two highest Beta weights.

Table 5.10. Police Expenditure Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.184
Population	5.90E-005	.00	.096	2.555	.011	
Density	.00	.00	.058	1.170	.243	
Growth Rate	-.00	.03	-.002	-.059	.953	
Median Income	.00	.00	.363	6.817	.000	
Home Ownership	-1.86	.38	-.307	-4.833	.000	
Children	-2.37	.96	-.152	-2.459	.014	
Elderly	3.62	.81	.225	4.468	.000	
Black	1.20	.24	.213	4.910	.000	
Hispanic	.66	.25	.165	2.668	.008	
Percentage Intergovernmental	-40.87	26.61	-.059	-1.536	.125	
NON-MANAGER[a]						.348
Population	3.68E-005	.00	.252	5.270	.000	
Density	-.00	.00	-.100	-1.514	.131	
Growth Rate	-.10	.10	-.058	-1.047	.296	
Median Income	.00	.00	.348	5.535	.000	
Home Ownership	-1.86	.45	-.302	-4.113	.000	
Children	-2.19	1.41	-.099	-1.551	.122	
Elderly	1.20	1.41	.049	.851	.395	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Black	1.78	.24	.436	7.369	.000	
Hispanic	1.08	.36	.196	3.035	.003	
Percentage Intergovernmental	36.61	27.35	.073	1.339	.182	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]Mayor and commission cities were combined as non-manager cities.

As shown in Table 5.11, central and independent cities have adjusted R^2 values of .430 and .344, while suburbs are lower at .163. Central cities have seven significant variables, with percent Black and median income having the most impact. Suburban cities also have seven variables shown to be significant, with percentage of children, home ownership, and median income impacting the most. Independent cities only have four variables showing significant, but home ownership and children are both very strong predictors, followed by population and density.

Table 5.11. Police Expenditure Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.430
Population	1.25E-005	.00	.077	1.823	.069	
Density	.01	.00	.234	4.562	.000	
Growth Rate	-.08	.06	-.052	-1.291	.197	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Median Income	.00	.00	.354	7.887	.000	
Home Ownership	-1.42	.45	-.182	-3.176	.002	
Children	-2.99	.94	-.169	-3.182	.002	
Elderly	5.32	.95	.258	5.617	.000	
Black	2.10	.20	.465	10.668	.000	
Hispanic	1.32	.24	.277	5.436	.000	
Percentage Intergovernmental	-2.32	21.13	-.004	-.110	.913	
SUBURB						.163
Population	.00	.00	.115	2.417	.016	
Density	-.00	.00	-.050	-.724	.469	
Growth Rate	-.02	.03	-.025	-.513	.608	
Median Income	.00	.00	.226	3.731	.000	
Home Ownership	-1.55	.42	-.276	-3.668	.000	
Children	-5.41	1.55	-.304	-3.496	.001	
Elderly	.09	1.20	.006	.076	.939	
Black	10.2	.30	.178	3.353	.001	
Hispanic	.74	.33	.182	2.263	.024	
Percentage Intergovernmental	-72.61	36.68	-.103	-1.979	.048	
INDEPENDENT						.344
Population	-.00	.00	-.236	-2.119	.038	
Density	-.01	.01	-.219	-2.046	.045	
Growth Rate	-.15	.11	-.149	-1.329	.189	
Median Income	.00	.00	.236	1.753	.084	
Home Ownership	-3.43	.94	-.720	-3.644	.001	
Children	6.22	1.60	.646	3.898	.000	
Elderly	.87	1.85	.075	.471	.639	
Black	-.49	.44	-.159	-1.123	.266	
Hispanic	-.59	.44	-.173	-1.330	.188	
Percentage Intergovernmental	60.92	36.45	.168	1.671	.100	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Regression results in Table 5.12 show principal cities have an adjusted R^2 value of .351 compared to .146 for the non-principal cities. Median income is the strongest predictor for both type cities. Black has almost as much impact as median income in principal cities while in non-principal cities home ownership's impact is next most important.

Table 5.12. Police Expenditure Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.351
Population	2.82E-005	.00	.170	4.298	.000	
Density	.00	.00	.064	1.292	.197	
Growth Rate	-.09	.05	-.074	-1.780	.076	
Median Income	.00	.00	.408	8.354	.000	
Home Ownership	-2.23	.41	-.321	-5.416	.000	
Children	-1.09	.96	-.064	-1.139	.255	
Elderly	4.74	.90	.252	5.268	.000	
Black	1.78	.21	.384	8.420	.000	
Hispanic	.83	.24	.183	3.405	.001	
Percentage Intergovernmental	26.17	23.60	.047	1.109	.268	
NON-PRINCIPAL						.146
Population	.00	.00	.083	1.685	.093	
Density	-.00	.00	-.061	-.972	.331	
Growth Rate	-.01	.03	-.015	-.312	.755	
Median Income	.00	.00	.349	5.678	.000	
Home Ownership	-1.62	.41	-.285	-3.919	.000	
Children	-3.80	1.25	-.220	-3.051	.002	
Elderly	1.84	1.05	.108	1.751	.081	
Black	1.14	.26	.224	4.333	.000	
Hispanic	.99	.31	.239	3.199	.001	
Percentage Intergovernmental	-46.66	28.40	-.078	-1.643	.101	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Total Revenue for Different City Types

Table 5.13 reports the results of regression analysis on total revenue for the NLC typology cities. The adjusted R^2 values are similar overall to what they were for the total expenditure regressions. Mega-metro and Metro centers have the highest adjusted R^2 values, followed by Centervilles, Meltingpot cities, Gold coast cities, Spread cities, and Boomtowns. Spread cities and Metro centers each have four significant variables. Gold coast and Meltingpot cities and Centervilles only have one each. Median income is statistically significant in four categories of cities followed by home ownership in three.

Table 5.13. Total Revenue Regressed on Demographic Variables
for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			Adj'd
	B	Std. error	Beta	*t* score	Sig.	R^2
SPREAD						.118
Population	.00	.00	.088	1.750	.081	
Density	-.16	.03	-.302	-5.653	.000	
Growth Rate	-.22	1.76	-.007	-.122	.903	
Median Income	.03	.01	.225	3.247	.001	
Home Ownership	-33.26	7.06	-.367	-4.709	.000	
Children	-5.13	15.78	-.022	-.325	.745	
Elderly	43.69	15.05	.175	2.904	.004	
Black	2.19	3.28	.042	.669	.504	
Hispanic	.76	6.31	.007	.120	.904	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Percentage Intergovernmental	573.86	381.61	.084	1.504	.134	
GOLD COAST						.245
Population	.00	.00	.045	.639	.523	
Density	-.05	.03	-.110	-1.492	.138	
Growth Rate	-3.67	1.93	-.135	-1.902	.059	
Median Income	.01	.01	.109	1.431	.154	
Home Ownership	-29.95	7.86	-.392	-3.811	.000	
Children	-48.44	30.80	-.179	-1.573	.118	
Elderly	3.07	18.93	.017	.162	.871	
Black	-8.53	8.48	-.069	-1.006	.316	
Hispanic	-2.13	7.84	-.019	-.272	.786	
Percentage Intergovernmental	-1,384.06	757.90	-.127	-1.826	.070	
METRO CENTERS						.506
Population	-.00	.00	-.068	-.763	.448	
Density	-.04	.06	-.091	-.669	.505	
Growth Rate	-10.81	3.10	-.416	-3.484	.001	
Median Income	.07	.02	.455	2.967	.004	
Home Ownership	-.41.10	17.35	-.369	-2.368	.021	
Children	40.61	42.83	.109	.948	.346	
Elderly	-7.59	62.03	-.015	-.122	.903	
Black	4.98	6.55	.086	.760	.450	
Hispanic	-3.78	9.30	-.050	-.407	.685	
Percentage Intergovernmental	2,564.81	565.95	.456	4.532	.000	
MELTINGPOTS						.225
Population	.00	.00	-.009	-.105	.916	
Density	-.01	.02	-.111	-.843	.401	
Growth Rate	1.11	1.66	.064	.670	.504	
Median Income	-.02	.01	-.234	-1.520	.131	
Home Ownership	.32	10.13	.005	.032	.975	
Children	-136.17	28.72	-.744	-4.741	.000	
Elderly	-57.10	37.97	-.183	-1.504	.135	
Black	3.63	6.62	.061	.548	.585	
Hispanic	8.28	6.36	.203	1.302	.195	
Percentage Intergovernmental	550.04	694.72	.084	.792	.430	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
BOOMTOWNS						.039
Population	-.00	.00	-.084	-.651	.517	
Density	-.09	.08	-.147	-1.126	.264	
Growth Rate	-.13	.34	-.047	-.377	.708	
Median Income	.03	.01	.456	2.624	.011	
Home Ownership	-18.16	10.60	-.258	-1.713	.092	
Children	-8.25	34.98	-.045	-.236	.814	
Elderly	40.11	32.54	.261	1.232	.222	
Black	-12.13	9.29	-.161	-1.306	.196	
Hispanic	20.78	10.06	.317	2.065	.043	
Percentage Intergovernmental	551.06	884.78	.076	.623	.536	
CENTERVILLES						.266
Population	-.02	.02	-.124	-.974	.334	
Density	-.21	.11	-.239	-1.967	.054	
Growth Rate	-2.64	5.13	-.082	-.514	.609	
Median Income	.08	.02	.558	3.721	.000	
Home Ownership	-36.64	22.56	-.338	-1.624	.110	
Children	14.89	41.20	.065	.362	.719	
Elderly	22.17	43.13	.091	.514	.609	
Black	12.75	10.06	.195	-1.267	.210	
Hispanic	-9.78	10.09	-.158	-.970	.336	
Percentage Intergovernmental	-1,083.99	818.93	-.150	-1.324	.191	
MEGA-METRO CENTERS						.593
Population	.00	.00	.488	1.661	.113	
Density	-.12	.17	-.301	-.671	.510	
Growth Rate	-2.58	11.09	-.041	-.233	.818	
Median Income	.04	.05	.131	.681	.504	
Home Ownership	58.91	58.55	.249	1.006	.327	
Children	-624.08	169.56	-1.175	-3.681	.002	
Elderly	-11.99	214.73	-.012	-.056	.956	
Black	101.38	27.56	.968	3.678	.002	
Hispanic	69.29	26.78	.598	2.588	.018	
Percentage Intergovernmental	3,719.61	3,395.70	.271	1.095	.287	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.14 shows regression results on total revenue for manager and non-manager cities. Non-manager cities have an adjusted R^2 value of .228, and the manager category's is .165. Each category has six significant variables, with home ownership the strongest predictor for both. Population, density, median income, and percent Black are also significant in both categories. Elderly is only significant for manager cities and percentage intergovernmental is significant only for the non-manager group.

Table 5.14. Total Revenue Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.165
Population	.00	.00	.079	2.082	.038	
Density	-.06	.02	-.175	-3.474	.001	
Growth Rate	.20	.34	.024	.597	.551	
Median Income	.01	.00	.203	3.770	.000	
Home Ownership	-31.33	4.75	-.424	-6.600	.000	
Children	-14.21	11.89	-.075	-1.195	.233	
Elderly	22.81	10.00	.116	2.280	.023	
Black	7.22	3.01	.105	2.399	.017	
Hispanic	-4.96	3.07	-.101	-1.613	.107	
Percentage Intergovernmental	180.90	328.50	.021	.551	.582	
NON-MANAGER[a]						.228
Population	.00	.00	.270	5.194	.000	
Density	-.04	.02	-.155	-2.165	.031	
Growth Rate	-.57	1.59	-.021	-.359	.720	
Median Income	.02	.01	.218	3.175	.002	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Home Ownership	-28.81	7.32	-.315	-3.934	.000	
Children	-40.88	22.97	-.123	-1.779	.076	
Elderly	20.74	22.87	.057	.907	.365	
Black	8.11	3.93	.133	2.065	.040	
Hispanic	2.88	5.77	.035	.500	.618	
Percentage Intergovernmental	1,857.13	444.64	.246	4.177	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]Mayor and commission cities were combined as non-manager cities.

Regression results on total revenue for cities based on metro status (Table 5.15) show central cities have the highest adjusted R^2 value (.255) and the greatest number of significant variables (7). The major predictors of total revenue are median income for central and independent cities and home ownership for suburbs. The next strongest predictors are: home ownership, percent Black, and percentage intergovernmental for central cities; percent children and median income for suburbs; and percentage intergovernmental for independent cities.

Table 5.15. Total Revenue Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.255
Population	.00	.00	.156	3.232	.001	
Density	.01	.03	.021	.362	.718	
Growth Rate	-1.65	1.06	-.072	-1.558	.120	
Median Income	.04	.01	.317	6.188	.000	
Home Ownership	-25.48	7.61	-.219	-3.347	.001	
Children	-37.13	15.92	-.141	-2.332	.020	
Elderly	34.82	16.06	.114	2.167	.031	
Black	14.72	3.34	.220	4.404	.000	
Hispanic	2.04	4.13	.029	.494	.622	
Percentage Intergovernmental	1,486.16	358.72	.194	4.143	.000	
SUBURB						.170
Population	.00	.00	.129	2.726	.007	
Density	-.02	.01	-.091	-1.319	.188	
Growth Rate	.42	.30	.070	1.411	.159	
Median Income	.01	.00	.147	2.428	.016	
Home Ownership	-22.79	4.06	-.420	-5.613	.000	
Children	-36.28	14.89	-.211	-2.436	.015	
Elderly	4.32	11.57	.027	.374	.709	
Black	-1.06	2.91	-.019	-.365	.715	
Hispanic	-4.67	3.15	-.118	-1.483	.139	
Percentage Intergovernmental	369.34	352.97	.054	1.046	.296	
INDEPENDENT						.219
Population	.02	.02	.160	1.313	.194	
Density	-.22	.16	-.161	-1.376	.174	
Growth Rate	-1.65	3.10	-.065	-.532	.597	
Median Income	.06	.03	.366	2.486	.016	
Home Ownership	19.13	25.71	.160	.744	.460	
Children	-33.45	43.57	-.138	-.765	.447	
Elderly	-36.07	50.63	-.124	-.712	.479	
Black	14.45	12.02	.186	1.202	.234	
Hispanic	3.31	12.14	.039	.272	.786	
Percentage Intergovernmental	-2,944.32	995.53	-.325	-2.958	.004	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

The variable total revenue in principal cities is impacted by median income, percent Black, and home ownership, as shown in Table 5.16. Home ownership, followed by density, is the strongest predictor for non-principal cities. Growth rate is the only variable that is not statistically significant for either of these type cities.

Table 5.16. Total Revenue Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.201
Population	.00	.00	.167	3.820	.000	
Density	.01	.02	.040	.726	.468	
Growth Rate	-.09	.84	-.005	-.101	.919	
Median Income	.02	.01	.228	4.214	.000	
Home Ownership	-22.82	7.05	-.213	-3.239	.001	
Children	-42.77	16.41	-.162	-2.606	.009	
Elderly	15.39	15.38	.053	1.001	.317	
Black	16.71	3.61	.235	4.633	.000	
Hispanic	-.92	4.17	-.013	-.220	.826	
Percentage Intergovernmental	888.05	403.75	.103	2.199	.028	
NON-PRINCIPAL						.187
Population	.00	.00	.061	1.269	.205	
Density	-.05	.01	-.273	-4.453	.000	
Growth Rate	.13	.33	.019	.387	.699	
Median Income	.01	.00	.162	2.693	.007	
Home Ownership	-32.11	4.20	-.543	-7.650	.000	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Children	3.84	12.72	.021	.302	.763	
Elderly	29.93	10.70	.169	2.797	.005	
Black	-3.51	2.69	-.066	-1.304	.193	
Hispanic	-6.24	3.14	-.145	-1.988	.047	
Percentage Intergovernmental	1,121.53	289.79	.180	3.870	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Property Tax Revenue for Different City Types

The results of regression testing of the NLC typology in terms of property tax revenue are set out in Table 5.17. Spread cities have the most (6) significant variables influencing property tax revenue. Of these, median income (with a positive influence) and home ownership (with a negative effect) are the variables with the greatest impact. Density and growth rate are the main influences in Gold coast cities, and they both have a negative relationship to property tax revenue.

Percentage intergovernmental revenue and median income have the highest Beta values in the Metro center regression and both positively impact property tax revenue; whereas the percentage of children, with a negative impact, has the strongest impact for Meltingpot cities. Median income is the only significant variable shown for Boomtowns, and Mega-metro centers have no statistically significant independent variables. Median income is the greatest indicator of property tax revenue for Centervilles, with a Beta of

.722 (over twice the impact of the only other significant variable, density). Overall median income has the greatest impact on property tax revenue in 4 of the 7 categories.

Table 5.17. Property Tax Revenue Regressed on Demographic Variables for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
SPREAD						.367
Population	.00	.00	.048	1.132	.258	
Density	-.02	.01	-.137	-3.024	.003	
Growth Rate	-1.51	.50	-.156	-3.039	.003	
Median Income	.02	.00	.503	8.557	.000	
Home Ownership	-12.41	2.01	-.411	-6.186	.000	
Children	-2.52	4.47	-.033	-.563	.574	
Elderly	21.57	4.23	.260	5.097	.000	
Black	-1.06	.92	-.061	-1.152	.250	
Hispanic	.51	1.78	.015	.287	.775	
Percentage Intergovernmental	840.02	109.05	.366	7.703	.000	
GOLD COAST						.108
Population	.00	.00	.022	.286	.775	
Density	-.03	.01	-.175	-2.182	.030	
Growth Rate	-2.50	.83	-.233	-3.028	.003	
Median Income	.00	.00	.099	1.191	.235	
Home Ownership	-5.79	3.36	-.193	-1.721	.087	
Children	-22.35	13.18	-.210	-1.696	.092	
Elderly	-4.02	81.00	-.055	-.496	.621	
Black	4.47	3.63	.093	1.234	.219	
Hispanic	-3.07	3.35	-.070	-.915	.361	
Percentage Intergovernmental	399.00	324.17	.093	1.231	.220	
METRO CENTERS						.520
Population	-.00	.00	-.213	-2.422	.018	
Density	-.03	.02	-.188	-1.396	.167	
Growth Rate	-2.95	1.17	-.303	-2.531	.014	
Median Income	.03	.01	.491	3.240	.002	
Home Ownership	-10.21	6.01	-.258	-1.697	.094	

Variable	Unstandardized Coefficients		Standardized Coefficients			Adj'd R^2
	B	Std. error	Beta	*t* score	Sig.	
Children	-10.83	14.83	-.084	-.730	.468	
Elderly	-8.96	21.88	-.052	-.409	.683	
Black	3.01	2.27	.148	1.326	.189	
Hispanic	5.68	3.23	.213	1.760	.083	
Percentage Intergovernmental	1,029.79	196.08	.525	5.252	.000	
MELTINGPOTS						.328
Population	.00	.00	.027	.346	.730	
Density	.00	.00	.029	.240	.811	
Growth Rate	.12	.40	.026	.289	.773	
Median Income	.00	.00	.113	.786	.433	
Home Ownership	-1.10	2.42	-.065	-.454	.651	
Children	-30.23	6.86	-.645	-4.411	.000	
Elderly	-9.75	9.06	-.122	-1.075	.284	
Black	3.29	1.58	.216	2.080	.040	
Hispanic	2.14	1.52	.205	1.412	.161	
Percentage Intergovernmental	174.08	165.81	.104	1.050	.296	
BOOMTOWNS						.102
Population	-.00	.00	-.243	-1.934	.058	
Density	-.03	.02	-.162	-1.280	.205	
Growth Rate	-.06	.09	-.085	-.695	.490	
Median Income	.01	.00	.354	2.086	.041	
Home Ownership	-4.10	2.66	-.226	-1.542	.128	
Children	-13.96	8.78	-.293	-1.590	.117	
Elderly	-5.61	8.18	-.142	-.685	.496	
Black	1.06	2.33	.055	.456	.650	
Hispanic	3.88	2.53	.228	1.534	.130	
Percentage Intergovernmental	176.06	223.51	.094	.788	.434	
CENTERVILLES						.469
Population	.01	.00	.190	1.742	.087	
Density	-.07	.02	-.320	-2.988	.004	
Growth Rate	-1.99	1.09	-.246	-1.823	.074	
Median Income	.03	.01	.722	5.636	.000	
Home Ownership	-9.73	4.98	-.360	-1.955	.056	
Children	-1.36	8.85	-.024	-.153	.879	
Elderly	12.10	9.24	.200	1.310	.196	
Black	.15	2.16	.009	.069	.946	
Hispanic	1.01	2.14	.065	.470	.640	

Variable	Unstandardized Coefficients		Standardized Coefficients			Adj'd R^2
	B	Std. error	Beta	*t* score	Sig.	
Percentage Intergovernmental	552.13	183.53	.300	3.008	.004	
MEGA-METRO CENTERS						.381
Population	5.75E-005	.00	.218	.600	.555	
Density	-.02	.04	-.322	-.584	.566	
Growth Rate	.23	2.48	.020	.092	.928	
Median Income	.01	.01	.118	.497	.625	
Home Ownership	-8.354	13.08	-.195	-.639	.531	
Children	-71.71	37.88	-.745	-1.893	.074	
Elderly	-.70	47.98	-.004	-.015	.988	
Black	8.00	6.16	.421	1.299	.209	
Hispanic	6.25	5.98	.298	1.045	.309	
Percentage Intergovernmental	1,158.33	758.68	.466	1.527	.143	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Regressions on property tax revenue for manager and non-manager cities are reported in Table 5.18. The adjusted R^2 value for non-manager cities is over twice as large as for manager cities. The biggest predictor in non-manager cities is median income with a Beta weight value of .616, with the next largest Beta weight -.352 for home ownership. Home ownership is followed by percentage intergovernmental revenue and density. For manager cities, the Beta for median income is .324, with percentage intergovernmental revenue at .289 and home ownership at .253.

Table 5.18. Property Tax Revenue Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.176
Population	8.50E-007	.00	.000	.012	.990	
Density	-.01	.00	-.079	-1.570	.117	
Growth Rate	-.03	.08	-.014	-.357	.721	
Median Income	.01	.00	.324	6.029	.000	
Home Ownership	-4.67	1.18	-.253	-3.954	.000	
Children	-5.24	2.95	-.111	-1.776	.076	
Elderly	3.56	2.48	.073	1.435	.152	
Black	1.87	.75	.109	2.503	.013	
Hispanic	-.90	.76	-.073	-1.173	.241	
Percentage Intergovernmental	611.74	82.16	.289	7.446	.000	
NON-MANAGER[a]						.379
Population	6.39E-005	.00	.085	1.818	.070	
Density	-.02	.01	-.245	-3.813	.000	
Growth Rate	-1.44	.49	-.158	-2.913	.004	
Median Income	.02	.00	.616	9.970	.000	
Home Ownership	-11.13	2.29	-.352	-4.861	.000	
Children	-17.41	7.16	-.152	-2.431	.016	
Elderly	25.49	7.10	.202	3.590	.000	
Black	.39	1.22	.019	.320	.749	
Hispanic	4.03	1.79	.142	2.249	.025	
Percentage Intergovernmental	835.04	140.12	.318	5.959	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]Mayor and commission cities were combined as non-manager cities.

Table 5.19 shows the regression results for metro status. The regression model is best at predicting property tax revenue in independent (adjusted R^2 = .445) and central cities (adjusted R^2 = .323). The largest percentage of variation in central cities is due to median income and percentage intergovernmental revenue. In independent cities, the major predictor is median income, with a Beta of .806. The only other statistically significant variable, percentage intergovernmental, has a Beta of .200. For suburbs, the Beta for percentage intergovernmental is only slightly higher than that of home ownership which is followed by median income.

Table 5.19. Property Tax Revenue Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.323
Population	2.47E-005	.00	.033	.724	.470	
Density	-.01	.01	-.047	-.839	.402	
Growth Rate	-.65	.31	-.092	-2.088	.037	
Median Income	.02	.00	.428	8.742	.000	
Home Ownership	-8.69	2.24	-.244	-3.890	.000	
Children	-10.43	4.68	-.129	-2.228	.026	
Elderly	14.31	4.70	.153	3.044	.002	
Black	1.14	.98	.055	1.160	.247	
Hispanic	1.49	1.21	.068	1.225	.221	
Percentage Intergovernmental	917.04	105.39	.390	8.701	.000	
SUBURB						.184
Population	5.41E-005	.00	.009	.183	.855	
Density	-.01	.00	-.104	-1.510	.132	
Growth Rate	-.07	.10	-.035	-.715	.475	
Median Income	.00	.00	.203	3.388	.001	
Home Ownership	-4.80	1.40	-.254	-3.422	.001	
Children	-9.76	5.15	-.163	-1.896	.059	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Elderly	3.81	4.00	.068	.952	.342	
Black	-.21	1.01	-.011	-.210	.834	
Hispanic	-1.78	1.09	-.130	-1.635	.103	
Percentage Intergovernmental	706.71	124.35	.293	5.683	.000	
INDEPENDENT						.445
Population	.00	.00	.034	.332	.741	
Density	-.05	.03	-.138	-1.385	.171	
Growth Rate	-.86	.63	-.143	-1.374	.174	
Median Income	.03	.01	.806	6.462	.000	
Home Ownership	-6.67	5.29	-.234	-1.261	.212	
Children	-11.68	8.83	-.203	-1.323	.191	
Elderly	13.96	10.30	.201	1.356	.180	
Black	.68	2.44	.037	.279	.781	
Hispanic	2.01	2.46	.099	.818	.417	
Percentage Intergovernmental	442.78	209.23	.200	2.116	.038	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.20 contains the results of regressions on property tax revenue based on principal city status. The adjusted R^2 values show the model is about equally predictive for each type city, with median income, home ownership, and percent intergovernmental revenue having the most impact for each type.

Table 5.20. Property Tax Revenue Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.241
Population	4.45E-005	.00	.062	1.449	.148	
Density	-.00	.01	-.044	-.820	.413	
Growth Rate	-.41	.23	-.080	-1.792	.074	
Median Income	.01	.00	.402	7.604	.000	
Home Ownership	-6.71	1.93	-.223	-3.485	.001	
Children	-10.19	4.49	-.138	-2.272	.024	
Elderly	8.85	4.20	.109	2.104	.036	
Black	1.24	.99	.062	1.255	.210	
Hispanic	.42	1.14	.022	.372	.710	
Percentage Intergovernmental	799.54	110.51	.332	7.235	.000	
NON-PRINCIPAL						.236
Population	.00	.00	.030	.645	.520	
Density	-.01	.00	-.154	-2.572	.010	
Growth Rate	-.07	.12	-.030	-.629	.530	
Median Income	.01	.00	.308	5.273	.000	
Home Ownership	-6.74	1.49	-.313	-4.528	.000	
Children	-4.99	4.50	-.076	-1.109	.268	
Elderly	8.52	3.78	.132	2.255	.025	
Black	-.78	.95	-.040	-.817	.415	
Hispanic	-1.28	1.11	-.082	-1.154	.249	
Percentage Intergovernmental	902.92	104.02	.393	8.680	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Sales Tax Revenue for Different City Types

Table 5.21 shows regression results for the NLC typology categories in terms of sales tax revenue. Percentage of intergovernmental revenue is statistically significant in all categories, except for Mega-metro centers where percent Black is the only significant factor shown and percent Hispanic is just above significance at .051. The model best predicts sales tax revenue for Meltingpot and Gold coast cities and Centervilles. In all these instances population density and percentage intergovernmental revenue are impacting variables with a variety of variables also impacting in the first two categories and only Black in Centervilles. Percent Black is statistically significant in Gold coast cities as well, and in both categories this variable has a negative relationship with sales tax revenue.

Table 5.21. Sales Tax Revenue Regressed on Demographic Variables for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
SPREAD						.157
Population	.00	.00	.058	1.054	.293	
Density	-.01	.01	-.107	-1.799	.073	
Growth Rate	-.02	.36	-.004	-.059	.953	
Median Income	.00	.00	.022	.280	.780	
Home Ownership	-.38	1.76	-.020	-.217	.828	
Children	-2.53	3.47	-.055	-.730	.466	
Elderly	.97	3.31	.021	.291	.771	
Black	.70	.73	.069	.968	.334	
Hispanic	3.08	1.32	.156	2.336	.020	
Percentage Intergovernmental	-460.11	80.57	-.347	-5.711	.000	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
GOLD COAST						.381
Population	.00	.00	.048	.700	.485	
Density	-.00	.01	-.048	-.656	.513	
Growth Rate	.09	.42	.014	.207	.836	
Median Income	.00	.00	.106	1.400	.163	
Home Ownership	-4.24	1.65	-.255	-2.566	.011	
Children	-17.89	6.56	-.306	-2.727	.007	
Elderly	-3.06	4.04	-.078	-.759	.449	
Black	-4.73	2.00	-.162	-2.368	.019	
Hispanic	5.45	1.63	.226	3.341	.001	
Percentage Intergovernmental	-519.40	156.42	-.224	-3.320	.001	
METRO CENTERS						.251
Population	.00	.00	.170	1.514	.135	
Density	-.01	.01	-.180	-1.009	.317	
Growth Rate	-1.01	.60	-.254	-1.677	.098	
Median Income	.01	.01	.521	2.633	.011	
Home Ownership	-2.48	3.64	-.133	-.682	.498	
Children	9.72	8.56	.170	1.136	.260	
Elderly	20.21	12.68	.266	1.595	.116	
Black	2.37	1.27	.268	1.860	.068	
Hispanic	1.97	1.83	.165	1.080	.284	
Percentage Intergovernmental	-366.12	113.34	-.409	-3.23	.002	
MELTINGPOTS						.399
Population	.00	.00	.121	1.616	.109	
Density	-.01	.00	-.419	-3.691	.000	
Growth Rate	-.38	.17	-.190	-2.235	.027	
Median Income	.00	.00	.367	2.633	.010	
Home Ownership	-2.90	1.04	-.371	-2.779	.006	
Children	5.79	2.95	.274	1.962	.052	
Elderly	11.89	3.92	.331	3.036	.003	
Black	-.30	.73	-.042	-.411	.682	
Hispanic	.84	.67	.178	1.256	.212	
Percentage Intergovernmental	-284.72	73.86	-.355	-3.855	.000	
BOOMTOWNS						.113
Population	.00	.00	.143	1.133	.262	
Density	-.02	.02	-.082	-.636	.527	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Growth Rate	.07	.09	.091	.732	.467	
Median Income	.00	.00	.092	.549	.585	
Home Ownership	-3.89	2.95	-.193	-1.319	.192	
Children	-3.83	9.47	-.076	-.405	.687	
Elderly	-.84	8.82	-.020	-.096	.924	
Black	-2.80	2.53	-.136	-1.106	.273	
Hispanic	2.52	2.71	.137	.930	.356	
Percentage Intergovernmental	-705.66	251.25	-.339	-2.809	.007	
CENTERVILLES						.344
Population	.00	.00	.086	.649	.519	
Density	-.08	.02	-.477	-3.738	.001	
Growth Rate	-.59	1.04	-.093	-.567	.573	
Median Income	.00	.01	.087	.554	.582	
Home Ownership	-2.08	4.80	-.096	-.433	.667	
Children	10.81	8.27	.247	1.307	.198	
Elderly	-12.67	8.80	-.264	-1.439	.157	
Black	-5.39	2.07	-.422	-2.601	.012	
Hispanic	.16	2.00	.013	.079	.938	
Percentage Intergovernmental	-493.62	166.70	-.344	-2.961	.005	
MEGA-METRO CENTERS						.116
Population	7.70E-005	.00	.350	.774	.449	
Density	-.01	.04	-.169	-.251	.804	
Growth Rate	-1.56	2.59	-.160	-.603	.554	
Median Income	.01	.012	.303	1.065	.301	
Home Ownership	9.18	15.18	.257	.605	.553	
Children	-82.07	44.35	-1.011	-1.851	.081	
Elderly	15.98	49.10	.106	.326	.749	
Black	15.39	7.23	.971	2.129	.047	
Hispanic	13.81	6.61	.790	2.091	.051	
Percentage Intergovernmental	-704.76	788.51	-.323	-.894	.383	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the

Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Findings for cities based upon form of government are found in Table 5.22. It shows that manager cities have seven significant variables compared to non-manager cities' four. The model accounts for around 20% of the variation in sales tax revenue for both type cities.

Table 5.22. Sales Tax Revenue Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.179
Population	9.83E-005	.00	.076	1.913	.056	
Density	-.01	.00	-.175	-3.287	.001	
Growth Rate	.02	.06	.013	.309	.757	
Median Income	.00	.00	.217	3.814	.000	
Home Ownership	-3.83	.91	-.283	-4.219	.000	
Children	-4.55	2.27	-.132	-2.000	.046	
Elderly	2.61	1.91	.075	1.371	.171	
Black	-1.63	.58	-.128	-2.804	.005	
Hispanic	-1.39	.57	.159	2.453	.014	
Percentage Intergovernmental	-393.49	61.92	-.257	-6.355	.000	
NON-MANAGER[a]						.209
Population	5.97E-005	.00	.172	2.848	.005	
Density	-.00	.00	-.100	-1.212	.227	
Growth Rate	.71	.30	.162	2.321	.021	
Median Income	.00	.00	.028	.349	.728	
Home Ownership	-2.71	1.58	-.158	-1.723	.086	
Children	-3.38	4.53	-.061	-.744	.457	
Elderly	3.24	4.51	.050	.719	.473	
Black	2.95	.80	.282	3.702	.000	
Hispanic	1.61	1.14	.110	1.415	.158	
Percentage Intergovernmental	-440.58	88.71	-.338	-4.967	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]Mayor and commission cities were combined as non-manager cities.

Table 5.23 sets out regression results for metro status. Sales tax revenue is best predicted for suburbs. Percentage of intergovernmental revenue is the largest predictor for both central cities and suburbs, while density is the only significant indicator in independent cities.

Table 5.23. Sales Tax Revenue Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.188
Population	4.98E-005	.00	.127	2.303	.022	
Density	-.01	.01	-.072	-1.039	.300	
Growth Rate	-.34	.20	-.088	-1.711	.088	
Median Income	.01	.00	.219	3.648	.000	
Home Ownership	-1.06	1.58	-.050	-.670	.503	
Children	-7.86	3.19	-.170	-2.467	.014	
Elderly	2.84	3.17	.055	.896	.371	
Black	1.92	.64	.169	2.993	.003	
Hispanic	3.10	.78	.262	3.946	.000	
Percentage Intergovernmental	-428.90	69.31	-.323	-6.188	.000	
SUBURB						.238
Population	.00	.00	.099	2.039	.042	
Density	-.00	.00	-.090	-1.270	.205	
Growth Rate	.10	.06	.083	1.633	.103	
Median Income	.00	.00	.147	2.307	.022	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Home Ownership	-3.52	.91	-.296	-3.854	.000	
Children	-4.22	3.23	-.117	-1.306	.192	
Elderly	.33	2.53	.010	.129	.898	
Black	-.68	.70	-.053	-.960	.338	
Hispanic	.73	.70	.086	1.047	.296	
Percentage Intergovernmental	-620.26	80.65	-.406	-7.691	.000	
INDEPENDENT						.122
Population	-.00	.00	-.085	-.621	.537	
Density	-.07	.03	-.304	-2.229	.030	
Growth Rate	.33	.55	.082	.595	.554	
Median Income	.01	.01	.175	1.023	.311	
Home Ownership	.29	4.79	.015	.061	.952	
Children	-7.32	7.79	-.196	-.939	.352	
Elderly	.84	9.36	.018	.090	.929	
Black	-1.58	2.22	-.128	-.714	.478	
Hispanic	3.34	2.16	.248	1.548	.128	
Percentage Intergovernmental	-360.83	181.28	-.248	-1.990	.052	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.24 reveals that the principal city model predicts differences in sales tax revenue slightly better for non-principal cities. The major predictors in these cities are percentage intergovernmental revenue, home ownership, and density – all of which have a negative impact upon sales tax revenue. In principal cities, percentage intergovernmental revenue and median income are the strongest indicators, with the former having a negative and the latter a positive influence.

Table 5.24. Sales Tax Revenue Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.162
Population	4.41E-005	.00	.107	2.240	.026	
Density	-.00	.00	-.048	-.778	.437	
Growth Rate	-.01	.15	-.002	-.045	.964	
Median Income	.00	.00	.240	3.982	.000	
Home Ownership	-1.83	1.36	-.097	-1.347	.179	
Children	-7.95	3.08	-.176	-2.584	.010	
Elderly	2.84	2.87	.059	.992	.322	
Black	1.93	.66	.162	2.915	.004	
Hispanic	2.50	.76	.218	3.307	.001	
Percentage Intergovernmental	-427.02	74.70	-.293	-5.716	.000	
NON-PRINCIPAL						.215
Population	.00	.00	.076	1.491	.137	
Density	-.01	.00	-.223	-3.411	.001	
Growth Rate	.04	.07	.033	.632	.528	
Median Income	.00	.00	.145	2.213	.028	
Home Ownership	-3.60	.93	-.298	-3.888	.000	
Children	-.05	2.69	-.001	-.017	.987	
Elderly	2.69	2.26	.077	1.187	.236	
Black	-.77	.60	-.071	-1.283	.200	
Hispanic	1.16	.67	.136	1.730	.085	
Percentage Intergovernmental	-505.70	62.16	-.395	-8.135	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Intergovernmental Revenue for Different City Types

The results of multiple-regression analysis on intergovernmental revenue for NLC typology cities are shown in Table 5.25. The adjusted R^2 values for the different categories of cities are the highest for intergovernmental revenue than for any other financial output tested. However, the variable percentage of intergovernmental revenue is highly correlated with this output and accounts for the high values. The Beta weight for this variable is very high relative to the other statistically significant variables in all categories except Mega-metro where the value for percent Black and children are higher. Spread cities have the greatest number of statistically significant variables and Boomtowns have the lowest.

Table 5.25. Intergovernmental Revenue Regressed on Demographic Variables for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
SPREAD						.619
Population	.00	.00	.039	1.191	.234	
Density	-.04	.01	-.169	-4.816	.000	
Growth Rate	-.41	.46	-.035	-.892	.373	
Median Income	.01	.00	.160	3.514	.000	
Home Ownership	-9.98	1.85	-.275	-5.383	.000	
Children	1.51	4.14	.016	.364	.716	
Elderly	14.51	3.95	.145	3.674	.000	
Black	-.62	.86	-.030	-.720	.472	
Hispanic	3.31	1.66	.079	2.001	.046	
Percentage Intergovernmental	2,053.96	100.19	.750	20.500	.000	
GOLD COAST						.518
Population	.00	.00	.040	.713	.477	
Density	-.01	.00	-.141	-2.385	.018	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Growth Rate	-.61	.25	-.136	-2.402	.017	
Median Income	.00	.00	.013	.209	.834	
Home Ownership	-3.68	1.04	-.292	-3.554	.000	
Children	-7.87	4.05	-.176	-1.940	.054	
Elderly	2.00	2.49	.066	.802	.424	
Black	-.70	1.12	-.035	-.631	.529	
Hispanic	.33	1.03	.018	.319	.750	
Percentage Intergovernmental	1,261.69	99.75	.705	12.649	.000	
METRO CENTERS						.875
Population	-.00	.00	-.094	-2.092	.040	
Density	.00	.02	.005	.073	.942	
Growth Rate	-3.08	1.20	-.154	-2.563	.013	
Median Income	.01	.01	.098	1.266	.210	
Home Ownership	-4.86	6.71	-.057	-.724	.472	
Children	12.31	16.57	.043	.743	.460	
Elderly	-19.25	23.99	-.051	-.802	.425	
Black	2.22	2.53	.050	.877	.383	
Hispanic	.64	3.60	.011	.177	.860	
Percentage Intergovernmental	3,686.51	218.91	.853	16.840	.000	
MELTINGPOTS						.607
Population	.00	.00	.026	.445	.657	
Density	.00	.01	.014	.153	.879	
Growth Rate	.16	.59	.018	.265	.791	
Median Income	-.01	.01	-.142	-1.301	.196	
Home Ownership	-.14	3.61	-.004	-.037	.970	
Children	-31.13	10.25	-.339	-3.037	.003	
Elderly	-15.67	13.55	-.100	-1.157	.250	
Black	-1.14	2.36	-.038	-.482	.631	
Hispanic	.27	2.27	.013	.118	.906	
Percentage Intergovernmental	2,148.31	247.90	.657	8.666	.000	
BOOMTOWNS						.377
Population	-7.23E-005	.00	-.019	-.179	.858	
Density	-.01	.02	-.059	-.565	.574	
Growth Rate	-.01	.07	-.010	-.098	.922	
Median Income	.00	.00	.199	1.422	.160	
Home Ownership	-2.08	2.18	-.115	-.952	.344	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Children	-.16	7.19	-.003	-.022	.983	
Elderly	4.30	6.69	.110	.643	.522	
Black	-.36	1.91	-.019	-.191	.849	
Hispanic	1.93	2.07	.115	.931	.355	
Percentage Intergovernmental	1,279.34	181.87	.695	7.034	.000	
CENTERVILLES						.517
Population	-.00	.00	-.015	-.147	.884	
Density	-.05	.03	-.200	-2.030	.047	
Growth Rate	-.99	1.25	-.102	-.791	.432	
Median Income	.02	.01	.476	3.913	.000	
Home Ownership	-2.64	5.50	-.081	-.481	.632	
Children	-5.64	10.04	-.082	-.562	.577	
Elderly	-1.45	10.51	-.020	-.138	.891	
Black	3.20	2.45	.163	1.307	.196	
Hispanic	-.11	2.46	-.006	-.046	.964	
Percentage Intergovernmental	1,269.44	199.48	.583	6.364	.000	
MEGA-METRO CENTERS						.765
Population	.00	.00	.255	1.141	.268	
Density	-.01	.06	-.057	-.168	.868	
Growth Rate	.67	3.89	.023	.173	.864	
Median Income	.01	.02	.106	.726	.477	
Home Ownership	14.08	20.53	.129	.686	.501	
Children	-170.68	59.46	-.696	-2.871	.010	
Elderly	7.06	75.30	.015	.094	.926	
Black	37.36	9.66	.772	3.865	.001	
Hispanic	24.16	9.39	.451	2.573	.019	
Percentage Intergovernmental	3,289.99	1,190.73	.519	2.763	.012	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Regression results for intergovernmental revenue for cities with managers and those without are shown in Table 5.26. With the exception of the variable percentage intergovernmental revenue, the factors tested exhibit low predictive power.

Table 5.26. Intergovernmental Revenue Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.549
Population	.00	.00	.056	1.985	.048	
Density	-.01	.00	-.120	-3.249	.001	
Growth Rate	.04	.08	.013	.437	.662	
Median Income	.00	.00	.092	2.320	.021	
Home Ownership	-5.42	1.13	-.227	-4.810	.000	
Children	-1.80	2.83	-.029	-.635	.525	
Elderly	3.91	2.38	.061	1.643	.101	
Black	1.87	.72	.084	2.615	.009	
Hispanic	-1.28	.73	-.080	-1.751	.080	
Percentage Intergovernmental	1,919.76	78.04	.705	24.601	.000	
NON-MANAGER[a]						.645
Population	.00	.00	.173	4.919	.000	
Density	-.00	.01	-.036	-.738	.461	
Growth Rate	.34	.57	.025	.605	.546	
Median Income	.01	.00	.109	2.341	.020	
Home Ownership	-9.17	2.62	-.190	-3.500	.001	
Children	-6.41	8.22	-.037	-.779	.436	
Elderly	7.25	8.18	.038	.886	.376	
Black	2.58	1.41	.080	1.833	.068	
Hispanic	1.29	2.06	.030	.624	.533	
Percentage Intergovernmental	2,870.17	159.04	.721	18.046	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for

demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]Mayor and commission cities were combined as non-manager cities.

Table 5.27 also shows that the demographic variables, with the exception of percentage intergovernmental revenue, account for low variation in both central cities and suburbs. In independent cities, however, median income has nearly as much influence.

Table 5.27. Intergovernmental Revenue Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.671
Population	.00	.00	.086	2.674	.008	
Density	.02	.01	.101	2.594	.010	
Growth Rate	-.15	.35	-.013	-.426	.671	
Median Income	.01	.00	.110	3.219	.001	
Home Ownership	-4.74	2.52	-.082	-1.882	.061	
Children	-7.08	5.27	-.054	-1.343	.180	
Elderly	5.90	5.32	.039	1.108	.269	
Black	4.22	1.11	.126	3.817	.000	
Hispanic	1.43	1.37	.040	1.045	.297	
Percentage Intergovernmental	2,772.56	118.77	.725	23.345	.000	
SUBURB						.604
Population	.00	.00	.083	2.536	.012	
Density	.00	.00	.068	1.420	.156	
Growth Rate	.13	.08	.056	1.654	.099	
Median Income	.00	.00	.027	.637	.524	
Home Ownership	-4.67	1.05	-.230	-4.457	.000	
Children	-4.89	3.84	-.076	-1.274	.204	
Elderly	2.01	2.98	.034	.673	.501	
Black	-.97	.75	-.047	-1.297	.195	
Hispanic	-2.28	.81	-.155	-2.801	.005	
Percentage Intergovernmental	1,774.84	91.02	.697	19.499	.000	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
INDEPENDENT						.492
Population	.00	.00	.006	.059	.954	
Density	-.03	.03	-.125	-1.325	.190	
Growth Rate	-.13	.50	-.026	-.260	.796	
Median Income	.02	.00	.512	4.317	.000	
Home Ownership	3.65	4.16	.153	.878	.384	
Children	-13.17	7.06	-.272	-1.867	.067	
Elderly	-6.57	8.20	-.112	-.802	.426	
Black	2.69	1.95	.172	1.381	.172	
Hispanic	1.64	1.97	.095	.832	.408	
Percentage Intergovernmental	973.99	161.20	.536	6.042	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.28 reveals that the variables other than percentage intergovernmental revenue have little effect on predicting total intergovernmental revenue in principal and non-principal cities. The strongest indicator is home ownership in non-principal cities (Beta = -.338).

Table 5.28. Intergovernmental Revenue Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.657
Population	.00	.00	.125	4.364	.000	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Density	.02	.01	.100	2.788	.006	
Growth Rate	.22	.24	.027	.901	.368	
Median Income	.00	.00	.088	2.481	.013	
Home Ownership	-3.41	2.04	-.072	-1.673	.095	
Children	-9.84	4.75	-.084	-2.071	.039	
Elderly	2.84	4.45	.022	.638	.524	
Black	5.27	1.04	.167	5.043	.000	
Hispanic	.50	1.21	.016	.417	.677	
Percentage Intergovernmental	2,639.90	116.88	.696	22.587	.000	
NON-PRINCIPAL						.612
Population	.00	.00	.076	2.297	.022	
Density	-.01	.00	-.139	-3.290	.001	
Growth Rate	.03	.11	.008	.240	.811	
Median Income	.00	.00	.099	2.397	.017	
Home Ownership	-9.13	1.32	-.338	-6.902	.000	
Children	3.62	4.01	.044	.904	.367	
Elderly	8.43	3.37	.104	2.497	.013	
Black	-1.83	.85	-.075	-2.151	.032	
Hispanic	-1.95	.99	-.099	-1.964	.050	
Percentage Intergovernmental	2,113.91	91.37	.741	23.136	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Total Debt for Different City Types

Multiple-regression analyses on total debt shows the demographic variables have the lowest explanatory power for this fiscal output than for another other in each of the classification schemes. The findings for cities within the NLC typology are shown in

Table 5.29. The highest adjusted R^2 value is exhibited in the regression on Mega-metro centers where it is .248. The most significant variables shown for any group of cities are three. Spread and Gold coast cities, Metro centers, and Centervilles have only one apiece.

Table 5.29. Total Debt Regressed on Demographic Variables
for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
SPREAD						.015
Population	.00	.00	.060	1.116	.265	
Density	-.15	.06	-.151	-2.653	.008	
Growth Rate	.45	3.45	.008	.129	.897	
Median Income	-.00	.02	-.017	-.238	.812	
Home Ownership	-12.87	13.77	-.076	-.935	.350	
Children	-23.75	30.95	-.055	-.767	.443	
Elderly	9.05	29.32	.020	.309	.758	
Black	-.13	6.42	-.001	-.020	.984	
Hispanic	6.75	12.26	.035	.550	.582	
Percentage Intergovernmental	-584.32	741.28	-.047	-.788	.431	
						.057
GOLD COAST						
Population	.00	.00	.057	.715	.476	
Density	-.08	.06	-.105	-1.264	.208	
Growth Rate	1.06	3.65	.023	.291	.771	
Median Income	-.01	.01	-.117	-1.377	.170	
Home Ownership	-14.51	14.76	-.114	-.984	.327	
Children	-4.98	57.68	-.011	-.086	.931	
Elderly	-27.78	35.35	-.091	-.786	.433	
Black	-15.54	15.82	-.076	-.982	.327	
Hispanic	-6.14	14.64	-.033	-.419	.676	
Percentage Intergovernmental	-3,895.97	1,428.68	-.215	-2.727	.007	
METRO CENTERS						.103
Population	.00	.00	.239	1.988	.051	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Density	-.06	.12	-.085	-.465	.644	
Growth Rate	-22.28	6.90	-.520	-3.230	.002	
Median Income	.09	.05	.373	1.804	.076	
Home Ownership	-16.29	38.58	-.089	-.422	.674	
Children	64.17	95.20	.105	.674	.503	
Elderly	-19.20	137.87	-.024	-.139	.890	
Black	20.43	14.56	.214	1.403	.165	
Hispanic	7.56	20.67	.060	.366	.716	
Percentage Intergovernmental	-443.45	1,257.97	-.048	-.353	.726	
MELTINGPOTS						.118
Population	.00	.00	.006	.071	.943	
Density	-.04	.02	-.251	-1.770	.079	
Growth Rate	6.77	2.19	.316	3.100	.002	
Median Income	-.01	.02	-.051	-.314	.754	
Home Ownership	4.32	13.34	.053	.324	.747	
Children	-135.02	37.87	-.596	-3.565	.001	
Elderly	-80.54	50.19	-.209	-1.604	.111	
Black	13.33	8.72	.183	1.528	.129	
Hispanic	21.34	8.38	.425	2.545	.012	
Percentage Intergovernmental	-401.88	916.38	-.050	-.439	.662	
BOOMTOWNS						.096
Population	.00	.00	.014	.113	.910	
Density	-.32	.15	-.271	-2.136	.036	
Growth Rate	.20	.61	.039	.319	.751	
Median Income	.04	.02	.365	2.164	.034	
Home Ownership	-15.69	19.24	-.119	-.815	.418	
Children	-60.18	63.49	-.174	-.948	.347	
Elderly	16.66	59.07	.058	.282	.779	
Black	-19.71	16.86	-.140	-1.169	.247	
Hispanic	46.53	18.27	.380	2.547	.013	
Percentage Intergovernmental	-1,474.80	1,605.87	-.109	-.918	.362	
CENTERVILLES						.107
Population	.00	.02	.028	.196	.845	
Density	-.11	.10	-.149	-1.104	.275	
Growth Rate	11.40	5.30	.409	2.149	.036	
Median Income	.02	.02	.115	.693	.491	
Home Ownership	-1.27	21.62	-.013	-.059	.953	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
Children	-76.35	41.00	-.385	-1.862	.068	
Elderly	36.01	46.57	.157	.773	.443	
Black	10.23	9.70	.180	1.055	.296	
Hispanic	-2.61	9.82	-.049	-.266	.792	
Percentage Intergovernmental	943.47	798.70	.148	1.181	.242	
MEGA-METRO CENTERS						.248
Population	.00	.00	.313	.784	.443	
Density	.12	.28	.258	.424	.677	
Growth Rate	.75	18.01	.010	.042	.967	
Median Income	.03	.08	.096	.366	.719	
Home Ownership	144.98	95.08	.513	1.525	.144	
Children	-720.45	275.36	-1.135	-2.616	.017	
Elderly	-346.92	348.72	-.289	-.995	.332	
Black	100.15	44.76	.800	2.238	.037	
Hispanic	64.36	43.49	.464	1.480	.155	
Percentage Intergovernmental	-4,349.58	5,514.51	-.265	-.789	.440	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Tables 5.30 through 5.32 set out the findings for regressions on total debt for cities based on form of government, metro status, and principal city status. As with the NLC typology groups, the regressions for these categories all show low adjusted R^2 values and have relatively few statistically significant variables. The variable population is the most commonly occurring in terms of statistical significance being shown significant in all regressions except the one for independent cities.

Table 5.30. Total Debt Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.076
Population	.00	.00	.199	4.956	.000	
Density	-.08	.03	-.136	-2.549	.011	
Growth Rate	.63	.62	.042	1.007	.314	
Median Income	.00	.01	.022	.380	.704	
Home Ownership	-12.26	8.75	-.095	-1.401	.162	
Children	-24.57	21.88	-.074	-1.123	.262	
Elderly	-10.93	18.49	-.032	-.591	.555	
Black	9.92	5.54	.083	1.791	.074	
Hispanic	1.47	5.66	.017	.259	.795	
Percentage Intergovernmental	-1,204.32	607.563	-.082	-1.982	.048	
NON-MANAGER[a]						.173
Population	.00	.00	.356	6.554	.000	
Density	-.05	.03	-.154	-2.055	.041	
Growth Rate	.98	2.43	.025	.403	.687	
Median Income	.01	.01	.044	.597	.551	
Home Ownership	-11.78	11.15	-.088	-1.056	.292	
Children	-111.95	36.04	-.226	-3.107	.002	
Elderly	-54.38	35.21	-.102	-1.545	.123	
Black	14.98	5.97	.166	2.511	.013	
Hispanic	7.99	8.71	.067	.917	.360	
Percentage Intergovernmental	305.35	672.50	.028	.454	.650	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

[a]Mayor and commission cities were combined as non-manager cities.

Table 5.31. Total Debt Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.134
Population	.00	.00	.285	5.455	.000	
Density	-.01	.04	-.013	-.207	.836	
Growth Rate	.40	1.75	.011	.229	.819	
Median Income	.03	.01	.142	2.564	.011	
Home Ownership	5.80	12.58	.033	.461	.645	
Children	-84.14	26.32	-.209	-3.197	.001	
Elderly	-3.79	26.77	-.008	-.142	.887	
Black	23.46	5.53	.228	4.244	.000	
Hispanic	10.82	6.83	.100	1.584	.114	
Percentage Intergovernmental	-15.68	594.80	-.001	-.026	.979	
SUBURB						.080
Population	.00	.00	.119	2.360	.019	
Density	-.03	.02	-.140	-1.898	.058	
Growth Rate	.95	.47	.105	2.009	.045	
Median Income	.01	.01	.085	1.328	.185	
Home Ownership	-12.95	6.46	-.158	-2.006	.046	
Children	-41.56	24.55	-.160	-1.693	.091	
Elderly	-33.05	18.93	-.138	-1.747	.082	
Black	1.77	4.69	.021	.377	.706	
Hispanic	4.45	4.99	.076	.891	.374	
Percentage Intergovernmental	-1,283.37	558.35	-.127	-2.299	.022	
INDEPENDENT						-.022
Population	.03	.04	.089	.642	.524	
Density	-.38	.43	-.120	-.895	.374	
Growth Rate	2.19	8.36	.037	.262	.794	
Median Income	-.05	.07	-.122	-.724	.472	
Home Ownership	107.69	69.44	.383	1.551	.126	
Children	-35.62	117.67	-.063	-.303	.763	
Elderly	-250.59	136.75	-.364	-1.833	.072	
Black	-11.89	32.46	-.065	-.366	.715	
Hispanic	4.69	32.78	-.023	-.143	.887	
Percentage Intergovernmental	-3,679.29	2,688.75	-.172	-1.368	.176	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.32. Total Debt Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.088
Population	.00	.00	.248	5.290	.000	
Density	-.01	.03	-.018	-.308	.758	
Growth Rate	.91	1.54	.029	.590	.555	
Median Income	.00	.01	.008	.129	.897	
Home Ownership	8.01	12.85	.044	.624	.533	
Children	-70.55	29.92	-.157	-2.358	.019	
Elderly	-50.06	28.04	-.101	-1.785	.075	
Black	23.38	6.58	.192	3.550	.000	
Hispanic	6.13	7.60	.051	.806	.421	
Percentage Intergovernmental	-799.06	737.43	-.055	-1.084	.279	
NON-PRINCIPAL						.053
Population	.00	.00	.114	2.187	.029	
Density	-.06	.02	-.234	-3.502	.001	
Growth Rate	.69	.48	.074	1.414	.158	
Median Income	.01	.01	.113	1.730	.084	
Home Ownership	-18.77	6.13	-.234	-3.062	.002	
Children	-20.69	18.92	-.084	-1.093	.275	
Elderly	-5.74	15.93	-.024	-.360	.719	
Black	-2.53	3.98	-.034	-.635	.525	
Hispanic	2.90	4.58	.050	.632	.528	
Percentage Intergovernmental	-281.12	422.82	-.034	-.665	.506	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.

Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Full Faith and Credit Debt for Different City Types

Table 5.33 contains the findings of regressions on full faith and credit debt for the categories of cities in the NLC typology. Metro centers, Centervilles, and Mega-metro centers have the largest adjusted R^2 values between 20 – 29%. All the categories except Spread cities and Centervilles show only one (but not the same) significant variable.

Table 5.33. Full Faith and Credit Debt Regressed on Demographic Variables for City Types Within the National Leagues of Cities' Typology

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
SPREAD						.091
Population	.00	.00	.044	.773	.440	
Density	-.02	.02	-.058	-.982	.327	
Growth Rate	-1.07	1.35	-.053	-.790	.430	
Median Income	.02	.01	.166	2.203	.028	
Home Ownership	-13.11	5.15	-.215	-2.545	.011	
Children	-9.63	12.25	-.058	-.786	.432	
Elderly	6.64	11.79	.038	.563	.574	
Black	-.82	2.46	-.022	-.333	.739	
Hispanic	4.14	4.75	.059	.871	.384	
Percentage Intergovernmental	1,148.17	283.87	.256	4.045	.000	
GOLD COAST						.031
Population	-.00	.00	-.033	-.361	.719	
Density	-.01	.04	-.029	-.299	.765	
Growth Rate	.64	2.33	.024	.273	.785	
Median Income	.01	.01	.101	1.057	.292	
Home Ownership	-27.10	9.45	-.362	-2.867	.005	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
Children	36.06	38.72	.134	.931	.353	
Elderly	17.78	23.33	.099	.762	.447	
Black	-4.33	12.10	-.032	-.358	.721	
Hispanic	8.06	10.51	.069	.767	.445	
Percentage Intergovernmental	-373.96	938.65	-.035	-.398	.691	
METRO CENTERS						.288
Population	.00	.00	-.017	-.153	.879	
Density	-.04	.06	-.101	-.606	.547	
Growth Rate	-4.54	3.50	-.190	-1.298	.199	
Median Income	.02	.03	.137	.728	.469	
Home Ownership	9.25	19.60	.090	.472	.638	
Children	-36.44	48.49	-.105	-.752	.455	
Elderly	-47.39	69.84	-.104	-.679	.500	
Black	9.69	7.36	.181	1.317	.192	
Hispanic	-1.54	10.61	-.022	-.145	.885	
Percentage Intergovernmental	3,051.70	636.63	.587	4.794	.000	
MELTINGPOTS						.036
Population	-.00	.00	-.138	-1.272	.207	
Density	-.02	.01	-.194	-1.144	.256	
Growth Rate	.54	1.92	.035	.283	.778	
Median Income	-.01	.01	-.145	-.787	.433	
Home Ownership	5.40	8.66	.119	.624	.534	
Children	-71.85	25.45	-.588	-2.823	.006	
Elderly	-51.34	33.87	-.236	-1.516	.133	
Black	1.08	5.70	.027	.190	.850	
Hispanic	7.01	5.48	.251	1.280	.204	
Percentage Intergovernmental	756.67	568.79	.178	1.330	.187	
BOOMTOWNS						.135
Population	.00	.00	.017	.117	.907	
Density	-.15	.08	-.263	-1.848	.071	
Growth Rate	-.39	.56	-.106	-.692	.493	
Median Income	.03	.01	.623	2.916	.005	
Home Ownership	-11.91	9.70	-.212	-1.228	.226	
Children	-21.46	33.01	-.131	-.650	.519	
Elderly	22.70	31.91	.183	.711	.480	
Black	8.83	8.62	.133	1.024	.311	

Variable	Unstandardized Coefficients		Standardized Coefficients			Adj'd R^2
	B	Std. error	Beta	*t* score	Sig.	
Hispanic	14.42	9.21	.251	1.566	.124	
Percentage Intergovernmental	425.19	802.26	.073	.530	.599	
CENTERVILLES						.256
Population	.01	.01	.182	1.218	.230	
Density	-.03	.07	-.057	-.397	.693	
Growth Rate	-.06	3.32	-.003	-.018	.985	
Median Income	.04	.01	.456	2.551	.014	
Home Ownership	-31.94	13.88	-.539	-2.301	.026	
Children	-10.65	25.58	-.084	-.416	.679	
Elderly	29.00	31.71	.199	.915	.365	
Black	-5.04	6.29	-.145	-.801	.427	
Hispanic	-3.53	6.11	-.101	-.578	.566	
Percentage Intergovernmental	2,128.23	679.43	.458	3.132	.003	
MEGA-METRO CENTERS						.199
Population	.00	.00	.406	.984	.337	
Density	.00	.15	.011	.018	.986	
Growth Rate	8.78	9.55	.225	.920	.369	
Median Income	.04	.05	.264	.977	.341	
Home Ownership	14.56	50.40	.100	.289	.776	
Children	-197.39	145.95	-.605	-1.352	.192	
Elderly	-10.95	184.83	-.018	-.059	.953	
Black	55.78	23.72	.867	2.351	.030	
Hispanic	16.57	23.05	.233	.719	.481	
Percentage Intergovernmental	-283.12	2,922.91	-.034	-.097	.924	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Tables 5.34 through 5.36 show the results of regressions on full faith and credit debt for cities grouped based on their form of government, metro status, and principal city status. These findings also show the models to have low predictive value for this fiscal output measure. Median income was the only variable shown as statistically significant in all the categories in these last three classification schemes. In the regressions of NLC typology cities, it was only significant in Spread cities, Boomtown, and Centervilles.

Table 5.34. Full Faith and Credit Debt Regressed on Demographic Variables for City Types Based on Form of Government

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
MANAGER						.066
Population	6.68E-005	.00	.012	.273	.785	
Density	-.03	.02	-.134	-2.194	.029	
Growth Rate	.39	.43	.043	.897	.370	
Median Income	.01	.00	.264	4.100	.000	
Home Ownership	-15.42	4.49	-.271	-3.438	.001	
Children	-10.65	11.20	-.070	-.951	.342	
Elderly	.26	9.36	.002	.028	.978	
Black	.47	2.81	.009	.169	.866	
Hispanic	.48	2.92	.012	.165	.869	
Percentage Intergovernmental	1,358.57	307.25	.207	4.422	.000	
NON-MANAGER[a]						.207
Population	.00	.00	.276	4.901	.000	
Density	-.02	.01	-.131	-1.692	.092	
Growth Rate	-.18	1.23	-.009	-.147	.884	
Median Income	.02	.01	.228	3.007	.003	
Home Ownership	-11.83	5.48	-.186	-2.160	.032	
Children	-30.97	18.52	-.127	-1.672	.096	
Elderly	.52	18.05	.002	.029	.977	
Black	8.44	3.01	.191	2.803	.005	
Hispanic	3.45	4.26	.062	.810	.418	
Percentage Intergovernmental	1,450.89	336.10	.275	4.317	.000	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.
[a]Mayor and commission cities were combined as non-manager cities.

Table 5.35. Full Faith and Credit Debt Regressed on Demographic Variables for City Types Based on Metro Status

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
CENTRAL						.236
Population	.00	.00	.171	3.245	.001	
Density	.01	.02	.041	.640	.523	
Growth Rate	.28	.92	.016	.307	.759	
Median Income	.03	.01	.263	4.576	.000	
Home Ownership	-2.53	6.15	-.030	-.411	.681	
Children	-29.24	12.86	-.149	-2.274	.024	
Elderly	9.72	13.24	.042	.734	.463	
Black	8.12	2.69	.160	3.016	.003	
Hispanic	2.01	3.42	.037	.589	.556	
Percentage Intergovernmental	1,977.71	291.43	.352	6.786	.000	
SUBURB						.036
Population	.00	.00	-.026	-.449	.654	
Density	-.02	.01	-.106	-1.224	.222	
Growth Rate	.19	.47	.025	.407	.684	
Median Income	.01	.00	.234	3.183	.002	
Home Ownership	-13.98	4.40	-.295	-3.175	.002	
Children	-10.63	17.92	-.065	-.593	.553	
Elderly	-5.49	13.37	-.038	-.411	.681	
Black	1.88	3.29	.037	.573	.567	
Hispanic	1.20	3.50	.035	.342	.733	
Percentage Intergovernmental	259.48	372.92	.044	.696	.487	

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
INDEPENDENT						.178
Population	.01	.01	.131	.949	.347	
Density	.10	.09	.157	1.152	.255	
Growth Rate	.93	1.50	.088	.619	.539	
Median Income	.04	.01	.505	2.863	.006	
Home Ownership	-5.03	12.64	-.089	-.398	.692	
Children	-60.13	22.36	-.485	-2.690	.010	
Elderly	4.88	26.33	.037	.185	.854	
Black	4.36	6.01	.128	.724	.472	
Hispanic	8.08	6.00	.211	1.347	.184	
Percentage Intergovernmental	519.21	655.01	.111	.793	.432	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.36. Full Faith and Credit Debt Regressed on Demographic Variables for City Types Based on Principal City Status

Variable	Unstandardized Coefficients B	Unstandardized Coefficients Std. error	Standardized Coefficients Beta	*t* score	Sig.	Adj'd R^2
PRINCIPAL						.191
Population	.00	.00	.218	4.538	.000	
Density	-.01	.01	-.034	-.557	.578	
Growth Rate	.69	.66	.053	1.045	.297	
Median Income	.01	.00	.145	2.396	.017	
Home Ownership	-2.19	5.38	-.030	-.408	.684	
Children	-33.96	12.66	-.180	-2.684	.008	
Elderly	-13.94	12.04	-.068	-1.158	.248	
Black	8.46	2.69	.173	3.151	.002	
Hispanic	2.06	3.21	.041	.640	.522	
Percentage Intergovernmental	1,870.94	301.55	.323	6.204	.000	

Variable	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. error	Beta	*t* score	Sig.	Adj'd R^2
NON-PRINCIPAL						
Population	.00	.00	-.018	-.314	.754	.074
Density	-.03	.01	-.156	-2.116	.035	
Growth Rate	.27	.54	.030	.500	.617	
Median Income	.01	.00	.309	4.409	.000	
Home Ownership	-18.84	4.37	-.369	-4.315	.000	
Children	-4.13	13.75	-.025	-.300	.764	
Elderly	8.99	11.39	.057	.790	.430	
Black	-1.33	2.94	-.027	-.454	.650	
Hispanic	1.19	3.34	.032	.356	.722	
Percentage Intergovernmental	827.96	308.75	.152	2.682	.008	

Note: Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients are expressed in per capita dollar amounts. Shaded rows show statistical significance.
Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Data Source for demographic data: U.S. Bureau of the Census, 2000 Decennial Census, Washington, DC: U.S. Department of Commerce, 2000. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Summary of the Analysis of Demographic Variables

The multiple-regression testing discussed shows that the categories within each classification scheme differ in terms of the extent to which the demographic variables are able to explain variation in the dependent variables. It appears, however, that the NLC typology categories tend to have higher adjusted R^2 values for most of the models examined, which supports the hypothesis that NLC categorizations are better for studying the financial behavior of cities. As noted previously, the NLC typology also has more categories with which to segregate cities.

To the extent that the adjusted R^2 values can be averaged for comparison purposes, the NLC typology has the highest or next to the highest average adjusted R^2 value on each of the fiscal output measures, with the exception of police spending where the form of government classification has an average adjusted R^2 value of .266, principal city status has an average of .249, and the NLC typology is third with .242.

The typology classification is second in four financial areas. The average adjusted R^2 values for common function expenditure are .160 for form of government cities and .159 for the NLC typology. The principal city classification has an average adjusted R^2 value of .635 and the NLC typology's is .611 for intergovernmental revenue. The form of government classification has an average adjusted R^2 value for total debt of .125 compared to NLC's average of .106. In terms of full faith and credit debt, the metro status categories have an average adjusted R^2 value of .150, whereas the NLC typology's is .148.

In contrast, the NLC classification scheme is the highest in four areas: total expenditure (adjusted R^2 value of .272 to form of government's .235), total revenue (adjusted R^2 value of .285 to metro status' .215), property tax (adjusted R^2 value of .325 to metro status' .317), and sales tax (adjusted R^2 value of .252 to form of government's .194).

These rankings show that the NLC typology has the most predictive capacity in terms of the fiscal variables analyzed. No other classification method has over two financial measures for which it has the highest average adjusted R^2 value. These findings support the hypothesis that the NLC typology provides a better means of comparing cities in terms of financial outputs.

Impact of Revenue Sources on Expenditure and Debt Outputs

In addition to the effect of the demographic variables on the fiscal outputs of cities, there is also an impact caused by revenue sources on the expenditure and debt outputs. These are shown in tables that set out the results of multiple-regression analysis on the expenditure and debt variables using the three revenue sources (property and sales tax and intergovernmental revenues) as explanatory variables. These tables show which of the variables are statistically significant in each regression and the coefficient b values for each of the explanatory variables, along with the adjusted R^2 values for each regression. As noted before, the adjusted R^2 value shows the proportion of change in the dependent variable that can be accounted for by the explanatory variables included in the regression model.

Because the variables included in these regression models are all expressed in terms of per capita dollar amounts, the actual amount of change they predict in the dependent variable can be compared using the coefficient b values rather than Betas. To test the correlation between the independent variables, each of the variables was used as the dependent variable and regressed against the others in separate tests. After performing these procedures, no R^2 value greater than .342 was found in any of the individual regressions and it is concluded that multicollinearity is not a problem.

Table 5.37 shows the results of regression analysis on total expenditure for the NLC typology cities. The amount of variation in total spending that is explained by the revenue sources is shown by the adjusted R^2 values, which are highest for Mega-metro centers, Meltingpot cities, and Metro centers. The remaining city types also have adjusted R^2 values that are higher than typically found in the regressions utilizing demographic variables. All of the revenue variables are statistically significant for all city types, with the exception of property tax revenue which is not significant for Centervilles and Mega-metro centers.

Table 5.37. Total Expenditure Regressed on Revenue Sources for City Types Within the National Leagues of Cities' Typology

Revenue Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Property tax	.70** (.23)	1.41*** (.21)	1.06*** (.27)	2.13*** (.26)	1.26*** (.32)	-.11 (.87)	1.05 (.56)
Sales tax	1.10*** (.25)	2.20*** (.27)	1.66*** (.44)	1.19** (.45)	2.02*** (.27)	1.32* (.50)	2.32*** (.49)
Intergovern-mental	1.37*** (.16)	.89* (.42)	.95*** (.12)	.94*** (.14)	2.24*** (.32)	2.12*** (.51)	1.50*** (.23)
Adjusted R^2	.386	.463	.715	.728	.683	.426	.901

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Mega-metro centers have the largest adjusted R^2 value and total spending for these cities is impacted the most by sales tax revenue. The influence of sales tax revenue is more than twice as much as property tax and 65% more than intergovernmental revenue. Sales tax revenue also has the greatest influence in Gold coast cities and Metro centers. Property tax revenue has the most effect on spending only in Meltingpot cities.

The three remaining city types have their spending influenced most by intergovernmental revenue.

Table 5.38 shows the effects on total spending for manager and non-manager cities. The model better explains spending in non-manager cities. Sales tax revenue has the greatest effect in both type cities, but all variables are significant for both.

Table 5.38. Total Expenditure Regressed on Revenue Sources for City Types Based on Form of Government

Variable	Manager	Non-Manager
Property tax	1.34*** (.18)	1.08*** (.14)
Sales tax	1.67*** (.17)	2.14*** (.21)
Intergovernmental	1.42*** (.12)	1.30*** (.08)
Adjusted R^2	.483	.737

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

The regression findings for cities based on metro status are set out in Table 5.39. All the revenue variables are statistically significant in all city types other than property tax revenue in independent cities. Total spending is more fully explained by the model for central cities, where the adjusted R^2 value is more than twice as large as in the independent cities.

Sales tax revenue has the greatest impact in central cities and suburbs, while intergovernmental revenue has a somewhat larger effect in independent cities. There is not as much variation in the amount of the changes caused by the different revenue sources as is shown in the regressions for the NLC typology categories.

Table 5.39. Total Expenditure Regressed on Revenue Sources for City Types Based on Metro Status

Variable	Central	Suburb	Independent
Property tax	1.25***	1.47***	.34
	(.16)	(.14)	(.60)
Sales tax	1.76***	1.87***	1.78**
	(.18)	(.18)	(.65)
Intergovernmental	1.26***	1.10***	2.07**
	(.08)	(.13)	(.64)
Adjusted R^2	.670	.542	.277

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.40 shows all the revenue variables are statistically significant in regressions based on whether or not a city is a principal city, but non-principal cities have a somewhat larger adjusted R^2 value. The sales tax variable has the greatest impact on spending in both type cities. However, both property tax and intergovernmental revenues predict changes nearly as great as those caused by sales tax revenue. For example, in non-principal cities the impact of a one dollar change in the amount of property tax, sales tax, and intergovernmental revenues result in \$1.17, \$1.53, and \$1.24 increases in the amount of total spending.

Table 5.40. Total Expenditure Regressed on Revenue Sources for City Types Based on Principal City Status

Variable	Principal	Non-Principal
Property tax	1.24*** (.17)	1.17*** (.12)
Sales tax	1.83*** (.20)	1.53*** (.16)
Intergovernmental	1.32*** (.09)	1.24*** (.09)
Adjusted R^2	.587	.649

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.41 depicts the change in expenditures on common functions in NLC typology cities resulting from increases in the level of property tax, sales tax, and intergovernmental revenues. Metro centers and Centervilles show no statistically significant impacts, but the other categories of cities all show the greatest change resulting from sales tax revenue.

Table 5.41. Common Function Expenditure Regressed on Revenue Sources for City Types Within the National Leagues of Cities' Typology

Revenue Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Property tax	-.04 (.07)	.22** (.07)	.16 (.12)	.50*** (.09)	.18 (.17)	.02 (.19)	.17 (.15)
Sales tax	.27*** (.07)	.88*** (.09)	.09 (.19)	.86*** (.16)	.82*** (.14)	.04 (.11)	.43** (.13)
Intergovern-mental	.13** (.05)	.11 (.14)	-.00 (.05)	-.00 (.05)	.59** (.17)	.18 (.11)	.11 (.06)
Adjusted R^2	.058	.385	-.003	.375	.404	.062	.607

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.42 shows that the revenue source variables are all statistically significant except for property tax revenue in non-manager cities. The model predicts the amount of change in common function spending equally well in both type cities. Sales tax revenue has the greatest effect in both categories.

Table 5.42. Common Function Expenditure Regressed on Revenue Sources for City Types Based on Form of Government

Variable	Manager	Non-Manager
Property tax	.33*** (.06)	.07 (.05)

Variable	Manager	Non-Manager
Sales tax	.60***	.52***
	(.06)	(.07)
Intergovernmental	.08*	.10***
	(.04)	(.03)
Adjusted R^2	.244	.248

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.43 shows that the model predicts change in spending best in suburbs, where it is twice as good at explaining variation in common function spending than in central and independent cities. Sales tax revenue has the greatest effect in central cities and suburb, while intergovernmental revenue is slightly stronger in independent cities.

Table 5.43. Common Function Expenditure Regressed on Revenue Sources for City Types Based on Metro Status

Variable	Central	Suburb	Independent
Property tax	.16**	.31***	-.17
	(.05)	(.05)	(.16)
Sales tax	.36***	.83***	.42*
	(.06)	(.07)	(.17)
Intergovernmental	.08**	.08	.46**
	(.03)	(.05)	(.16)
Adjusted R^2	.169	.352	.174

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Metro Status: International City/County Management

Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Similar results are found for principal and non-principal cities (See Table 5.44). Both have about equal adjusted R^2 values, with sales tax having the greatest impact.

Table 5.44. Common Function Expenditure Regressed on Revenue Sources for City Types Based on Principal City Status

Variable	Principal	Non-Principal
Property tax	.12*	.29***
	(.05)	(.05)
Sales tax	.44***	.62***
	(.06)	(.07)
Intergovernmental	.13***	.03
	(.03)	(.04)
Adjusted R^2	.196	.258

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.45 reports the results of regressions on police expenditure for NLC typology cities. Metro centers and Centervilles show no significant revenue variables and the model is much less successful at explaining change in spending in most of the other categories than in the other expenditure regressions. However, sales tax revenue again has the most impact in every type city with statistically significant results.

Table 5.45. Police Expenditure Regressed on Revenue Sources for City Types Within the National Leagues of Cities' Typology

Revenue Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Property tax	.01 (.02)	.07** (.02)	.02 (.03)	.12*** (.03)	-.02 (.08)	-.05 (.05)	.03 (.04)
Sales tax	.05* (.02)	.29*** (.03)	.05 (.05)	.24*** (.05)	.18** (.06)	.04 (.03)	.11** (.03)
Intergovern-mental	-.00 (.01)	.04 (.05)	.02 (.02)	.01 (.02)	.10 (.07)	.06* (.03)	.08*** (.02)
Adjusted R^2	.006	.379	.026	.281	.104	.086	.800

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

The regressions results in Table 5.46 are about equally successful in explaining variation in police expenditure for cities based on their form of government. Sales tax revenue has the biggest impact in both manager and non-manager cities. Property tax revenue is not significant for manager cities and intergovernmental revenue does not show significance for the non-manager category.

Table 5.46. Police Expenditure Regressed on Revenue
Sources for City Types Based on Form of Government

Variable	Manager	Non-Manager
Property tax	.11***	.01
	(.02)	(.02)
Sales tax	.18***	.13***
	(.02)	(.02)
Intergovernmental	-.01	.05***
	(.01)	(.01)
Adjusted R^2	.219	.263

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.47 sets out the results for police expenditure for cities according to their metro status. The model explains 21% and 26% of the variation in spending for central cities and suburbs respectively, but only 9% for independent cities. The only statistically significant variable for independent cities is intergovernmental revenue, while sales tax revenue is the main predictor for both the others.

Table 5.47. Police Expenditure Regressed on Revenue
Sources for City Types Based on Metro Status

Variable	Central	Suburb	Independent
Property tax	.05**	.05**	-.02
	(.02)	(.02)	(.03)

Variable	Central	Suburb	Independent
Sales tax	.12***	.25***	.04
	(.02)	(.02)	(.03)
Intergovernmental	.03***	.04*	.08*
	(.01)	(.02)	(.03)
Adjusted R^2	.211	.264	.092

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.48 shows sales tax revenue is the major explanation for increases in police expenditure in cities regardless of whether or not they are principal cities. The model is about equally effective in both type cities.

Table 5.48. Police Expenditure Regressed on Revenue Sources for City Types Based on Principal City Status

Variable	Principal	Non-Principal
Property tax	.04**	.06**
	(.01)	(.02)
Sales tax	.12***	.22***
	(.02)	(.02)
Intergovernmental	.05***	.01
	(.01)	(.01)
Adjusted R^2	.253	.196

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan

Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.49 shows the results for regressions on total debt in NLC typology cities. Metro centers are the only cities that do not show any significant findings. Property tax revenue is the main explanation for increases in total debt in Meltingpot cities, whereas intergovernmental revenue is the indicator for Centervilles. In all other categories, sales tax revenue has the most influence.

Table 5.49. Total Debt Regressed on Revenue Sources for City Types Within the National Leagues of Cities' Typology

Revenue Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Property tax	-.08 (.56)	.97* (.47)	1.20 (.81)	1.37* (.57)	2.20* (.91)	.33 (.91)	2.06 (1.49)
Sales tax	1.51* (.60)	2.33*** (.59)	2.60 (1.30)	1.13 (1.00)	2.99*** (.76)	-.05 (.53)	4.31** (1.30)
Intergovern-mental	1.07** (.38)	-.16 (.93)	-.06 (.35)	.25 (.31)	.24 (.89)	1.08* (.53)	-.23 (.62)
Adjusted R^2	.041	.092	.047	.095	.195	.154	.372

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Sales tax revenue is the biggest influencer of total debt in both manager and non-manager cities (Table 5.50). The adjusted R^2 value is twice as large for non-manager cities as it is for manager cities.

Table 5.50. Total Debt Regressed on Revenue Sources for City Types Based on Form of Government

Variable	Manager	Non-Manager
Property tax	1.36** (.42)	.52 (.34)
Sales tax	1.90*** (.39)	3.21*** (.49)
Intergovernmental	.83** (.28)	.72*** (.19)
Adjusted R^2	.106	.221

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.51 includes the results of regressions on total debt based on the metro status of cites. Again, the adjusted R^2 values are lower than for other regression involving metro status. Sales tax revenue has the biggest impact on total debt in both central cities and suburbs. In independent cities, intergovernmental revenue is the only significant variable, and it predicts increases in debt.

Table 5.51. Total Debt Regressed on Revenue
Sources for City Types Based on Metro Status

Variable	Central	Suburb	Independent
Property tax	1.08**	1.34***	-2.55
	(.38)	(.28)	(1.70)
Sales tax	2.17***	2.33***	3.18
	(.43)	(.35)	(1.83)
Intergovernmental	.52**	.35	4.18*
	(.19)	(.25)	(1.79)
Adjusted R^2	.131	.175	.098

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.52 shows the results of regressions on total debt for principal and non-principal cities. Sales tax revenue has the biggest influence on debt in both type cities. Property tax revenue is not shown to be statistically significant for principal cities, and intergovernmental revenue is not significant for non-principal cities. The model explains more of the variation in debt in non-principal cities.

Table 5.52. Total Debt Regressed on Revenue
Sources for City Types Based on Principal City Status

Variable	Principal	Non-Principal
Property tax	.48	1.47***
	(.42)	(.25)

Variable	Principal	Non-Principal
Sales tax	2.36***	1.78***
	(.47)	(.32)
Intergovernmental	.91***	.19
	(.22)	(.18)
Adjusted R^2	.113	.186

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.53 reports the results of regressions on full faith and credit debt in cities grouped according to the NLC typology. In these regressions, sales tax revenue is only statistically significant in Gold coast cities, Boomtowns, and Mega-metro centers. Sales tax results in the largest change in full faith and credit debt in Gold coast cities and Mega-metro centers. All the other city types are influenced the most by the property tax variable. Intergovernmental revenue is only significant in Spread cities and Metro centers.

Table 5.53. Full Faith and Credit Debt Regressed on Revenue Sources for City Types Within the National Leagues of Cities' Typology

Revenue Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Property tax	.61***	.59*	1.00**	1.02**	1.41**	1.48*	1.08
	(.17)	(.29)	(.32)	(.33)	(.45)	(.63)	(.66)

Revenue Variable	Spread cities	Gold coast cities	Metro centers	Melting-pot cities	Boom-towns	Center-villes	Mega-metro centers
Sales tax	.15	1.62***	.19	-.38	.93*	-.49	1.52*
	(.19)	(.38)	(.52)	(.60)	(.39)	(.34)	(.57)
Intergovern-mental	.37**	-.13	.32*	.19	.01	.21	.36
	(.11)	(.61)	(.14)	(.17)	(.45)	(.36)	(.27)
Adjusted R^2	.209	.126	.338	.249	.196	.325	.562

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Cities*, under the name of C. Brennan. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.54 has results from regressions on full faith and credit debt for manager and non-manager cities. It shows property tax revenue has the largest effect in manager cities, being twice as influential as the next closest (sales tax) in impacting the debt. The variable sales tax is strongest in non-manager cities, resulting in an increase of $0.88 in debt for every dollar change in sales tax revenue. All the revenue variables are statistically significant in each city type, but the model is more predictive in non-manager cities.

Table 5.54. Full Faith and Credit Debt Regressed on Revenue Sources for City Types Based on Form of Government

Variable	Manager	Non-Manager
Property tax	1.41***	.34*
	(.19)	(.14)

Variable	Manager	Non-Manager
Sales tax	.74*** (.18)	.88*** (.21)
Intergovernmental	.25* (.13)	.54*** (.08)
Adjusted R^2	.248	.338

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Form of Government: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Table 5.55 shows results for regressions on full faith and credit debt for cities based on their metro status. The model best explains debt amounts for central cities, where property tax revenue is the largest indicator. In suburbs, sales tax revenue results in more change in debt level. None of the revenue variables are statistically significant in the regression for independent cities.

Table 5.55. Full Faith and Credit Debt Regressed on
Revenue Sources for City Types Based on Metro Status

Variable	Central	Suburb	Independent
Property tax	.72*** (.16)	.82*** (.18)	.37 (.32)
Sales tax	.70*** (.18)	1.14*** (.24)	.20 (.36)
Intergovernmental	.50*** (.08)	.28 (.16)	.46 (.35)
Adjusted R^2	.334	.161	.080

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

As seen in Table 5.56, the regression model predicted full faith and credit debt better for principal cities, where all of the revenue variables were significant. The variable intergovernmental revenue was not significant for non-principal cities. Sales tax revenue had the largest impact in both categories.

Table 5.56. Full Faith and Credit Debt Regressed on Revenue Sources for City Types Based on Principal City Status

Variable	Principal	Non-Principal
Property tax	.52*** (.15)	1.00*** (.17)
Sales tax	.67*** (.17)	1.01*** (.23)
Intergovernmental	.58*** (.08)	.24 (.12)
Adjusted R^2	.305	.223

Note. Level of significance: *p <.05; **p <.01; ***p <.001. Variables tested are property tax, sales tax, and intergovernmental revenue. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Summary of the Analysis of Revenue Source Variables

The above tables show there is much variation in the impact of revenue sources on expenditure and debt outputs for the various city types. However, it is clear that the revenue source variable that has the most impact on spending and debt is sales tax revenue. Sales tax revenue is the biggest predictor of expenditure and debt in almost all categories of cities.

Property tax revenue is the main influence in the following situations: Meltingpot cities when regressions are performed on total expenditure and total debt and Metro centers when regressions are performed on common function expenditure; for the categories of Spread cities, Metro centers, Meltingpot cities, Boomtowns, Centervilles, manager cities, and central cities in regressions on full faith and credit debt.

Intergovernmental revenue has the greatest impact only in the following situations: Independent cities in regressions on total, common function, and police expenditures and total debt; for the categories of Spread cities, Boomtowns, and Centervilles when regressions are done on total expenditure; and for Centervilles in regressions on police expenditure and total debt.

The regression analysis of revenue sources also supports the enhanced utility of the NLC typology scheme for classifying cities for purposes of financial research. The NLC typology classifications have the highest or next to highest average adjusted R^2 values in regressions on most of the fiscal outputs. The typology has the highest average explanatory score for common function expenditure (adjusted R^2 value of .271 to form of government's .246). It has the second highest average for total expenditure (principal city classification has an average adjusted R^2 value of .618 compared to NLC's average of .615), police expenditure (form of government has an average adjusted R^2 value of .241 compared to NLC's average of .240), and full faith and credit debt (form of government has an average adjusted R^2 value of .293 compared to NLC's average of .286). It is third in the regression on total debt, where it has an average score of .142 compared to .164 for form of government and .150 for principal city.

Comparison of the Classification Schemes' Utility for Financial Research

In addition to the analysis already discussed, multiple-regression analysis is performed to measure the various classification schemes in terms of their relative usefulness in examining fiscal outputs of cities. One way to do this is to compare separate regression models using the different classification methods and see which is best at explaining the fiscal output measures. To have a more accurate comparison of the fiscal output of the different cities, common function expenditure is used as the dependent variable to control for variation in functional inclusiveness among the cities.

Regressions are conducted on common function expenditure using the demographic variables discussed earlier in this chapter and variables for different categories in the various classification schemes. The results are presented in Table 5.57.

Table 5.57. Results of Multiple-Regression Analysis on Common Function Expenditures of Different City Classification Schemes

Variable	Model #1	Model #2	Model #3	Model #4	Model #5	Model #6
Population	.00***	5.86E-005*	.00***	.00***	.00***	4.46E-005
	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Density	-.01***	-.01**	-.01***	-.00	-.01**	-.00
	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Growth Rate	.06	-.04	.07	.10	.05	-.03
	(.09)	(.10)	(.09)	(.09)	(.09)	(.10)
Median Income	.00***	.00***	.00***	.01***	.00***	.00***
	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
Home Ownership	-6.49***	-6.54***	-6.45***	-5.16***	-5.48***	-5.36***
	(.99)	(.98)	(.99)	(.99)	(.99)	(.99)
Children	-6.26*	-5.54***	-6.51*	-6.38*	-5.55*	-5.36*
	(2.66)	(2.66)	(2.68)	(2.61)	(2.62)	(2.63)
Elderly	6.88**	8.10*	6.82**	6.49**	6.49**	7.58**
	(2.35)	(2.38)	(2.35)	(2.30)	(2.31)	(2.35)
Black	1.96**	1.40*	1.96**	2.13***	1.84**	1.58**
	(.58)	(.59)	(.58)	(.57)	(.57)	(.58)
Hispanic	-.70	-.03	-.56	-.42	-.72	.02
	(.67)	(.76)	(.69)	(.66)	(.66)	(.76)
Percentage Intergovernmental	-119.65	-163.95**	-130.17*	-159.57*	-107.93	-172.88**
	(63.14)	(62.61)	(64.20)	(62.27)	(62.16)	(63.08)
Spread	---	-129.06***	---	---	---	-103.16**
	---	(30.38)	---	---	---	(30.44)
Gold coast	---	-121.93**	---	---	---	-71.89
	---	(38.84)	---	---	---	(39.40)
Meltingpot	---	-200.00***	---	---	---	-142.23***
	---	(39.76)	---	---	---	(40.64)
Boomtown	---	-52.15	---	---	---	.34
	---	(46.54)	---	---	---	(46.84)
Centerville	---	-155.21***	---	---	---	-145.64**
	---	(40.25)	---	---	---	(50.22)
Mega-metro center	---	125.46*	---	---	---	116.44*
	---	(56.73)	---	---	---	(56.11)
Manager	---	---	-16.27	---	---	-10.29
	---	---	(17.86)	---	---	(17.36)

Variable	Model #1	Model #2	Model #3	Model #4	Model #5	Model #6
Central	---	---	---	129.40***	---	85.36***
	---	---	---	(20.81)	---	(24.34)
Independent	---	---	---	114.18**	---	134.59**
	---	---	---	(33.44)	---	(41.65)
Principal city	---	---	---	---	93.52***	43.78*
	---	---	---	---	(16.70)	(20.69)
Adjusted R^2	.157	.197	.157	.190	.184	.223

Note: Level of significance: *p <.05; **p <.01; ***p <.00. Variables tested include: population, density, growth, median income, homeowner, children, elderly, Black, Hispanic, and percentage intergovernmental revenues. Values of unstandardized beta coefficients and standard errors are expressed in per capita dollar amounts. Data Source for Typology: C. McFarland, personal communication, June 14, 2006. C. McFarland coauthored the NLC report, *From Meltingpot Cities to Boomtowns: Redefining How We Talk About America's Citie*s, under the name of C. Brennan. Data Source for Form of Government and Metro Status: International City/County Management Association (ICMA), *Municipal Form of Government Survey 2001*. Washington, DC: ICMA, 2002 and International City/County Management Association, *Municipal Yearbook 2003*. Washington, DC: ICMA, 2003. Data Source for Principal City definition based on material in Office of Management and Budget, Standards for Defining Metropolitan and Micropolitan Statistical Areas, 65 Fed. Reg. 82,238 (December 27, 2000). Data source: U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas and Components, Washington, DC: U.S. Department of Commerce, 2004. Fiscal Output data are from the U.S. Bureau of the Census (2002), Census of Governments, spreadsheet of financial data.

Model #1 utilizes only the demographic variables and is found to explain 15.7% of the cities' variation in spending on common functions. Model #2 includes the demographic variables and dummy variables for the NLC typology categories (using Metro centers as the reference category) and is shown to account for 19.7% of variation in spending. Model #3 is a regression of the demographic variables and a dummy variable for the manager form of government. The model explains 15.7% of the variation in spending, no better than the demographic variables alone. Model #4 uses dummy variables for central and independent cities (with suburbs as the reference category) and results in explanation for 19.0% of the variation in spending. Model #5 uses the demographic variables, along with a dummy variable representing principal cities, and results in an 18.4% explanation of spending. Finally, Model #6 includes all of the independent variables from the other regression models and the adjusted R^2 value is .223.

These regression results show that use of the NLC typology classification provides a better means of categorizing cities to explain common function expenditure levels. This finding, along with the greater specificity offered by the typology's seven categories, further supports the hypothesis that it is a better method of classifying cities than the others analyzed. The following chapter concludes the dissertation with a summary of the hypothesis testing conducted, along with discussion of strengths and weaknesses of the study. It also includes suggestions for additional research expanding upon the topics covered in the dissertation.

CHAPTER 6

CONCLUSION

In evaluating the National League of Cities' (NLC) typology and comparing it to other classifications, the most obvious distinction is that it contains more categories (seven with the inclusion of Mega-metro centers) into which cities are grouped than the other classification schemes analyzed. Thus, provided the NLC categories offer meaningful distinctions among the city types, they may result in a better understanding of municipal financial behavior. This chapter concludes the dissertation by summarizing the findings of the study and addressing related issues.

The study initially looks at the regional and demographic makeup of the different city types within the NLC typology to gain a better understanding of the characteristics of the cities within each category. The differences between the NLC typology categories are also examined by comparing the mean values for various fiscal outputs of the city types. This terminus a quo indicates there are indeed differences between the categories of cities within the NLC typology, in terms of both demographic factors that impact city finances and actual fiscal output measures, but it does not address the statistical significance of the apparent variations. To measure statistical differences, seven hypotheses are tested through different techniques.

Summary of Hypothesis Testing

The seven hypotheses tested in this dissertation relate to the financial behavior and practices of cities. The fiscal measures analyzed relate either to the level of expenditure, revenue, and debt or to their composition (sources of revenue and types of debt). Specifically, the research hypotheses are as follows:

1. There are significant differences between the expenditure, revenue, and debt outputs in different city types.
2. There are significant differences in expenditure levels between the different city types.
3. There are significant differences in revenue levels between the different city types.
4. There are significant differences in revenue sources between the different city types.
5. There are significant differences in debt levels between the different city types.
6. There are significant differences in the type of debt incurred between the different city types.
7. The NLC typology will provide a more statistically significant measure of the financial behaviors of cities than did prior categorizations.

The first six of the hypotheses all predict there are significant differences between the city types within the NLC typology in terms of the fiscal outputs. The final hypothesis posits that the NLC typology will provide a more statistically significant measure of fiscal outputs than do other classifications based on form of government, metropolitan (metro) status, and principal city status. Several of the statistical tests performed show support in terms of both these types of hypotheses. However, the hypotheses predicting differences and the one comparing usefulness are addressed separately to emphasize the different inferences that can be drawn from the results.

Differences Between the NLC Typology Categories

The main tests the study uses for detecting statistically significant differences between the NLC groupings are analysis of variance (ANOVA) and Student's *t*-test procedures. Oneway ANOVA testing of differences between the categories within the NLC typology in terms of both the mean values of demographic variables (those noted in prior studies to influence municipal finance) and the measures of fiscal outputs for the cities shows that overall there are indeed statistically significant differences between the different typology categories. The only demographic variable found not to be significant is population. All of the financial measures show statistical significance at the specified level of < .05, confirming hypotheses 1 through 6.

The *t*-test analysis shows that, in terms of demographic variables that influence city finance, 78% of the possible differences analyzed exhibit statistical significance. Among fiscal outputs examined, 57% of the potential differences show statistical significance. All of the city types within the NLC typology have some difference in each of the fiscal outputs that are significant at the level of < .05. Thus, the *t*-test analysis further confirms hypotheses 1 through 6.

Comparison of Classification Schemes

Hypothesis #7 postulates that the NLC typology will provide a more statistically significant measure of the financial behaviors of cities when compared to the other classification schemes being analyzed. To test the relative utility of the NLC typology in this regard, several methods of comparison are conducted. Along with the typology categories, the categories within the classification methods based on form of government, metro status, and principal city status are examined in terms of both their demographic characteristics and fiscal outputs. Such analysis shows the NLC typology has the lowest average variation, as measured by coefficients of variation, for all of the demographic variables impacting city finance – other than percent elderly.

Comparison of the fiscal output measures using coefficients of variation shows that, on eight of the fiscal output variables, the NLC typology is the lowest (common function expenditure, sales tax revenue, income tax revenue, total debt, and full faith and credit debt) or the second lowest (police expenditure, total revenue, and percentage intergovernmental revenue) of the classification schemes. On the remaining four fiscal measures, it is in the mid range of the schemes. None of the other classification schemes, however, scores as low on as many variables. This low variation supports the premise (as maintained by hypothesis #7) that the NLC typology is a better classification method for examining fiscal behaviors.

As noted previously, oneway ANOVA testing shows that the NLC typology has statistically significant differences on each of the demographic variables, except population. While the metro status classification also has significant differences on all (and the other classification methods have significant differences on most) demographic variables, the strength of the relationships (measured by the eta^2 value) is clearly greater for the NLC typology. More importantly, the NLC typology is the only classification scheme found through ANOVA testing to have statistically significant differences on all fiscal outputs. Again, the effect sizes of these differences in the NLC categories are greater overall than those of the other classification methods. Thus, ANOVA testing confirms hypothesis #7.

Student's *t*-test analysis further substantiates the hypothesis that the NLC categorizations are best for financial comparisons. In terms of possible differences between categories within each classification scheme on the demographic variables, the NLC typology shows statistical significance on 78% of the potential differences. For fiscal outputs, the average for the NLC categories is 57%. Only the metro status classification has a greater average for demographic factors (85%), but its average on fiscal outputs is lower (only 50%). The principal city classification averages more fiscal output differences (58%), but only about an equal amount (58%) on demographic factors. These findings suggest that the NLC classification is at least as good as the other classification schemes in terms of the overall average number of significant differences exhibited among its categories. Thus, hypothesis #7 is partially supported by this testing procedure.

Multiple-regression analysis is one of the most common means of measuring the utility of several variables in predicting variation in a dependent variable. For this reason, separate regressions are performed for each fiscal output to measure the predictive impact of the demographic variables within each of the different city categorization methods. Regressions are also performed on revenue sources to determine the effects these have on fiscal outputs involving expenditure and debt for each category in the different classification schemes. These regressions show the models tend to have higher predictive power, as determined by adjusted R^2 values, when they are performed for the NLC typology categories. This analysis also supports hypothesis #7.

To assess the overall effectiveness of different classification schemes in predicting fiscal outputs, regressions are performed testing the influence of the different demographic variables on common function expenditure. Separate regressions, each using a different classification scheme, are performed and compared to the others to measure any variation in the predictive capacity of the models. This analysis shows that the NLC classification model has the greatest predictive ability among the different classification schemes, further confirming that the NLC typology is a better means of categorizing cities, as hypothesized.

Strengths and Weaknesses of the Study

There are a number of strengths to the study conducted in this dissertation. It is the first such analysis focusing on the usefulness of the NLC typology in conducting local public finance research. As such, it provides empirical support showing the utility of the typology in an area that heretofore was unexamined. The study also provides a detailed examination of recent financial data involving a large sample of US cities, and it considers extant demographic characteristics of the cities. This not only results in a better understanding of the new typology, but it offers fresh insight into fiscal behavior of cities within the previous classifications as well.

The study also has several weaknesses that should be noted. First, the breadth of the study exploring the demographic and financial variables associated with the different city types precludes a more concentrated examination, at this time, of important areas concerning fiscal practices of cities. Also, some governmental data fails to differentiate between cities without a revenue source or expenditure category and cities that fail to report such data. This limits inquiry into some policy outputs among cities. Examples include income tax revenue and school expenditure.

Suggestions for Further Research

While the findings of this study offer initial insights into the usefulness of the NLC typology for municipal finance research, there are a number of additional areas that warrant further exploration. One area involves a closer examination of the effects that regional location may have on the behavior of cities within the different NLC typology categories. Do particular city types behave differently in terms of fiscal outputs according to their region of the county? Are Meltingpot cities in the Northeast the same as those in the West? If not, do factors attributable to time of settlement impact their fiscal behavior? Or do economic conditions impact different city types? Does a particular type city in the Sun Belt have different financial outputs than the same type cities in the Rust Belt?

Another area for inquiry involves consideration of how the characteristics associated with other classification schemes impact the typology city types. For example, do particular NLC city types governed by city managers have fiscal outputs that vary from similar NLC city types with mayors? Or does the metro status of Spread cities have greater impact than for Centervilles?

Also, restrictions on a city's ability to fully determine its own outputs can be examined. Differing state laws that limit cities' financial options are likely to influence behaviors within city types. How do restrictions on a city's ability to impose property or sales taxes influence fiscal behavior among the different typology classifications? How does the distribution of intergovernmental revenue change spending by particular type cities? Are there demographic influences on fiscal outputs that are masked by intervening variables such as the structure of revenue sources?

Finally, future research may consider additional variables and data sources in examining the fiscal behavior of cities with the NLC typology categories. For example, are there data available on the different interest groups that influence city fiscal behaviors that can be considered in relationship to the cities' classification in the NLC typology?

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APPENDIX

LIST OF CITIES ANALYZED

SPREAD CITIES

ALABAMA
Auburn
Bessemer
Decatur
Dothan
Gadsden
Huntsville
Prichard
Tuscaloosa

ALASKA
Fairbanks

ARIZONA
Flagstaff
Tempe

ARKANSAS
Fayetteville
Ft Smith
Jacksonville
Jonesboro
North Little Rock
Pine Bluff
West Memphis

CALIFORNIA
Chico
Davis
El Cajon
Hemet
La Mesa
Lodi
Manteca
Monrovia
Napa
Redding
Redlands
Rohnert Park
San Luis Obispo
Santa Cruz
Upland
Visalia

(California)
Yuba City

COLORADO
Englewood
Ft Collins
Grand Junction
Greeley
Loveland
Northglenn
Pueblo
Wheat Ridge

CONNECTICUT
Bristol
Meriden
Middletown
Naugatuck
New Britain
New London
Norwich

DELAWARE
Dover
Newark
Wilmington

DISTRICT
COLUMBIA
None

FLORIDA
Altamonte Springs
Bradenton
Clearwater
Daytona Beach
Ft Lauderdale
Ft Myers
Ft Pierce
Gainesville
Hollywood
Lakeland
Largo

(Florida)
Melbourne
Oakland Park
Ocala
Panama City
Pensacola
Pinellas Park
Pompano Beach
Riviera Beach
Sanford
Sarasota
Tallahassee
Titusville
West Palm Beach

GEORGIA
Albany
Macon
Marietta
Rome
Savannah
Valdosta
Warner Robins

HAWAII
None

IDAHO
Boise
Idaho Falls
Lewiston
Pocatello

ILLINOIS
Alton
Belleville
Bloomington
Calumet
Chicago Heights
Danville
Decatur
East St Louis
Joliet

(Illinois)
Kankakee
Lansing
Moline
Normal
Pekin
Peoria
Rock Island
Rockford
Springfield
Urbana

INDIANA
Anderson
Bloomington
Columbus
Elkhart
Evansville
Ft Wayne
Greenwood
Hammond
Kokomo
Lafayette
Merrillville
Michigan City
Mishawaka
Muncie
New Albany
Portage
Terre Haute
West Lafayette

IOWA
Ames
Cedar Falls
Cedar Rapids
Council Bluffs
Davenport
Dubuque
Iowa City
Sioux City
Waterloo

KANSAS
Lawrence

(Kansas)
Topeka

KENTUCKY
Bowling Green
Covington
Henderson
Owensboro

LOUISIANA
Alexandria
Bossier City
Kenner
Lafayette Consol Govt
Lake Charles
Monroe

MAINE
Bangor
Lewiston
Portland

MARYLAND
Frederick
Hagerstown

MASSACHUSETTS
Attleboro
Brockton
Chicopee
Everett
Fall River
Fitchburg
Gloucester
Haverhill
Holyoke
Leominster
Malden
New Bedford
Northampton
Pittsfield
Revere
Salem
Taunton
Westfield

MICHIGAN
Battle Creek
Bay City
Burton
East Lansing
Garden City
Inkster
Jackson
Kalamazoo
Kentwood
Lincoln Park
Madison Heights
Muskegon
Oak Park
Pontiac
Roseville
Southgate
Taylor
Warren
Westland
Wyoming

MINNESOTA
Brooklyn Center
Duluth
Fridley
Moorhead
Richfield
St Cloud

MISSISSIPPI
Biloxi
Gulfport
Hattiesburg
Pascagoula

MISSOURI
Columbia
Florissant
Gladstone
Independence
Jefferson City
Joplin
Raytown
Springfield

(Missouri)
St Charles
St Joseph
University City

MONTANA
Billings
Great Falls
Missoula

NEBRASKA
Bellevue

NEVADA
Carson City
Sparks

NEW HAMPSHIRE
Dover
Manchester
Nashua
Rochester

NEW JERSEY
Vineland

NEW MEXICO
Farmington
Las Cruces

NEW YORK
Albany
Binghamton
Elmira
Niagara Falls
North Tonawanda
Saratoga Springs
Schenectady
Troy
Utica

NORTH CAROLINA
Asheville
Burlington

(North Carolina)
Chapel Hill
Fayetteville
Gastonia
Goldsboro
Greenville
Hickory
High Point
Rocky Mount
Wilmington

NORTH DAKOTA
Bismarck
Fargo
Grand Forks

OHIO
Barberton
Canton
Cuyahoga Falls
East Cleveland
Elyria
Euclid
Fairborn
Fairfield
Garfield Heights
Hamilton
Huber Heights
Kent
Kettering
Lakewood
Lima
Lorain
Mansfield
Maple Heights
Parma
Reynoldsburg
Sandusky
Warren
Youngstown

OKLAHOMA
Lawton
Midwest City
Moore

(Oklahoma)
Norman

OREGON
Corvallis
Eugene
Gresham
Medford
Salem

PENNSYLVANIA
Allentown
Altoona
Bethlehem
Easton
Erie
Harrisburg
Lancaster
Norristown
Reading
Scranton
State College
Wilkes-Barre
Williamsport
York

RHODE ISLAND
Cranston
East Providence
Pawtucket
Warwick
Woonsocket

SOUTH CAROLINA
Anderson
Charleston
Columbia
Florence
Greenville
North Charleston
Rock Hill
Spartanburg
Sumter

SOUTH DAKOTA
Rapid City
Sioux Falls

TENNESSEE
Clarksville
Johnson City
Kingsport
Knoxville
Murfreesboro

TEXAS
Abilene
Amarillo
Baytown
Beaumont
Bryan
College Station
Denton
Euless
Galveston
Haltom City
Hurst
Longview
Midland
Odessa
San Angelo
Sherman
Temple
Tyler
Victoria
Waco
Wichita Falls

UTAH
Logan
Murray
Ogden
Provo

VERMONT
None

VIRGINIA
Blacksburg

(Virginia)
Charlottesville
Danville
Harrisonburg
Lynchburg
Portsmouth
Roanoke

WASHINGTON
Auburn
Bellingham
Bremerton
Everett
Kennewick
Longview
Lynnwood
Olympia
Renton
Yakima

WEST VIRGINIA
Charleston
Huntington
Morgantown
Parkersburg
Wheeling

WISCONSIN
Appleton
Eau Claire
Greenfield
Janesville
Kenosha
La Crosse
Oshkosh
Racine
Sheboygan
West Allis

WYOMING
Casper
Cheyenne

GOLD COAST
CITIES

ALABAMA
None

ALASKA
None

ARIZONA
Prescott

ARKANSAS
None

CALIFORNIA
Alameda
Arcadia
Berkeley
Beverly Hills
Brea
Burbank
Burlingame
Camarillo
Carlsbad
Cerritos
Claremont
Concord
Culver
Cupertino
Cypress
Foster
Fountain Valley
Fremont
Glendora
Huntington Beach
Irvine
La Mirada
La Verne
Lakewood
Livermore
Los Altos
Los Gatos Town
Manhattan Beach
Martinez

(California)
Menlo Park
Monterey
Mountain View
Newport Beach
Novato
Pacifica
Palm Springs
Palo Alto
Petaluma
Placentia
Pleasant Hill
Pleasanton
Rancho Palos Verdes
Redondo Beach
Redwood City
San Bruno
San Buenaventura
San Carlos
San Clemente
San Dimas
San Juan Capist
San Leandro
San Mateo
San Rafael
Santa Barbara
Santa Clara
Santa Monica
Santa Rosa
Saratoga
Simi Valley
Sunnyvale
Thousand Oaks
Torrance
Walnut Creek
Yorba Linda

COLORADO
Arvada
Boulder

CONNECTICUT
Danbury
Norwalk
Shelton
Stamford

DELAWARE
None

DISTRICT
COLUMBIA
None

FLORIDA
Boca Raton
Boynton Beach
Coral Gables
Deerfield Beach
Delray Beach
Dunedin
Hallandale Beach
Margate
Ormond Beach
Plantation
Port Orange
Sunrise
Tamarac

GEORGIA
Smyrna

HAWAII
None

IDAHO
None

ILLINOIS
Arlington Heights
Buffalo Grove
Burbank
Des Plaines

(Illinois)
Downers Grove
Elk Grove
Elmhurst
Evanston
Glenview
Highland Park
Hoffman Estates
Lombard
Niles
Oak Forest
Oak Lawn
Oak Park
Orland Park
Palatine
Park Ridge
Schaumburg
Skokie
Streamwood
Wheaton
Wheeling
Wilmette
Woodridge

INDIANA
None

IOWA
Bettendorf

KANSAS
Lenexa
Overland Park
Shawnee

KENTUCKY
None

LOUISIANA
None

MAINE
None

MARYLAND
Annapolis
Bowie
Gaithersburg
Rockville

MASSACHUSETTS
Beverly
Marlborough
Medford
Melrose
Newton
Peabody
Quincy
Waltham
Woburn

MICHIGAN
Allen Park
Ann Arbor
Dearborn Heights
Farmington Hills
Portage
Royal Oak
Southfield
St Clair Shores
Sterling Heights

MINNESOTA
Bloomington
Brooklyn Park
Burnsville
Edina Village
Maplewood
Minnetonka
Plymouth
Rochester
Roseville
St Louis Park

MISSISSIPPI
None

MISSOURI
Kirkwood

MONTANA
None

NEBRASKA
None

NEVADA
None

NEW HAMPSHIRE
None

NEW JERSEY
Westfield

NEW MEXICO
Santa Fe

NEW YORK
Lindenhurst
Long Beach
New Rochelle
Valley Stream
White Plains

NORTH CAROLINA
None

NORTH DAKOTA
None

OHIO
Beavercreek
Brunswick
Cleveland Heights
Mentor
North Olmsted
Shaker Heights
Stow
Upper Arlington
Westerville
Westlake

OKLAHOMA
None

OREGON
Beaverton
Lake Oswego

PENNSYLVANIA
Bethel Park
Monroeville
Plum

RHODE ISLAND
None

SOUTH
CAROLINA
None

SOUTH DAKOTA
None

TENNESSEE
Germantown
Hendersonville

TEXAS
Deer Park
Duncanville
No Richland Hills
Richardson

UTAH
Bountiful

VERMONT
None

VIRGINIA
None

WASHINGTON
Bellevue
Edmonds
Kirkland

(Washington)
Redmond
Richland

WEST VIRGINIA
None

WISCONSIN
Menomonee Falls
New Berlin
Wauwatosa

WYOMING
None

METRO CENTERS

ALABAMA
Birmingham
Mobile
Montgomery

ALASKA
Anchorage

ARIZONA
Mesa
Tucson

ARKANSAS
Little Rock

CALIFORNIA
Anaheim
Bakersfield
Fresno
Glendale
Long Beach
Modesto
Oakland
Pasadena
Riverside
Sacramento
Stockton

COLORADO
Aurora
Colorado Springs

CONNECTICUT
Bridgeport
Hartford
New Haven
Waterbury

DELAWARE
None

DISTRICT COLUMBIA
None

FLORIDA
Miami
Orlando
St Petersburg
Tampa

GEORGIA
Atlanta

HAWAII
None

IDAHO
None

ILLINOIS
None

INDIANA
None

IOWA
Des Moines

KANSAS
Wichita
Wyand County & Kansas City

KENTUCKY
None

LOUISIANA
New Orleans
Shreveport

MAINE
None

MARYLAND
None

MASSACHUSETTS
Lowell
Lynn
Springfield
Worcester

MICHIGAN
Grand Rapids

MINNESOTA
Minneapolis
St Paul

MISSISSIPPI
Jackson

MISSOURI
Kansas City
St Louis

MONTANA
None

NEBRASKA
Lincoln
Omaha

NEVADA
Las Vegas
Reno

NEW HAMPSHIRE
None

NEW JERSEY
Newark
Trenton

NEW MEXICO
Albuquerque

NEW YORK
Buffalo
Rochester
Syracuse
Yonkers

NORTH
CAROLINA
Durham
Greensboro
Raleigh
Winston-Salem

NORTH DAKOTA
None

OHIO
Akron
Cincinnati
Cleveland
Dayton
Toledo

OKLAHOMA
Tulsa

OREGON
None

PENNSYLVANIA
Pittsburgh

RHODE ISLAND
Providence

SOUTH
CAROLINA
None

SOUTH DAKOTA
None

TENNESSEE
None

TEXAS
Arlington
Corpus Christi
Lubbock

UTAH
Salt Lake City

VERMONT
None

VIRGINIA
Alexandria
Chesapeake
Hampton
Newport News
Norfolk
Richmond
Virginia Beach

WASHINGTON
Spokane
Tacoma

WEST VIRGINIA
None

WISCONSIN
None

WYOMING
None

MELTINGPOT
CITIES

ALABAMA
None

ALASKA
None

ARIZONA
Yuma

ARKANSAS
None

CALIFORNIA
Alhambra
Azusa
Baldwin Park
Bell
Bell Gardens
Bellflower
Buena Park
Carson
Ceres
Chino
Chula Vista
Colton
Compton
Costa Mesa
Covina
Daly City
Downey
El Centro
El Monte
Escondido
Fairfield
Fontana
Fullerton
Garden Grove
Gardena
Gilroy
Hawthorne
Hayward
Huntington Park

(California)
Imperial Beach
Indio
Inglewood
La Habra
La Puente
Lancaster
Lawndale
Lompoc
Lynwood
Madera
Maywood
Merced
Milpitas
Montclair
Montebello
Monterey Park
National City
Newark
Norwalk
Oceanside
Ontario
Orange
Oxnard
Paramount
Pico Rivera
Pittsburg
Pomona
Porterville
Rialto
Richmond
Rosemead
Salinas
San Bernardino
San Gabriel
San Pablo
Santa Ana
Santa Maria
Seaside
South Gate
So San Francisco
Stanton

(California)
Temple
Turlock
Tustin
Union City
Vallejo
Vista
Walnut
Watsonville
West Covina
Westminster
Whittier

COLORADO
None

CONNECTICUT
None

DELAWARE
None

DISTRICT
COLUMBIA
None

FLORIDA
Hialeah
Kissimmee
Lake Worth
Lauderhill
Miami Beach
North Lauderdale
North Miami Beach
North Miami

GEORGIA
East Point

HAWAII
None

IDAHO
None

ILLINOIS
Addison
Berwyn
Elgin
Glendale Heights
Hanover Park
North Chicago
Waukegan

INDIANA
East Chicago

IOWA
None

KANSAS
None

KENTUCKY
None

LOUISIANA
None

MAINE
None

MARYLAND
None

MASSACHUSETTS
Cambridge
Chelsea
Lawrence
Somerville

MICHIGAN
None

MINNESOTA
None

MISSISSIPPI
None

MISSOURI
None

MONTANA
None

NEBRASKA
None

NEVADA
None

NEW HAMPSHIRE
None

NEW JERSEY
Elizabeth
Hoboken
New Brunswick
Paterson
Perth Amboy
Plainfield
Union
West New York

NEW MEXICO
None

NEW YORK
Freeport
Hempstead
Mt Vernon
Newburgh

NORTH CAROLINA
Jacksonville

NORTH DAKOTA
None

OHIO
None

OKLAHOMA
None

OREGON
None

PENNSYLVANIA
None

RHODE ISLAND
None

SOUTH CAROLINA
None

SOUTH DAKOTA
None

TENNESSEE
None

TEXAS
Brownsville
Garland
Grand Prairie
Harlingen
Irving
Killeen
Laredo
McAllen
Pasadena

UTAH
None

VERMONT
None

VIRGINIA
None

WASHINGTON
None

WEST VIRGINIA
None

WISCONSIN
None

WYOMING
None

BOOMTOWNS

ALABAMA
Hoover

ALASKA
None

ARIZONA
Chandler
Gilbert
Glendale
Peoria
Scottsdale

ARKANSAS
Springdale

CALIFORNIA
Antioch
Clovis
Corona
Folsom
Palmdale
Rancho Cucamonga
Roseville
San Marcos
Tracy
Vacaville
Victorville

COLORADO
Longmont
Thornton
Westminster

CONNECTICUT
None

DELAWARE
None

DISTRICT
COLUMBIA
None

FLORIDA
Cape Coral
Coconut Creek
Coral Springs
Davie
Miramar
Palm Bay
Pembroke Pines
Port St Lucie

GEORGIA
Roswell

HAWAII
None

IDAHO
Nampa

ILLINOIS
Bolingbrook
Carol Stream
Naperville
Tinley Park

INDIANA
Carmel
Lawrence

IOWA
West Des Moines

KANSAS
Olathe

KENTUCKY
None

LOUISIANA
None

MAINE
None

MARYLAND
None

MASSACHUSETTS
None

MICHIGAN
Novi

MINNESOTA
Apple Valley
Blaine
Coon Rapids
Eagan
Eden Prairie
Maple Grove

MISSISSIPPI
None

MISSOURI
Blue Springs
Lees Summit
St Peters

MONTANA
None

NEBRASKA
None

NEVADA
Henderson
North Las Vegas

NEW HAMPSHIRE
None

NEW JERSEY
None

NEW MEXICO
None

NEW YORK
None

NORTH
CAROLINA
Cary
Concord

NORTH DAKOTA
None

OHIO
None

OKLAHOMA
Broken Arrow
Edmond

OREGON
Hillsboro
Tigard

PENNSYLVANIA
None

RHODE ISLAND
None

SOUTH
CAROLINA
Mt Pleasant

SOUTH DAKOTA
None

TENNESSEE
Bartlett

TEXAS
Carrollton
Desoto
Grapevine
La Porte
League City
Lewisville

(Texas)
Mesquite
Missouri City
Plano
Round Rock

UTAH
Layton
Orem
St George
West Jordan

VERMONT
None

VIRGINIA
Manassas

WASHINGTON
Kent
Vancouver

WEST VIRGINIA
None

WISCONSIN
None

WYOMING
None

CENTERVILLES

ALABAMA
None

ALASKA
Juneau

ARIZONA
Sierra Vista

ARKANSAS
Conway

CALIFORNIA
Eureka
Hanford
Paradise
Santa Paula
Tulare
Woodland

COLORADO
None

CONNECTICUT
Torrington

DELAWARE
None

DISTRICT
COLUMBIA
None

FLORIDA
None

GEORGIA
La Grange

HAWAII
None

IDAHO
None

ILLINOIS
Freeport
Galesburg
Quincy

INDIANA
Marion
Richmond

IOWA
Burlington
Clinton
Marshalltown
Mason

KANSAS
Hutchinson
Leavenworth
Manhattan
Salina

KENTUCKY
Frankfort
Hopkinsville
Paducah

LOUISIANA
New Iberia

MAINE
None

MARYLAND
None

MASSACHUSETTS
None

MICHIGAN
Midland

MINNESOTA
Mankato

MISSISSIPPI
Greenville
Meridian
Tupelo

MISSOURI
Cape Girardeau

MONTANA
Butte-Silver Bow

NEBRASKA
Grand Island

NEVADA
None

NEW HAMPSHIRE
Concord

NEW JERSEY
None

NEW MEXICO
Alamogordo
Clovis
Hobbs

NEW YORK
Auburn
Jamestown
Rome

NORTH CAROLINA
Wilson

NORTH DAKOTA
None

OHIO
Bowling Green
Findlay
Lancaster
Marion

OKLAHOMA
Bartlesville
Enid
Muskogee
Ponca City
Shawnee
Stillwater

OREGON
Albany

PENNSYLVANIA
New Castle

RHODE ISLAND
None

SOUTH CAROLINA
None

SOUTH DAKOTA
None

TENNESSEE
Columbia
Oak Ridge

TEXAS
Conroe
Huntsville
Kingsville
Lufkin
Nacogdoches
San Marcos

UTAH
None

VERMONT
None

VIRGINIA
Suffolk

WASHINGTON
Walla Walla

WEST VIRGINIA
None

WISCONSIN
Manitowoc

WYOMING
Laramie

MEGA-METRO
CENTERS

ALABAMA
None

ALASKA
None

ARIZONA
Phoenix

ARKANSAS
None

CALIFORNIA
Los Angeles
San Diego
San Francisco
San Jose

COLORADO
Denver

CONNECTICUT
None

DELAWARE
None

DISTRICT
COLUMBIA
Washington DC

FLORIDA
Jacksonville

GEORGIA
None

HAWAII
Honolulu

IDAHO
None

ILLINOIS
Chicago

INDIANA
Indianapolis

IOWA
None

KANSAS
None

KENTUCKY
None

LOUISIANA
None

MAINE
None

MARYLAND
Baltimore

MASSACHUSETTS
Boston

MICHIGAN
Detroit

MINNESOTA
None

MISSISSIPPI
None

MISSOURI
None

MONTANA
None

NEBRASKA
None

NEVADA
None

NEW HAMPSHIRE
None

NEW JERSEY
None

NEW MEXICO
None

NEW YORK
New York City

NORTH CAROLINA
Charlotte

NORTH DAKOTA
None

OHIO
Columbus

OKLAHOMA
Oklahoma City

OREGON
Portland

PENNSYLVANIA
Philadelphia

RHODE ISLAND
None

SOUTH CAROLINA
None

SOUTH DAKOTA
None

TENNESSEE
Memphis
Nashville-Davidson
County

TEXAS
Austin
Dallas
El Paso
Ft Worth
Houston
San Antonio

UTAH
None

VERMONT
None

VIRGINIA
None

WASHINGTON
Seattle

WEST VIRGINIA
None

WISCONSIN
Milwaukee

WYOMING
None