

## ABSTRACT

LINDBLAD, MARK RICHARD. ACCOUNTABLE TO WHOM?: POLICYMAKERS' USE OF PERFORMANCE MEASUREMENT IN LOCAL ECONOMIC DEVELOPMENT. (Under the direction of Denis Gray.)

Despite a growing movement toward accountability in the public sector, little research exists on factors affecting the use of accountability tools such as performance measurement. Many publications suggest how to use performance measures, but little is known about why some municipalities use performance measurement whereas others do not. This study examines performance measurement within economic development, an area of local government that attempts to create better jobs and wages for citizens, yet faces growing criticism over its cost and effectiveness. The analysis identifies factors that affect performance measurement in economic development and compares the impact of structural determinants such as demographic and socioeconomic factors to local community choices such as organizational, political, and community forces. Of the local choice variables, performance measurement was most influenced by organizational characteristics of the economic development agency: staff size, budget, plans, partnering, and number of business incentives offered. Structural determinants, which included city expenditures, labor and employer barriers, competition for investment, and region of US, exerted less influence on performance measurement, yet showed that socioeconomic and competitive forces do affect the use of accountability tools. Overall, the findings indicate that in municipal policymaking, both structural constraints and local choices matter, but local choices matter more.

**ACCOUNTABLE TO WHOM?:  
POLICYMAKERS' USE OF PERFORMANCE MEASUREMENT  
IN LOCAL ECONOMIC DEVELOPMENT**

by

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## **BIOGRAPHY**

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## I. INTRODUCTION

### Context of Performance Measurement in Local Government

In local governments nationwide there is a growing movement to monitor the performance of police and fire departments, libraries, parks, waste collection, and other public services. Increasingly, local officials are using data to assess and improve the quality of services provided by these agencies. The use of goals, measures, and data to assess public services is called performance measurement (PM).

The field of PM developed from Ridley and Simon's 1943 book called *Measuring Municipal Activities*. Ridley and Simon discussed the need for measurement and suggested ways to monitor government activities. Several decades later, works by Hatry (Hatry & Fisk, 1971; Hatry, Winnie, & Fisk, 1973) and Epstein (1984) promoted measurement activities in local government. At the federal level, in 1993 Congress passed the Government Performance and Results Act, which required all Federal agencies to submit annual performance plans and reports (Groszyk, 1996). At the local level, measurement and government accountability were also key parts of the "reinventing government" movement that gathered momentum in the 1990's (Kearney & Scavo, 2001). Local governments became interested in measuring performance in order to improve services and document how public funds were spent. Since the 1990's, scholarly journals in political science and public administration have reflected the growing field of PM.

In the mid 1990's, prominent non-profit and government organizations began efforts to disseminate PM techniques to local governments. For example, in 1994 the International City Manager's Association (ICMA) began the Comparative Performance Measurement Program, a project involving 44 city and county governments that shared data on services

and programs in their communities (ICMA, 2000). By 2002, the project had grown to 130 jurisdictions that were using an electronic database for benchmarking and the identification of best practices (ICMA, 2002). As another example, in 1997 the Government Accounting Standards Board sponsored a project to help local governments develop and disseminate performance measures in budgeting, management, and reporting (GASB, 2002). In addition, the American Society for Public Administration launched the Center for Accountability and Performance in 1996 (ASPA, 2002) and the Institute of Government began the North Carolina Local Government Performance Measurement Project in 1995 (Institute of Government, 2002). Other prominent organizations promoting the use of performance measurement in local government include the National Center for Public Productivity (NCP, 1997) and the National Association of Counties (NACo, 1999). All of these organizations are trying to help local governments develop and use performance measurement techniques.

Many books, articles, and websites discuss *how* to use performance measures, and the need for performance measurement in local government is widely acknowledged. But the measurement of municipal activities remains complex, expensive, and difficult. Across local governments, PM adoption and use continues to vary widely. Despite many case studies and much descriptive research, knowledge about factors affecting the use of PM in local governments remains limited. Only a few inferential analyses have examined factors that affect PM adoption and use, and little is known about *why* some municipalities use performance measures whereas others do not.

### Context of Local Economic Development

Existing research on performance measurement focuses on the more concrete and well-established local government agencies such as fire and police departments, recreation, and waste removal. But local governments also perform many other functions including public health, public safety, and planning. More research is needed on PM in these and other departments. One area where PM has received little attention is economic development. Despite calls for increased scrutiny and accountability in economic development, few studies have examined the adoption and use of performance measures in local economic development agencies.

#### Local economic development: Stakeholders, goals and activities

The context of local economic development is one in which government officials, business leaders, and citizens debate how to use public dollars and goods. Most of these stakeholders would agree that the purpose of local economic development is to provide better jobs and wages for local citizens. However, stakeholders often disagree on the best ways to achieve this goal.

Even among economic development (ED) professionals there is uncertainty about how to create jobs, increase wages, and improve the local quality of life. In interviews with ED officials in small cities, Rubin (1988) found that ED practitioners themselves questioned whether their actions affected local economic development. Many ED practitioners also doubted whether cities and counties even had the capacity to change their local economies. As a result, ED practitioners felt they had little control over intended ED outcomes such as job creation and business relocation.

To deal with the ambiguity and uncertainty of their profession, ED practitioners used available economic development tools (Rubin, 1988). These ED tools included promotional

efforts such as advertising the city in trade magazines as well as business incentives such as grants, loans, and subsidized infrastructure or land. ED practitioners also acted as a liaison between public and private actors, and often “wined-and-dined” business leaders. In addition, ED practitioners fulfilled more routine tasks for businesses such as maintaining lists of development sites, identifying funding sources, and facilitating building permits.

Ironically, most ED practitioners doubted that these tools and activities were effective in improving the local economy (Rubin, 1988). But the activities provided visible products that appeased supervisors, board members, and local politicians. ED practitioners used the tools and activities in order to show progress, stay busy, and “do something.”

#### Why local governments pursue economic development

Although questions remain about the effectiveness of economic development (ED) tools, ED activity continues to grow. Scholars have offered theoretical explanations to account for ED activity, and most explanations are based in the fiscal needs of local governments. Molotch (1976) and Peterson (1981) both argued that cities pursue economic development because they need funding. Cities provide services to citizens, and those services require funding. Primary revenue for cities comes from the taxes paid by businesses and citizens. Thus the need for tax revenue to fund public services encourages city leaders to attract new businesses and employ local citizens.

Cities’ need for tax revenue results in a competition against other cities to attract businesses (Peterson, 1981). This inter-city competition unites local leaders to promote their city. According to Peterson’s city-limits theory (1981), promoting the city becomes the single, overriding, and unifying interest of local leaders. While many scholars disagree that city interests are unified, few researchers question the premise that fiscal needs create

an inter-city competition that encourages local leaders to promote their city and pursue businesses.

In addition to needing tax revenue, cities are also constrained by their geographic locations. Businesses and people can relocate to different areas, but cities cannot. Cities are tied to their geographic spaces and depend on the tax revenue provided by private wealth. These geographic and fiscal constraints put cities at a disadvantage when negotiating with businesses (Molotch, 1976).

Businesses benefit from the intensified land use that accompanies city growth (Molotch, 1976). As the concentration of people in a given area increases, so does the number of consumers, markets, and opportunities for businesses to profit. Business leaders are thus motivated to organize themselves into coalitions and influence local politics in a way that encourages the growth of a city. According to this “growth machine” ideology (Molotch, 1976), local elites persuade their local politicians to enact policies that promote city growth.

Businesses are not the only actors that can influence city growth. Citizens can also organize themselves into counter-coalitions that push for alternatives to the growth machine ideology (Molotch, 1976). Counter-coalitions support policies and projects that consider the social utility and consequences of ED efforts. For example, counter-coalitions to the growth machine might push for projects that minimize negative environmental impacts or provide living-wage jobs to citizens. Just as those who benefit from growth try to elect pro-growth politicians, counter-coalitions organize to elect progressive, “smart-growth” politicians who push for growth restrictions, moratoriums, or socially responsible growth. In both cases, pro-growth and smart-growth politicians pursue their policies in order to succeed politically (Schneider & Teske, 1993a, 1993b).

Stone (1989) observed the coalitions and counter-coalitions that emerge in local economic development and called them “urban regimes.” According to Stone, urban regimes consist of three primary groups: 1) business groups that push local governments to pursue pro-growth policies, 2) citizen groups whose agendas may be pro-growth or anti-growth, and 3) local government officials who seek visible ED projects that provide political rewards. Depending on the city and the development project, these groups or regimes may either compete against or cooperate with each other.

Other explanations of local economic development activity also exist. For example, Pagano and Bowman (1995) asserted that city image matters. Accordingly, local leaders compare their city to similar cities and engage in economic development to improve their cities’ standing. But most theories of local economic development emphasize the demographic and structural characteristics of the city. Articles on local economic development typically cite three theories: Peterson’s (1981) view of local leaders presenting a unified voice promoting the city, Molotch’s (1976) conception of the city as a growth machine, and Stone’s (1989) idea of competing urban regimes. All three perspectives emphasize how the fiscal needs and geographic limitations of cities affect the emergence of coalitions and consequent adoption of policies that promote or restrict growth.

#### Business incentives: Use, controversy, and the need for accountability

As scholars develop theories for why cities pursue economic development, they also note that a sharp rise in economic development activity has occurred over the past three decades. Since the 1970’s, the use of business incentives has increased dramatically (Chi, 1994), and most states and local governments now offer economic development incentives to businesses. Tax incentives are more common than financial incentives, and poorer cities

offer larger incentives (Rubin & Rubin, 1987). The South leads all US regions in the number and amount of incentive offerings (Chi, 1994).

As incentives have proliferated, controversy has grown over their use. Many government officials support incentives and view them as central to the health of the local economy. Job creation depends largely on business firms, and officials see business relocation as the key to providing better jobs to citizens. Proponents argue that unless local governments offer incentives to businesses, the firms will locate elsewhere and economic development will suffer.

In contrast, many citizens believe that large corporations do not need incentives (Poole, Erickcek, Iannone, McCrea, & Salem, 1999). Public policy organizations have questioned the wisdom of costly deals such as Alabama's \$253 million incentive package to Mercedes and Kentucky's \$300 million package to Toyota (LeRoy, 1994). The failure of some businesses to deliver on promised benefits has also raised controversy and prompted calls to evaluate incentive deals. In addition, academic research shows that incentives have little influence on industrial location decisions (Wolman & Spitzley, 1996). Critics of incentives argue that firm location decisions depend on other factors, such as the skill and cost of labor and the proximity to customers. They also note that incentives are expensive, funded by taxpayers, and deplete resources from other areas of government.

Given the controversy surrounding incentives, citizens, community groups, and public policy organizations are calling for reform (CFED, 1999; Grassroots Policy Project, Sugar Law Center for Economic and Social Justice, & Sustainable America, 1998; LeRoy, 1994). Many academics (Ledebur & Woodward, 1990) and some legislators (see Iannone & Spackman, 1999) also cite a need for reform. This diverse group of constituents is demanding clear benefits from companies that receive incentives. Increasingly, government

officials face pressure to use performance measures to evaluate incentives and hold companies accountable to the deals brokered under incentive packages.

Calls for reform and increased accountability have led to recommendations for policy changes in economic development. In 1990, Ledebur and Woodward suggested that municipalities take a legalistic stance toward business incentives. They identified penalties that policymakers can impose to reclaim public funds from businesses that receive incentives and then fail to deliver promised benefits. Similarly, in 1993 the National Governors Association passed a resolution stating that development agreements should include provisions for recouping subsidies when businesses fail to meet obligations. And in 1996, the National Council for Urban Economic Development recommended that practitioners use accountability tools and performance measures when offering incentives to businesses.

These recommendations have not been widely implemented, and the need for accountability persists. This need for accountability was widely publicized by a special issue of *Time* magazine, titled “What Corporate Welfare Costs” (Barlett & Steele, 1998), that documented numerous cases of businesses nationwide receiving billions of dollars in government subsidies with little public benefit and no accountability. To heighten awareness of incentive problems and discuss potential solutions, in 1999 the Corporation for Enterprise Development launched the Business Incentives Reform Clearinghouse, a website to disseminate ideas for holding incentives to higher standards of accountability (CFED, 1999). As these examples show, there is a growing public awareness of the need for increased accountability in economic development.

## Performance Measurement in Local Economic Development: The Current Study

Accountability in public agencies requires performance measurement data that tracks how public funds are spent. In the area of economic development, many local governments have responded to calls for increased accountability by using performance measures. Before offering incentives to businesses, some municipalities now evaluate the impact of firm location by considering cost-benefit analysis, job quality and security for local residents, and expansion of the local tax-base. Other municipalities keep track of incentive costs and benefits as they evolve longitudinally. Use of such performance measures helps municipalities decide whether or not subsidizing a given firm is a wise investment for local residents.

But not all municipalities use performance measures to evaluate their ED programs, and the reason for variation in PM use is not well understood. Despite calls for increased accountability in ED and a growing movement toward using PM in local government agencies, *performance measurement within local economic development* has received little empirical attention. This study examines how and why the use of performance measurement in local economic development differs across municipalities.

### Definitions and terminology

#### Defining performance measurement

Public agencies measure performance in several ways: amount of inputs and outputs, degree of efficiency, and type of outcomes. Input or resource measures describe the amount of human or financial resources used to perform a service. Output or workload indicators refer to the amount of work performed. The ratio of outputs to inputs provides a measure of efficiency. Cost-benefit analysis, for example, is an efficiency indicator.

Outcome or effectiveness indicators show the degree to which service goals and objectives are reached.

Other types of performance measures also exist. Citizen surveys often provide a basis for quality and satisfaction measures. Some experts consider quality and satisfaction as indicators of effectiveness while others view them as unique types of performance measures. Productivity indicators are another, less common performance measure sometimes found in the literature (Ammons, 1995). Productivity indicators combine measures of efficiency and effectiveness into a single indicator. Finally, explanatory information can account for unusual circumstances that affect performance. As an example of unusual circumstances, extreme weather conditions may affect the performance of road maintenance crews. Explanatory information provides a way to consider environmental factors that may affect PM data.

Although a few studies of PM consider satisfaction, quality, and explanatory information, most of the research concentrates on simpler indicators such as inputs, outputs, and outcomes. The simplest of all indicators, input measures, have been criticized as mere “bean-counting” exercises that say nothing about the quality or effectiveness of a service (Ammons, 2001, p. 2). Instead of input measures, Ammons (2001) advocates using efficiency and effectiveness measures, and then comparing such measures with results from similar jurisdictions elsewhere. This comparative approach is called benchmarking,

Benchmarking with other jurisdictions is desirable, but it first requires the collection of performance measures. Even for the simplest and most basic indicators there is wide variation in local governments’ use of performance measures, especially in the area of economic development. While future research should examine benchmarking in economic

development, in this study I focus on the two most useful types of performance measures: effectiveness and efficiency indicators.

### Defining local economic development

As a second parameter, I limit this study to local economic development efforts. The term, “local,” refers to sub-state activities. I exclude economic development efforts at the state, federal, and international levels. Some of the literature on local economic development concerns county governments, but the research is largely based in urban settings and most of the studies use cities as their level of analysis. For this study, the term, “local,” denotes city and county governments.

Compared to the term, “local,” the term, “economic development,” is more difficult to define. Economic development activities range from residential land projects to changes in income and employment to the focus of this study – the policy choices of local governments.

Given the wide variety of ED activities, it is unfortunate that researchers often neglect to define economic development. Many researchers also confuse the term, “economic growth,” with that of “economic development” (Wolman & Spitzley, 1996). Whereas economic *growth* means increased output such as more jobs, economic *development* refers to increases in the employment levels and per capita income of area residents. Goetz (1990) observed the differences between growth and development policies and derived a categorization for economic development activities.

Noting the large number of ED activities that exist, Goetz (1990) tried to make sense of local ED policies by categorizing them according to their intended outcome or purpose. According to Goetz, traditional or Type I policies attempt to increase private-sector development in the local economy. With the traditional Type I policies, the public

sector facilitates private investment by creating business advisory councils, providing technical assistance, or attracting investors through incentives. Type I policies are considered distributive policies because they do not target any specific segment of the population. Traditional or Type I policies reflect a pro-growth ideology that assumes that private investment increases the well being of all area residents.

In contrast, progressive or Type II policies question the benevolence of government investments in the private sector. Type II policies are concerned with equity and directing growth-related benefits to low-income groups. Some Type II policies require that public investment in the private sector result in tangible public benefits such as job creation or increased wage levels. Because Type II policies attempt to re-distribute wealth by targeting specific geographic areas or disadvantaged populations, they are considered re-distributive and progressive policies.

For purposes of this study, local economic development involves both the Type I and Type II policies of local governments. I review the ED literature in a broad and inclusive manner, and I cover the field of local economic development policymaking as it has evolved. My review focuses on multivariate studies that predict cities' adoption and use of economic development policies.

### Research perspectives

In this study I call upon two perspectives common in social science research – structuralism vs. agency. I consider how the structure and agency perspectives relate to other theories in economic development, and I examine how each perspective helps explain the use of PM in local ED.

### Structural determinism versus agency choices

A fundamental theme characterizes policy research in local economic development: structure versus agency. The structural perspective asserts that the fiscal needs and geographic limitations of cities determine ED activities and policies (Hammer & Green, 1996). According to structuralists, local economic development is primarily affected by the existing demographic, socioeconomic and fiscal conditions of the community. From the structural perspective, “forces beyond the control of a municipality determine the local government’s behavior” (Hammer & Green, 1996, p. 333). Consequently, local actors have little control over economic development.

In contrast, the agency perspective emphasizes that local actors do affect development policies (Fleischmann, Green, & Kwong, 1991). According to the agency perspective, “politics matter” in the shaping of local development policies. Agency variables include the organizational arrangements of ED decision-making, the local political structure, and the participation and impact of elected officials, businesses, and citizen groups.

The two perspectives are distinguished by the concept of local control. Structure refers to existing socioeconomic conditions that cannot be controlled or easily influenced. Agency describes stable but malleable organizational and political arrangements as well as the participation and activism of interest groups.

The structure and agency perspectives recur throughout the literature on local economic development, and the extent to which local ED policies result from structure or agency is an ongoing debate. Most of the debate has been theoretical rather than empirical, and only a few studies have explicitly compared the perspectives using an empirical, quantitative approach (see Fleischmann et al., 1991; Hammer & Green, 1996).

The structure-versus-agency debate raises broader questions of choice versus determinism. By definition, local actors influence agency, and thus agency reflects local *choices*. In contrast, local actors have little influence over existing structural conditions, and consequently structure reflects *determinism*.

The degree to which local policies are chosen (agency) rather than determined (structure) is the central question for this study. Most broadly, this study asks, “To what extent do municipal accountability policies reflect local community choices rather than existing structural conditions?” I incorporate the two perspectives – agency choices vs. structural determinism – as an underlying framework throughout the following study.

Initially, I review the empirical literature on local government policymaking in economic development and performance measurement. I then pose research questions about structure and agency factors that affect the use of performance measures. I test my hypotheses on a database of local economic development agencies in cities nationwide. I conclude with implications for the structure and agency perspectives, as well as the city limits and urban regime theories.

## II. EMPIRICAL LITERATURE REVIEW: USE OF PERFORMANCE MEASURES AND ECONOMIC DEVELOPMENT POLICIES IN LOCAL GOVERNMENT

### Outline of the Literature Review

Using the structure and agency perspectives (see page 13), this chapter reviews the literature on local government policy adoption in the areas of economic development (ED) and performance measurement (PM). Only empirical studies are reviewed, and the review focuses on inferential studies that specify causal relations between variables. The first section reviews studies on the adoption of ED policies. This literature includes Type I and Type II policies and pertains only to the economic development decisions of local governments. In contrast, the second section reviews the adoption of PM across multiple agencies of local government. Thus the first section focuses on a single municipal function, economic development, while the second section considers the adoption of PM across many municipal functions. The summary bridges these two literatures and shows that while ED and PM have their own literatures, *performance measurement within economic development* has received little empirical attention.

### Economic Development Policy Adoption

Much of the literature on local economic development focuses on policy adoption. Some studies examine traditional Type I ED policies that promote growth over development while other studies predict the adoption of progressive Type II ED policies that have redistributive consequences. This section reviews empirical literature on the adoption of traditional and progressive local ED policies before turning to three studies related to PM within local ED.

### Traditional Type I economic development policies

From its roots in the 1980's, the literature on ED policy adoption has focused on attempts to encourage private sector investment and increase growth. While not directly related to performance measurement, this literature on traditional ED policies is critical to understanding the use of PM within the local economic development context.

Several studies have used factor analytic techniques to categorize the growth-oriented Type I ED activities and policies. Examples of such categories include infrastructure developments, zoning policies, marketing activities, loans, and financial incentives (Reese, 1993). Much less attention has been given to how incentives vary in terms of their cost, complexity, and communicability. One exception is a study by Rubin and Rubin (1987).

Data for Rubin and Rubin's (1987) study came from a survey of 178 small cities in Illinois. Seven indices were constructed from incentives such as direct financial loans and grants, tax increment financing, industrial revenue bonds, subsidized water rates, and road and sewer improvements. Rubin and Rubin (1987) categorized these incentives according to three dimensions: 1) direct cost to the city, 2) degree of openness to the public, and 3) degree of administrative capacity required for implementation.

Descriptive findings revealed that cheaper and simpler incentives were used more often than expensive and more complex incentives. Incentives that were hidden in the city's budget were also used more frequently than those incentives that were more easily communicated to the public. As noted by the researchers, "the least common incentives are the ones that cost the city in direct, easily calculable, and public ways (Rubin & Rubin, 1987, pg.45)." Rubin and Rubin's findings underscore the importance of accounting for variations in the characteristics of the incentives and ED activities provided by local governments.

Rubin and Rubin (1987) also tested explanations for cities' use of incentives. In a bivariate correlation analysis, Rubin and Rubin (1987) examined how the use incentives varied according to residential need (poverty, income, unemployment, percent of commuters), fiscal need (tax rate, per capita valuation), political structure, bureaucratic capacity (number of municipal functions, population size, home-rule legal powers), and the process of growth (population growth, housing construction).

The findings showed that business incentives were positively associated with population size, residential stability, and technical capacity (i.e. number of municipal functions). Cities high in commuters were less likely to offer incentives. In addition, cities spending the most money on incentives had higher levels of unemployment and poverty, and lower levels of personal income, housing value, and housing growth. Thus, poorer cities spent more of their money on incentives than wealthier cities.

Rubin and Rubin's (1987) study was limited by a bivariate rather than multivariate approach that did not control for the effects of competing independent variables (Sharp, 1991). In addition, the study focused on structural characteristics and neglected most agency variables. Still, the findings indicated that cities were more likely to use those incentives that were free (i.e. federally subsidized) and hidden from public scrutiny. Cities with high levels of poverty and unemployment were also more likely to use incentives.

Rubin (1986) also authored one of the first multivariate studies of local economic development policies. Data came from interviews with mayors and ED officials in small Illinois cities. The dependent variable was an additive index of 18 pro-growth ED actions. Exogenous variables included structural demographic (percent of commuters) and economic/fiscal (income, tax rate) indicators. Several agency variables were also tested: political structure (form-of-government), the presence of an ED organization, and officials' attitudes toward ED. Officials'

attitudes consisted of three scales: *sense of control* over local economic development, *involvement* of business and government in ED efforts, and the perceived *urgency* of ED issues facing the city.

Results of a two-stage path analytic model emphasized the role of agency variables. Direct effects on ED actions included the presence of an ED organization, officials' sense of urgency about ED issues, and the degree of involvement between business and government. Several indirect effects were also apparent. The presence of an ED organization mediated the impact of commuters and business-government involvement. Officials' sense of urgency for ED mediated the impact of income and tax rate on ED actions. Finally, business-government involvement mediated sense of control over ED issues.

Rubin (1986) collected data on several structural variables (unemployment, population change, housing construction) that were excluded in the multivariate analysis. No rationale was given for omitting the variables, and a trimming approach (i.e., excluding non-significant predictors) was not described. Results showed that the presence of a local ED organization increased the number of pro-growth actions taken by cities. This effect of centralization or formal organization was evident over and above the impact of demographic and fiscal conditions. In addition, the findings showed that pro-growth attitudes of government officials positively influenced the number of ED actions taken in a city. Overall, Rubin's study (1986) supported agency variables by showing the role of formal organization and ED attitudes. Yet the omission of important structural variables tempers the general finding that agency had a greater impact on policy adoption than structure.

Another study also examined how organizational structure affected the adoption of local ED policies (Green & Fleischmann, 1989). Data came from the 1980 census and a 1984 International City Manager's Association (ICMA) survey mailed to city managers and chief

administrative officers. Green and Fleishman (1989) asked respondents to indicate who was the city's primary ED actor. Most cities (89%) performed ED in a decentralized manner such as relying on the city manager to carry out ED activities or housing ED activities within another department such as housing or community development. Only 11% of cities centralized ED activities within a separate and distinct city department. Cities that centralized ED activities were more than twice as likely to have adopted ED plans and activities.

Two organizational variables – *centralization* and the cities' *primary ED actor* (i.e. city government, local development organizations, or private business) – were further examined in a multivariate analysis that controlled for population size, percent minority, and percent of work force in manufacturing. The dependent variables indicated whether or not cities had adopted twelve separate ED activities. Six of the twelve models showed positive effects for centralizing ED activities in a separate city department. In terms of cities' primary ED actor, only three of the twelve models showed an effect. Across the models, the cities' primary ED actor showed weak, inconsistent, and largely non-significant effects. For the control variables, population size and poverty had consistent positive effects on ED activities while percent of the work force in manufacturing had mixed effects.

Overall, Green and Fleishman's (1989) findings support both the structure and agency perspectives. The analysis showed the strongest effects for the structural factors of population and poverty, and provided mixed findings for the agency construct of organizational structure. Centralization of ED activities had positive effects on the adoption of ED activities in half of the models whereas the impact of the cities' primary ED actor was negligible or inconsistent.

In a later study, Green and Fleishman (1991) examined how the adoption of ED policies differed by type of municipality. Noting that suburbs are adjacent to larger cities and have more affluent populations than central cities and non-metropolitan communities, Green and Fleishman

(1991) reasoned that suburban areas have less need for economic development. In contrast, central cities are more likely to promote ED because they face pressures of urban blight and poverty. Central cities also have business coalitions and growth-oriented ideologies that favor ED policies. In addition, central cities have a greater concentration of resources and more administrative capacity to use a wider array of ED policies. Thus, Green and Fleishman predicted that officials from central cities would pursue more ED policies than those from suburban and non-metropolitan communities.

Green and Fleishman (1991) expected that other factors would also affect ED policy adoption. Noting that the form of local government can play a role, Green and Fleishman predicted that the presence of a council-manager would affect ED policy adoption. Policies of nearby cities also matter and thus regional competition should increase ED policy usage. In addition, participation by business elites and local government could have an impact. When local government (rather than business) led ED efforts, cities should adopt more ED policies. Finally, demographic variables should play a role: more populous communities with higher poverty, minority populations, and manufacturing jobs should adopt more ED policies.

Data came from a survey conducted by a 1984 ICMA survey to officials in all cities nationwide with populations between 10,000 and 250,000. Officials were asked whether or not their cities adopted various economic development activities, and an additive index was constructed as the dependent variable. The higher the score, the more policies a community used to promote economic development.

Green and Fleishman's (1991) findings supported the predicted impact of municipality type: suburban communities adopted the fewest economic development policies, followed by non-metropolitan communities and central cities. Separate regression equations were then run for the three types of municipalities. Comparison of results across the suburban, non-metropolitan,

and central city models showed that the structural predictors of population size and regional competition had large and consistent impacts. The effect of regional competition on ED policy adoption suggested that policies diffuse between cities. When officials in a city adopt new ED policies, nearby cities soon follow and adopt similar policies. In addition, two models showed higher adoption rates when city government (rather than business) led ED efforts. This finding supports the agency perspective and shows that local government involvement increases ED policy adoption. Overall, Green and Fleishman's (1991) results showed that municipality type, population size, regional competition, and participation by local government consistently predicted the adoption of Type I ED policies.

Extending their earlier work, Fleishman, Green and Wong (1991) used a similar approach to study how structure and agency variables affected the adoption of ED policies. Using data from a 1984 ICMA survey, the researchers constructed an additive index and found that cities adopted an average of 18 of the 64 ED policies. Structural variables consisted of the city's tax revenues and debt, percentage of manufacturing jobs, the type of city (central, suburban, and non-metropolitan), the city's population, the change in population from 1970-1980, the percent of intergovernmental revenue, and regional competition (i.e. mean number of ED policies used by adjacent cities). Several agency variables were also examined: form of local government (mayor or city manager), lead actors on development issues (city government, development corporations, or private business), size of the city's bureaucracy, whether or not the city had a specialized economic development agency, and whether or not the city had a plan for economic development.

Regressing the index of 64 ED policies showed effects for both the structure and agency variables. For the structural variables, the type of city had an effect: central and non-metropolitan cities adopted significantly more policies than suburban cities. Regional competition, population size, and local poverty also increased policy adoption. For the agency variables, policy adoption

was more likely when city government rather than private business was the lead actor in development issues. Cities that had more bureaucratic size, a specialized ED agency, and a plan for economic development adopted more ED policies. The per capita property tax revenue also increased ED policies.

Some of the variables in Fleishman, Green and Wong's (1991) study were poor measures of theory. For example, the researchers tried to account for the role of citizen influence by measuring tax revenues and debt, but tax revenues and debt are poor proxies for citizen influence. Despite this limitation, the study shows that ED policy adoption is influenced by structural factors such as city type, population size, and poverty levels. In addition, the positive impact of regional competition corroborates Green and Fleishman's (1991) earlier findings and supports the idea of policy diffusion: cities adopt ED policies to stay competitive with nearby cities.

In another multivariate test of ED policy adoption, Clingermayer & Feiock (1990) surveyed large U.S. cities and asked officials about the ED policies their cities used between 1980 and 1985. Five policies were examined: industrial development bonds, urban development action grants, national advertising, business assistance centers, and tax abatements. Clingermayer & Feiock (1990) tested how these five policies varied according to structure (economic need) and agency (interest group actions, institutional form-of-government) explanations.

Logistic models regressed each of the five policies on the economic need, interest group, and institutional explanations. Across the five policies, findings showed that as cities' economic need increased, economic development policy adoption was more likely. For the interest group variables, civic and elite groups and media support positively affected policy adoption, while neighborhood groups had mostly negative effects. The institutional perspective showed that policy adoption was predicted by mayor-council rather than council-manager form of government and ward rather than at-large representation.

Clingermayer & Feiock (1990) constricted variance in many of the predictors by turning ordinal measures into dichotomous variables. The researchers did not present descriptive statistics for the independent variables, and their rationale for constricting variance was not made clear. Still, their research showed that both structure (economic need) and agency (institutional form of government, interest groups) affected policy adoption. The impact of mayor-council and ward representation indicates that ED research should account for local government structure. In addition, the positive impact of the media, elites, and civic groups, coupled with the negative impact of neighborhood groups, supports the idea that growth machine coalitions shape development policy.

Clingermayer & Feiock (1990) studied how the presence of neighborhood and development groups affected ED policy adoption, but Donovan (1993) used a better and more insightful measure. Donovan observed that theorists were divided on whether or not local economic development was a consensual or controversial process. From Peterson's (1981) structural perspective (see page 4), cities have a unitary interest in promoting development that overrides dissenting voices. Yet case studies illustrated that citizen opposition curbs local development and that agency can overcome structural constraints. Donovan (1993) examined these mixed views on the role of conflict in ED by testing whether or not community controversy over development issues would affect the adoption of local ED policies.

Data came from a survey of small municipalities in southern California. Donovan (1993) tested a path analysis structural equation model and the major endogenous variable consisted of an index summing the adoption decisions of 26 ED policies. The community controversy measure asked local ED officials to rate the degree of controversy over ED issues, and responses showed substantial variation (19% indicated not at all controversial, 45% sometimes controversial, 28% often controversial, 8% always controversial).

Findings showed that community controversy negatively affected the adoption of pro-growth ED policies. Only one other agency variable had a direct effect: an organizational measure of centralized decision-making. This measure showed that when the mayor/city manager (rather than a separate ED agency) held the authority for ED policymaking, policy adoption was lower. This finding supports previous research showing that centralizing ED decision-making within a separate department facilitates ED policy adoption. Other direct effects on ED policy adoption consisted of structural variables: city land area (+), city age (+), commuters (+), income (-), and homeownership (+). These structural findings indicate that characteristics of the city (age and size) can affect policy adoption.

A major limitation of Donovan's (1993) study is that a complex phenomenon, community controversy, was measured through a single indicator asked only of ED officials (Wolman & Spitzley, 1996). Another weakness is that the data in Donovan's study came from cities in a high-growth area of California, and the degree to which the findings generalize to other U.S. cities is not clear. Still, Donovan's (1993) findings provide strong evidence against Peterson's (1981) vision of local economic development policymaking as unitary and unaffected by dissenting views. In fact, Donovan's findings support the role of agency by showing that community controversy can negatively affect the adoption of local ED policies.

A later study also examined the contribution of structure and agency variables to ED policy adoption (Hammer & Green, 1996). Data came from a survey of local government officials in Wisconsin, and the dependent variable consisted of an additive scale of ED activities. The research compared the variation explained by variables from the structure and agency perspectives.

Results of regression analysis showed that ED policy adoption was positively affected by two structural variables: income and a population/employment/poverty/education factor.

Findings from the agency factors showed that when local government or public/private organizations (rather than private entities) were the most active promoter of local ED efforts, policy adoption was more likely. Policy adoption also increased with the degree of political pressure on local officials to create jobs in the community. In addition, the results also showed that the agency variables explained almost twice as much variation as the structural variables.

Hammer and Green's (1996) model did not account for organizational factors (e.g., staff size, resources, technical capacity, and decision making) or institutional political arrangements. In addition, measuring political pressure through a single question oversimplified a complex phenomenon. Nonetheless, the study provides a useful comparison of structure and agency variables. Even with the omission of organizational characteristics, the agency perspective explained twice as much variation as the structural perspective. This difference in explanatory power underscores the role of agency in ED policy adoption.

A more recent study neglected citizen and community sentiments toward development, but provided a more stringent test of organizational and structural variables. Feiock and Kim (2001) examined how bureaucratic and institutional factors affected the adoption of pro-growth ED policies. Data came from cities that responded to ICMA's 1984 and 1989 economic development surveys. Feiock and Kim combined Type I policies into two additive indices of ED policy adoption.

Use of the 1984 data permitted Feiock and Kim (2001) to control for existing policies while testing for policy adoption between 1984 and 1989. Structural variables included population, population change, poverty, and type of city (suburban vs. central and independent cities). Agency variables consisted of organizational arrangements and political structure. Specifically, Feiock and Kim studied whether or not local government (rather than a quasi-public or private organization) was the most active proponent of development. Another organizational

measure examined the centralization of decision-making through a specialized ED agency. Finally, the researchers predicted that adoption of a strategic ED plan (a measure of formalized organizational procedures) would constrain growth-oriented policies, and that this effect would be more pronounced in cities with a council-manager rather than mayor-council form-of-government.

Regression analysis showed that neither the organizational nor institutional variables were significant in the main effects model. The only direct impacts on ED policy adoption consisted of three structural variables: existing 1984 policies (+), poverty (+), and suburban cities (-). The 1984 policies were the strongest predictor of 1989 policies (Feiock & Kim, 2001).

While the main effects model did not support many of the expected relationships, a subsequent model showed an interaction for institutional form: in council-manager cities, strategic planning negatively affected policy adoption. The interaction also showed that population (+), population decline (+) and type of city (suburban –) influenced policy adoption in mayor-council cities (but not in council-manager cities), whereas poverty (+) affected only council-manager cities. Existing 1984 policies were significant in both forms of government. The interactive model shows that the local form of government can impact how other variables affect policy adoption.

Feiock and Kim's (2001) analysis added methodological rigor by controlling for the effect of previously adopted policies, but the study did not account for structural variables such as regional competition and the education and occupation of citizens. Agency variables such as organizational resources (e.g., staff size and budget) and citizen participation were also neglected. Despite these omissions, the findings show a positive impact for poverty and city type and highlight the interactive effect of the local form-of-government: the effect of strategic planning

and community characteristics on ED policy adoption depended on whether a municipality had a mayor-council or council-manager form-of-government.

### Summary of Traditional Type I Policy Adoption

Studies of traditional ED policy adoption have tended toward explanations based on structure rather than agency. In terms of structural demographic findings, population size was the most consistent predictor across studies. Growth (both population growth and economic growth) was non-significant in three studies (Donovan, 1993; Fleischmann et al., 1991; Green & Fleischmann, 1991), yet Rubin & Rubin (1987) and Feiock & Kim (2001) reported negative effects. Mixed and contrasting results were also found for commuters and suburban cities. Suburban cities, which have more commuters, were less likely to adopt ED policies in two studies (Feiock & Kim, 2001; Fleischmann et al., 1991), but other studies found that the presence of commuters had mixed effects on ED policy adoption (Donovan, 1993; Rubin, 1986; Rubin & Rubin, 1987).

Socioeconomic variables produced mixed findings. Poverty had positive effects across the studies, but other fiscal indicators were less consistent. Income had positive effects in two studies (Hammer & Green, 1996; Rubin, 1986) yet negative effects in two others (Clingermayer & Feiock, 1990; Donovan, 1993). Housing-value also had mixed effects (Clingermayer & Feiock, 1990; Rubin & Rubin, 1987). Other fiscal measures (unemployment, tax rate) generally showed that as residential need increased, so did ED policy adoption.

Other socioeconomic indicators were measured less frequently. Occupational status was measured through the percentage of workforce in professional jobs (Donovan, 1993) and in manufacturing (Fleischmann et al., 1991; Green & Fleischmann, 1989, 1991; Green, Fleischmann, & Kwong, 1996). The effect of occupational status was inconsistent or negligible.

Education level (Hammer & Green, 1996) and homeownership (Donovan, 1993) were both measured in just one study and found to have positive effects.

Another structural measure consisted of regional competition. Two multivariate studies showed that Type I policy adoption increased as a function of adjacent cities adopting policies (Fleischmann et al., 1991; Green & Fleischmann, 1991). In addition, Chi (1994) noted that the use of incentives is higher in the south. Both of these findings support the idea of policy diffusion: cities adopt ED policies to stay competitive with nearby cities and thus ED policies diffuse regionally.

In terms of the agency perspective, organizational explanations of traditional Type I policies neglected basic resource variables such as staff size, professional training, and the economic development budget. The studies also failed to measure how ED policy adoption might be affected by the organizational culture of the ED agency or the broader municipal government. The attitudes of agency staff were unexplored except for Rubin's (1986) finding that sense-of-urgency for results increased ED policy adoption.

Organizational explanations focused on centralized decision-making, formalized ED planning, and technical capacity. Several studies found that centralization of decision-making within a separate ED agency increased policy adoption (Fleischmann et al., 1991; Green & Fleischmann, 1989; Rubin, 1986). Two studies showed that when cities had a written plan for ED, they were more likely to adopt ED policies (Feiock & Kim, 2001; Fleischmann et al., 1991). Finally, two studies found that policy adoption increased with technical capacity as measured by the number of municipal functions (Rubin & Rubin, 1987) and the size of the city workforce (Fleischmann et al., 1991).

Another measure identified the most active proponent of economic development – government, business, or citizens. Although several models showed non-significant (Feiock &

Kim, 2001) or mixed (Green & Fleischmann, 1989, 1991) results for the most active ED proponent, other studies showed that policy adoption was more likely when local government was the most active proponent (Fleischmann et al., 1991; Hammer & Green, 1996). Conversely, when private business was the most active proponent, policy adoption was less likely (Green & Fleischmann, 1991; Hammer & Green, 1996). Private business may have been wary of incentives given their competitive unfairness to existing business or their ineffectiveness in influencing business relocation decisions. In contrast, local governments and development corporations may have been more eager to use the tools made available to them.

Findings from the institutional political structure variables showed that form-of-government had non-significant main effects in most studies. However, two studies showed opposite effects for mayor-council form-of-government (Clingermayer & Feiock, 1990; Donovan, 1993), and another study described an interaction where the effect of independent variables (type-of-city, population growth, poverty, ED plan) depended on the local form-of-government (Feiock & Kim, 2001). Other political structure variables (mayoral veto, partisan elections, and ward vs. at-large elections) had positive effects in one study (Clingermayer & Feiock, 1990) but were not explored in other research.

External or community forces had mixed effects on Type I ED policy adoption. The effect of business involvement was inconsistent (Clingermayer & Feiock, 1990; Donovan, 1993; Rubin, 1986), whereas the impact of active neighborhood groups was negative (Clingermayer & Feiock, 1990; Donovan, 1993). Other studies moved beyond mere participation indicators. The political pressure to create jobs (Hammer & Green, 1996) and the degree of community controversy (Donovan, 1993) were conceptually better measures than simply identifying what groups participated in economic development decisions. Both political pressure and community controversy positively affected Type I policy adoption.

Several conclusions can be drawn from the literature on Type I or growth-oriented ED policy adoption. First, the literature is biased toward explanations based on structure rather than agency. Second, the structural variables emphasize the impact of population size and poverty levels, yet the inconsistent effects of income, city-type, and commuter workforce also deserve attention. Third, findings from the agency perspective indicate a neglect of crucial organizational variables such as staff size and resource allocation, as well as attitudinal indicators of organizational culture. Fourth, findings from organizational variables do indicate that ED policy adoption is positively influenced by technical capacity, centralized decision-making, the existence of an ED plan, and government (rather than business) as most active ED proponent. Fifth, findings on institutional political structure focus on form-of-government to the neglect of other institutional variables (e.g. mayoral power, partisan elections). As a main effect, form-of-government has a mixed and largely non-significant impact, but one study suggests an interaction where the impact of other predictors depends on the local form-of-government. Finally, whether or not neighborhood and business groups participate in ED decisions appears less important to policy adoption than whether or not these groups introduce controversy and conflict into local development issues.

Overall, then, several variables show consistent effects. Type I growth-oriented policy adoption was positively affected by population size, poverty, technical capacity, centralized decision-making, formalized ED planning, and local government as the most active ED proponent. Neighborhood controversy and conflict negatively affected Type I policy adoption.

#### Progressive Type II economic development policies

While much of the research on local economic development has focused on growth-oriented Type I policies, more recent studies have examined Type II policies that emphasize

development rather than growth. This section reviews empirical studies on the adoption of progressive Type II policies in local governments.

### Type II policies

Goetz (1990) examined the use of Type II policies in US jurisdictions and tested two hypotheses. Theorizing that community advocates and coalitions would push for the more progressive Type II policies, Goetz predicted that community-based political activity would affect Type II policy adoption. Goetz also reasoned that Type II policies might convey an anti-business climate and discourage private sector investment. Because poorer cities have a greater need for private sector investment, they would be less likely to adopt Type II policies. Conversely, wealthier cities hold a competitive advantage and can better afford the policies. Thus, adoption of Type II policies should be associated with cities' economic and fiscal vitality.

Goetz (1990) tested these hypotheses with data from 281 ED officials in U.S. cities and counties. Goetz constructed a frequency-of-use scale from seven Type II policies (e.g. developer contributions for transportation; provision of social services by developers), and regressed the scale on structural (demographics, economic and fiscal conditions) and agency (political activity) variables.

Goetz's (1990) found that population size was the strongest predictor of Type II policy use and that cities (rather than counties) were more likely to use the progressive policies. In terms of hypothesis testing, the findings supported the first prediction: community-based political activity influenced the use of progressive ED policies. However, the second hypothesis was not supported: fiscal and economic conditions were unrelated to Type II policy adoption. In fact, the findings showed an unexpectedly negative effect for a traditional indicator of local vitality: population growth. Type II policies were actually more likely in slow-growth rather than fast-growth jurisdictions.

In a later study, Goetz (1994) examined how progressive ED policies were affected by structural conditions (fiscal and economic indicators, population size) and agency variables (political activism, bureaucratic experience, and political culture). The dependent variable was a frequency-of-use likert-scale constructed from seven Type II policies. Data came a survey of 71 U.S. cities.

Regression analysis showed that use of progressive ED policies was *not* influenced by municipal fiscal conditions (debt and bond rating), bureaucratic experience (annual federal grants), and population size (Goetz, 1994). Significant positive effects of Type II policies were found for income, poverty, pro-business climate, and political activism, a political culture that supports government intervention. Noting that both income and poverty had positive effects, Goetz (1994) combined the variables and created a measure of inequality that was significant in a second model. The positive effects of inequality, political activism, and political culture were roughly the same magnitude and twice that of business climate.

Goetz's (1990; 1994) findings carry several implications. In terms of structural variables, the findings suggest that the degree of inequality in a city positively affects the use of progressive ED policies. Agency findings indicate that community activism and a political culture favoring government intervention both shape Type II policies, but the studies did not account for several structural (regional competition, education level, occupational status) and agency variables (political institutional structure and organizational variables such as resources and staff size). Overall, Goetz's findings underscore the role of external agency forces (political activism, political culture).

Following Goetz's research, Elkins (1995) also examined the adoption of progressive Type II policies. Data came from a survey of chambers of commerce directors in cities nationwide. To measure Type II policies, Elkins asked directors whether or not their cities

required developers to 1) create low/middle income housing with new developments, 2) contribute to educational programs, 3) pay impact fees, 4) hire a proportion of city citizens as employees, 5) hire a proportion of the city's minorities, and 6) create building facades. Elkins theorized that Type II policy adoption would be a function of population size and growth, region of the U.S., community socioeconomic status, fiscal health, economic distress, land-value, neighborhood activism, and minority political representation.

Results of logistic regression models showed consistent results for structural predictors. Across the six Type II policies, population size was not significant and region affected all six policies: cities in the western part of the U.S. were more likely to adopt Type II policies (Elkins, 1995). Fiscal measures (socioeconomic status, unemployment, land value) had positive effects in five of the six models. Effects of agency variables were less consistent. Minority political representation positively influenced the use of two requirements (hiring city citizens and minorities). Neighborhood activism also positively affected two policies (low-income housing and minority hiring requirements).

One weakness of Elkins' (1995) study lies in the method of surveying chambers of commerce. As Elkins notes, these organizations are biased toward business interests and consider development in terms of regional rather than city boundaries. In addition, one of the policies (requiring building facades) did not fall under the definition of a Type II policy. And because the policies were tested separately rather than combined to form a single index, generalization to all Type II policies is more complicated.

Despite these weaknesses, Elkins' (1995) results are noteworthy. In terms of structural predictors, the non-significant findings for population size contrast sharply with other research. However, the consistent effect of U.S. region supports the idea that progressive policies diffuse

regionally. Fiscal indicators were also important, and notable agency variables included minority political representation and neighborhood activism.

Building on the research of Goetz and Elkins, Reese (1998) asked officials in cities near the U.S./Canadian border about their use of six Type II policies: local employment requirements, minority employment requirements, worker training requirements, performance guarantees, low-income housing regulations, and targeted wage subsidies. Reese combined these policies and hypothesized that the Type II index would be positively influenced by two major factors: fiscal health/stress (income, poverty, and unemployment – a structural construct) and community input (participation in local planning decisions presence of pro-growth vs. anti-growth groups – an agency construct).

Factor analysis of community input revealed two factors: neighborhood input and business input. Reese expected that fiscal stress and neighborhood input would positively affect Type II policies while business input would have a negative effect. Control variables included minority population, intercity competition, political institutional structure, organizational resources, professionalism, planning & evaluation, and decision-making processes.

Regression analysis did not support the hypothesized effects of community input, race, government structure, professionalism, and competition. Only residential need (+), resources (+), and planning-and-evaluation (+) influenced the Type II policy index. Unfortunately, the regression models did not control for population size, and the measurement and construction of some variables was not well documented. The findings do indicate that both structure (residential need) and agency (resources, planning-and-evaluation) variables affect Type II policy adoption. The study adds to the literature by showing that planning-and-evaluation can affect Type II policy adoption.

In a more recent study of Type II policy use, Martin (2001) examined the diffusion of living-wage ordinances in US cities from 1994 to 1999. Living-wage ordinances require that public employees of a local government receive an hourly wage that exceeds the federal minimum wage and provides an income above the regional poverty level. Martin tested how unions and labor organizations might influence living-wage ordinance.

Results of logistic regression showed that the passage of living wage policies was associated with region (less likely in the South), population size (+), democratic vote (+), and the interaction of unionization and a labor organization (Martin, 2001). The interaction showed that the combination of unionization and labor organization had a greater positive effect on the passage of living-wage policies than when each policy were entered as a separate main effect. Non-significant findings included poverty, racial composition, privatization spending, and the per capita number of community and business organizations.

Martin (2001) studied only one specific Type II policy, but the findings add to the existing research on progressive policy adoption. For the structural variables, the non-significant findings for residential-need variables (poverty and percent minority) contrast with the research of Goetz (1994) and Elkins (1995). Yet the positive effect of regional competition and population size supports the structural perspective, and the positive impact of unionization and labor organization shows that agency affects Type II policy adoption.

Type II ED policies involve requirements such as job creation or targeted benefits. Given such requirements, several researchers theorized that the adoption of Type II policies would be affected by citizen input and progressive local politics. Overall, the empirical findings supported the idea that citizen participation increases the adoption of Type II policies (Elkins, 1995; Goetz, 1990, 1994; Martin, 2001).

### Anti-growth policies

Other researchers have examined progressive ED policies without referring to the Type II categorization, and some Type II policies have also been identified as “anti-growth” policies. For example, Elkins (1995) characterized the requirement that developers pay for public infrastructure as a Type II policy while Logan and Zou (1990) and Donovan and Neiman (1992) called the requirement an anti-growth policy. Whereas Type II policies require developers to provide benefits to residents, anti-growth policies limit development (usually land development). Anti-growth and Type II policies are not synonymous, but the policies overlap and so may their predictors. This section reviews two studies of anti-growth policy adoption.

Logan and Zou (1990) used data from a 1973 survey of suburban cities to study the adoption of seven anti-growth policies: imposing growth moratoriums and limitations, requiring environmental impact statements, using zoning for open space and protecting the environment, and requiring developers to dedicate land or provide public facilities (i.e. roads, sewers, school buildings, etc.). Logistic regression tested the probability of cities adopting these policies as a function of several community characteristics: education level, residence (home-ownership, residential stability), population (size, growth, density, and age of city), and local government activity (city per capita expenditures, number of municipal functions).

Across the seven models, several community characteristics influenced anti-growth policy adoption (Logan & Zhou, 1990). Population size had positive effects in three of the models, but population growth was non-significant and population density had negative effects in three of the seven models. Residential instability or movement positively influenced three of the seven policies. The number of municipal activities positively influenced two of the policies. Overall, the seven models tested structural variables and provided mixed findings.

Logan and Zhou's (1990) models emphasized structural explanations to the exclusion of agency variables such as local government structure, organizational culture, and community and business activism. The models also ignored structural measures such as residential need and regional and inter-city competitive factors. Although Logan and Zhou's (1990) models omitted theoretically important predictors, the study added a rarely considered variable – residential movement – and showed that it had a positive impact. In addition, the positive effects of population size and municipal activities suggest that the administrative capacity of local government facilitates anti-growth policy adoption.

Another anti-growth study also focused on residential or land development, rather than economic development. Donovan and Neiman (1992) examined whether or not Southern California communities made requirements of developers. Examples of the requirements include school fees, dedication of capital improvements, and moratoriums on sewer permits. Donovan and Neiman (1992) combined nineteen residential requirements and regressed the scale on demographic, socio-economic, and partisanship variables. Results of these structural predictors showed that the adoption of residential restrictions was positively influenced by population growth and the percent of residents in professional occupations. Non-significant control variables included poverty, income, housing construction, home-ownership, partisanship (% democrat), and percent of residents in manufacturing occupations (Donovan & Neiman, 1992).

Because the data was limited to Southern California (an area high in anti-growth policies), the sample had a restricted range that may have masked effects that exist on the national level. In addition, the model omitted population size as well as agency factors such as community activism and mayoral power. Donovan and Neiman's (1992) findings do show that two structural variables, community growth and residents' occupational status, affected the adoption of anti-growth policies.

The anti-growth studies of Logan and Zhou (1990) and Donovan and Neiman (1992) both emphasized structural explanations. Positive effects were found for population size (Logan & Zhou, 1990) and population growth (Donovan & Neiman, 1992). The models used a comprehensive set of structural predictors, but the omission of agency variables is a major weakness. Anti-growth policies in particular are likely to be positively influenced by community activism.

#### Summary of progressive Type II and anti-growth policy adoption

Empirical studies of progressive Type II and anti-growth ED policy adoption by local governments included some agency variables but tended toward explanations based on structure. Findings of the structural variables showed that population size had positive effects in three studies (Goetz, 1990; Logan & Zhou, 1990; Martin, 2001) but was not significant in two others (Elkins, 1995; Goetz, 1994). Growth of the population (Donovan & Neiman, 1992; Logan & Zhou, 1990) and minority political representation (Elkins, 1995; Reese, 1997b) also had mixed effects. Socioeconomic patterns indicated that residential need (poverty, unemployment) was positively associated with progressive policy adoption in the studies of Goetz (1990), Elkins (1995), and Reese (1998), while Logan and Zou (1990) found little impact for home-ownership and education. Finally, regional competition had a positive impact on progressive policies in two studies (Elkins, 1995; Martin, 2001).

Agency explanations include organizational and political institutional variables, but only Reese (1998) considered these perspectives. Reese found that organizational variables such as staff size, resources, and planning-and-evaluation techniques had positive effects on policy adoption. None of the studies considered attitudinal indicators such as staff support and organizational climate. Instead, agency explanations came from forces outside the local government, and community activism had an impact across most of the progressive policies.

Several researchers expected that business activism and a pro-business climate would negatively affect progressive policy adoption, but this relationship was not supported and in one case reversed (Goetz, 1994). Community activism was neglected by both anti-growth studies (Donovan & Neiman, 1992; Logan & Zhou, 1990).

Overall, findings from studies of progressive policy adoption carry implications for both structure and agency perspectives. Structural explanations underscored the role of residential need (poverty and unemployment), but more work is needed on Goetz's (1994) finding that inequality – a combination of wealth and poverty – predicted Type II policies. Additional research is also needed to confirm the positive impact of regional competition, minority political representation, and population size. In terms of agency variables, the studies emphasized local forces external to government and showed that community activism predicted progressive policy adoption. More research is needed to explore internal processes – that is, how the organizational characteristics of local government affect policy adoption. In particular, attention should be directed toward the impact of organizational resources and decision-making, as well as the local form-of-government.

#### Performance measurement in local economic development

To date, no publications have used multivariate hypothesis-testing research to examine the focus of this study: performance measurement in the context of local economic development. However, articles by Sullivan and Green (1999) and Reese (1997a; 1997b) come close to the topic. Sullivan and Green (1999) examined whether or not cities offering incentives to businesses used cost-benefit analysis, written criteria, or performance agreements when assessing firm eligibility for incentives. These three items were combined to form a fourth measure: whether or not cities used any of the three items. These items represented planning and forecasting

techniques because they were concerned with future potential benefits of incentives. In contrast, performance measures assess outcomes that have already occurred.

Sullivan and Green's study (1999) regressed the forecasting techniques on structure and agency predictors identified from the ED literature. For the structural factors, population size (+) was a significant predictor across all four models, while fiscal stress produced mixed effects across models (pressure to raise taxes, -; unemployment, +). In terms of the agency perspective, staff size had a positive impact in two models, and in three models cities were more likely to adopt forecasting techniques when local government (rather than businesses or citizens) was the top participant in ED.

Sullivan and Green's (1999) article provides a rare predictive study of planning within local economic development. The study's major shortcoming is the neglect of crucial organizational variables such as the ED agencies' financial resources, technical capacity, and organizational structure and culture. Still, Sullivan and Green's findings indicate that both structure (population size, fiscal conditions) and agency (ED staff size, government as the top participant in ED) affect the use of forecasting techniques in local ED.

Another researcher analyzed ED planning and evaluation with a more comprehensive set of predictor variables. Reese (1997a; 1997b) conceptualized ED strategic planning and policy evaluation as attempts to introduce rational decision-making into local ED efforts. Data for Reese's first study (1997a) came from a 1990 survey of economic development officials from cities in Michigan and Ontario. Reese (1997a) created a rational decision-making scale from four items: existence of an ED plan, the ED plan guides decision-making, the use of systematic analysis for decision-making, and post-hoc evaluation. Items in the rational decision-making scale were similar though not identical to performance measures. Descriptive results indicated that only 35% of cities assessed ED efforts.

In a multivariate path analysis, the rational decision-making scale was directly affected by two agency variables: resources (+) and goal displacement (-). Resources consisted of the number of ED staff and the time spent by the ED director. The goal displacement index consisted of five items that asked about the degree to which ED efforts involved busywork, short-term rather than long-term projects, and high-profile projects that distracted from more fundamental ED problems (Reese, 1997a).

Reese's (1997a) path analysis also modeled indirect effects. Fiscal health (population size, growth, employment, and income) and reformed government (at-large & non-partisan elections) positively affected rational decision-making through resources. The negative impact of goal displacement was also mediated by several variables. Resources, regional competition, and turbulence (i.e., feeling out-of-control of local ED) positively affected goal displacement while professionalism had a negative impact.

Reese's (1997a) study included most theoretically important variables and modeled indirect as well as direct effects. Although the survey did not ask about specific types of performance measures (e.g. outcomes, efficiency, etc.), the dependent variables captured the evaluative nature of performance measurement. The findings support the role of agency factors and show that resources (+) and goal displacement (-) affect assessment activities.

In a second study, Reese (1997b) used a 1994 survey of cities near the U.S./Canadian border. Bivariate and regression analysis tested the relation of structure and agency variables to a scale of evaluation items (e.g. cost-benefit analysis, market analysis, post-hoc evaluation, etc.). Bivariate results indicated that that the evaluation scale was *not* significantly correlated with income, poverty, unemployment, racial composition, economic base, and local political structure. However, the evaluation scale was correlated with a few structure (population size, growth, vacant land, intercity competition) and agency variables (staff size, budget, professionalism).

Regression analysis showed that the evaluation factor was predicted by population size, expected population growth, and professionalism.

The evaluation scale used in Reese's study (1997b) included two forecasting and planning items and thus was not a pure measure of performance measurement. The article also failed to describe the wording of survey items or response options. In addition, Reese did not explain how the regression models were trimmed or what variables were entered into the model, and the analysis did not include agency variables such as citizen involvement or staff support for evaluation. Despite these shortcomings, the bivariate analysis tapped a wide array of constructs and the non-significant findings for indicators of fiscal health and local political structure contrast with other research. The positive multivariate effects of population size, expected growth, and professionalism are also noteworthy.

This section revealed that little inferential research exists on *performance measurement within economic development*. Sullivan and Green's (1999) study predicted forecasting techniques within an ED context, and the findings highlighted the role of population size, ED staff size, and government as the lead actor in ED decisions. The two studies by Reese were broadly concerned with planning and evaluation rather than actual performance measurement. Reese's first study (1997a) showed that resources (+) and goal displacement (–) affected assessment activities, while Reese's second study (1997b) underscored the positive impact of population size, expected growth, and professionalism. Across the studies (Reese, 1997a, 1997b; Sullivan & Green, 1999), population size (+) was the only significant predictor of assessment activities. In all three studies the authors neglected the literature on local performance measurement.

### Performance Measurement in Local Government

Although a large number of publications extol the merits of performance measurement (PM) and suggest ways to apply PM in local government, little empirical work exists on factors affecting the adoption and use of performance measures. Within the empirical literature on PM, most studies are descriptive. Few studies consider causal relationships between variables, and only a handful of these studies are multivariate and control for competing effects.

This section reviews empirical studies on the use of performance measurement in U.S. city and county governments. The level of analysis in all of the PM studies is not an agency or department, but rather the central administration of the local government. Whereas studies in the ED literature focused on a single municipal function (economic development), studies in the PM literature examined many municipal functions. In this review of PM studies, the section first provides a descriptive overview of PM use, and then reviews inferential findings on factors affecting the use of PM in local governments.

#### Descriptive findings on performance measurement in local government

In a series of articles spanning 15 years, Poister and colleagues tracked municipalities' use of performance measurement and found that the use of PM increased over the past 25 years (Poister & Streib, 1989, 1994, 1999). Poister and Streib's 1999 article describes the most comprehensive findings. The researchers studied PM in thirteen areas of local government (e.g. police and fire departments, garbage collection, libraries, community planning). For each area, senior government officials were asked if their municipality used five kinds of performance measures: output, efficiency, effectiveness, quality, and client satisfaction.

The findings showed that only 38% of municipalities reported using performance measures (Poister & Streib, 1999). Use was higher in larger cities and in cities with a council-manager rather than mayor-council form-of-government. Use also varied by program area: PM

was used most often in police & fire departments and least often in animal control, housing, and traffic. Across all program areas, measures of output or workload were used most often (62%), followed by outcome or effectiveness (46%), service quality (41%), and client satisfaction (39%). Unit cost or efficiency measures were used least often (35%).

When asked why their jurisdictions used performance measures, 90% of respondents indicated that their use of PM was driven by a desire to improve management and decision-making. Less than half (42%) said that citizen demands for greater accountability motivated their cities to use performance measures. One-fourth (25%) of respondents noted that elected officials pressured them to use performance measures. Rarely cited reasons included pressure from the business community (5%) and mandates from federal (10%) and state (3%) governments. As Poister and Streib noted, these findings indicate that local conditions (rather than state or federal) motivated the use of performance measures.

Poister and Streib also asked about problems encountered while using PM. Measurement challenges were most common, with 80% of respondents saying they sometimes (54%) or usually (26%) have trouble measuring quality. A majority of respondents also had difficulty getting lower-level employees to support the PM system (60%), keeping measures current (59%), and collecting and distributing data in a timely manner (51%). Less common problems included managerial support, the analytic skills of staff, and support from city council.

The research by Poister and colleagues showed that the use of PM increased from 1976 to 1999. The findings also showed that simpler measures such as outputs were used more often than complex measures such as efficiency and outcomes. Yet Poister and Streib presented only descriptive statistics, and their analysis neglected all structural variables except for population size. Their results do suggest that agency variables affect PM. Specifically, organizational context (desire for better decision-making, measurement challenges), institutional form-of-

government (council-manager rather than mayor-council), and external forces (citizen demands for accountability, pressure from elected officials) may affect the use of PM in local governments. Inferential analysis is needed to test the impact of these variables in a multivariate context.

#### Inferential studies on local performance measurement

Whereas Poister and Streib's (1999) study was limited to descriptive statistics, other studies reported both descriptive and inferential findings about PM in local governments. Hall (1978) and Bernstein (2000; 2001) used qualitative methods while de Lancer (1997) and Berman and Wang (2000, 2001) used quantitative regression analysis. Compared to Poister and Streib's (1999) descriptive findings, these inferential studies provide a stronger basis for empirically driven theory because they specify causal relationships about factors that influence the use of PM.

Hall (1978) studied PM in the central administration of eighteen local governments where populations ranged from 100,000 to 1,500,000. Through document reviews and interviews, Hall examined how the local governments used PM for decisions about efficiency and effectiveness. PM was considered in terms of the level-of-use and the adequacy of PM for substantive use. Based on these categories, Hall classified communities into high and low levels of implementation.

Cross-case analyses showed that in terms of demographics, high implementing governments were larger, more populated communities. However, no pattern emerged in terms of form-of-government: neither council-manager nor mayor-council governments resulted in higher PM use.

Hall's analysis of internal factors found that staff size and flexibility positively affected the use of PM. High implementing governments had 6-12 full-time employees working on PM – two to three times larger than the staff sizes of low implementing governments. Use of PM was highest when analysts from central administration established relationships with agency staff and

tried to incorporate agency needs and desires into the measurement system. Neither the advanced degrees of staff nor previous experience in local government were related to the use of PM.

Analysis of external factors associated with PM indicated that upper management had an important role. In high implementing governments, the top appointed official initiated PM and managerial support was strong. However, managerial support for PM was also strong in some low implementing governments. Federal funds were often used in high implementing governments but rarely in low implementing governments. Few governments used consultants when developing PM. The role of local government councils was limited (though negative in a few systems where councils objected to the costs of PM).

Hall's (1978) study showed that PM use in the central administration of local governments was positively associated with larger communities, larger staffs, central staff cooperation with municipal departments, and support from top elected officials. Thus the analysis centered on agency explanations and neglected all structural explanations except for population size. Limitations of Hall's study include the selection of only large cities, the lack of detail about the content analysis, and the failure to consider citizen participation as a potential external factor. Finally, changes in PM may have occurred in the 25 years that have elapsed since the study.

In a more detailed qualitative study, Bernstein (2000, 2001) examined five local governments with a history and reputation for performance measurement. Bernstein interviewed agency heads, program managers, and elected and appointed officials, as well as external stakeholders such as citizens and the media. Bernstein also reviewed performance reports and related documents. The exploratory research asked how local governments use PM and what factors affect PM use.

Findings indicated that performance measurement was not a static process but rather one that evolved over years. In all five cases, local government officials supported the PM system,

but turnover in government officials resulted in changes in the focus and use of PM.

Measurement activities were linked together in four of the five jurisdictions, and two jurisdictions had logic models illustrating their PM systems.

An open-ended question asked respondents to name the biggest problem or barrier preventing the use of performance measures. Of 77 interviewees, eighteen (23%) mentioned the time and cost needed to implement a PM system. Fourteen (18%) cited government officials' fear of being held accountable, and ten (13%) noted the difficulties associated with getting management and employees to buy-in to the PM system.

Another open-ended question asked interviewees to identify factors facilitating PM and lessons they had learned. Eighteen respondents (23%) mentioned the importance of involving staff, management, elected officials, and/or citizens as stakeholders. Ten (13%) mentioned creating a supportive PM climate and having a clear conceptual framework for PM. Eight (10%) cited the alignment of PM with the organization's mission and goals, and another eight (10%) noted the importance of leadership to sustaining PM efforts.

Bernstein's study (2000; 2001) provided an in-depth narrative of performance measurement in select local governments. The major limitation of the research lies in the lack of variation of the sample. Because the sample did not include low-implementing jurisdictions for comparison, it is possible that factors thought to affect PM use may also exist in low-implementing jurisdictions. The restricted range of the sample casts doubt on the study's causal inferences as well as the extent to which the findings can be generalized to other jurisdictions. Despite the restricted range, Bernstein's case-study narrative provided valuable detail. The analysis emphasized agency explanations and the findings suggested a critical role for resources such as time, money, and staffing. The study also showed how leadership and stakeholder involvement create an organizational climate conducive to PM.

In contrast to the qualitative studies of Hall and Bernstein, de Lancer (1997; see also de Lancer Julnes, 2001) used path analysis to study PM. Data came from surveys sent to the central administrations of government agencies. Respondents came from municipalities (56%), counties (23%), and state agencies (20%). The goal of the research was to explain the adoption and implementation of PM in public sector organizations.

To measure adoption, respondents were asked, “How extensively have the following performance measures been developed for programs in your organization?” and presented three types of performance measures: efficiency, outcome, and output. Respondents checked one of the following options: “for all programs,” “for many,” “for some,” or “for none.” Descriptive results showed the highest adoption for output measures (44% checking “for many” or “for all”) followed by outcome (29%) and efficiency measures (24%).

The implementation measure asked respondents how frequently the output, efficiency, and outcome measures were used in six areas: strategic planning, resource allocation, program management, reporting to internal management, reporting to elected officials, and reporting to citizens. For all six areas combined, respondents used the measures “frequently” or “always” 38% of the time for output measures, 29% for outcome measures, and 22% for efficiency measures. The adoption and implementation items were combined to form two scales.

The final estimated path model showed that PM adoption was predicted by external requirements (laws and regulations mandating PM), internal requirements (organizational policies for PM), internal interest groups (promotion of PM by management & staff), and rational/technocratic factors (resources & staff, information, and goal orientation). Organizational culture (valuing and rewarding PM efforts) indirectly affected adoption of PM through rational/technocratic factors.

Implementation of PM was predicted by adoption, external interest groups (consultants, elected officials, constituents & citizens) and rational/technocratic factors. Unionization negatively influenced implementation. Internal and external requirements, internal interest groups, and organizational culture did not predict implementation.

Because the adoption and implementation measures were created from several performance measures, the analysis did not examine each performance measure independently. Separate models could have shown whether or not the outcome, output, and efficiency measures were differentially affected by the independent variables. In addition, the analysis consisted of only agency variables. The omission of a structural perspective (demographic, socioeconomic, and regional competition) is a major limitation. Despite weaknesses, the analysis distinguished between adoption and implementation and showed that the same predictors had different effects on the two stages. Across models, de Lancer's (1997) study indicated that resources, elected officials, constituents, and citizens can all affect the use of PM.

In another multivariate analysis, Berman & Wang (2000) and Wang & Berman (2001) examined performance measurement in the local governments of U.S. counties (population > 50,000). Of the 856 chief administrative officers surveyed, only 311 responded (36%). Analyses were limited to the 209 counties that had adopted at least one output, outcome, or quality measure of performance.

The survey asked respondents to indicate if their county government used outcome, output, and quality measures for eighteen local services (e.g. street maintenance, libraries, economic development, etc.). Counties had an average of 12.6 of the 18 services listed on the survey. Berman and Wang constructed dependent variables by averaging PM adoption across the services. For example, a county that provided fourteen of the eighteen services and used output measures in six of those fourteen received an adoption score of .429 (6/14).

In the first article, Berman and Wang (2000) measured both the breadth and depth of PM use. Whereas breadth-of-use measured the adoption of *any* performance measure (i.e. output, outcome, and/or quality), depth-of-use was defined as the percent of services that included effectiveness (outcome) or quality as well as workload (output) measures. Berman and Wang (2000) combined the breadth and depth measures to form one level-of-use scale.

The level-of use scale was regressed on demographics (population, region) and institutional form-of-government, resources, and employee attitudes, as well as the studies' two major constructs: technical capacity and stakeholder capacity. Technical capacity asked about managers' understanding of and ability to use performance measurement. Stakeholder capacity asked about the degree to which respondents requested support for PM from elected officials, advisory boards, supervisors, and lower managers. Findings of regression analysis showed that PM use was predicted by population size, stakeholder capacity, and employee attitudes. Technical capacity, resources, form-of-government, and region were not significant.

In a second and related study, Wang and Berman (2001) used the same database of 209 counties and constructed dependent variables by averaging the adoption of two performance measures, output and outcome, across the services provided by each county. Wang and Berman (2001) posed several agency variables as predictors of output and outcome measures. External support asked how supportive elected officials and citizens were toward PM. Central management involvement considered the role of central agencies in sponsoring and mandating PM. Mission-oriented government had to do with the identification of service needs and goals. A fourth scale, decentralization of decision-making, measured flexibility in budgeting. Entrepreneurship involved privatization and profit-making county services, and professional competency rated the analytical abilities of management and staff. Finally, resources asked about the adequacy of financial support for using performance measures.

The relationship of these seven agency scales to the output and outcome measures was examined in a bivariate and multivariate context. Bivariate correlation analysis revealed a positive association between the dependent variables (output and outcome) and external support, central management involvement, mission-orientation, professionalism, and resources. Decentralization and entrepreneurship were not significant.

Multivariate analysis regressed the output and outcome measures on the seven agency variables. For the *output* model, central management involvement was the only significant predictor. In the *outcome* model, external support and mission-oriented government were significant predictors.

In both studies, Berman and Wang (2000; 2001) limited their analysis to only those counties that had adopted a performance measure in at least one service. This decision reduced the database by one-third, restricted the range of counties to only PM adopters, and prevented the analysis from identifying factors that affect PM adoption vs. non-adoption. Other shortcomings included the neglect of more complicated performance measures (e.g., efficiency) and the failure of the second study to control for demographic and political variables. Both studies also neglected plausible structural explanations such as socioeconomic characteristics.

Despite these weaknesses, Berman and Wang's studies (2000; 2001) provide insight into factors that affect local government use of performance measures. The first study indicated that stakeholder support was critical to the adoption of PM. The second study showed that external support, mission-oriented government, and central management involvement were more important for PM adoption than other factors such as resources, professionalism, and decentralization. Across both studies, the non-significant effect of resources contrasts with findings from other studies (Bernstein, 2000; de Lancer, 1997; Hall, 1978; Reese, 1997a).

Overall, Berman and Wang's two studies (2000; 2001) emphasize agency factors such as the involvement and support of local actors.

### Summary of performance measurement in local government

In terms of structural variables, findings on PM use in local governments indicated that population size was important across all the PM studies and that region of the U.S. had mixed effects. Unfortunately, all of the PM studies neglected a critical part of the structural perspective: socioeconomic variables such as the fiscal conditions, educational level, and occupational status of the community.

The PM literature emphasized agency variables such as organizational characteristics, the local political structure, and external community forces. Several organizational characteristics of local governments affected PM use. Although resources had no significant effect on PM in one database (Berman & Wang, 2000; Wang & Berman, 2001), several other studies showed that staff size and resources positively affected PM (Bernstein, 2000; de Lancer, 1997; Hall, 1978).

Attitudinal support by staff and management was important (Berman & Wang, 2000; Bernstein, 2000; de Lancer, 1997; Hall, 1978; Poister & Streib, 1999; Wang & Berman, 2001), as was linking PM to the organization's mission and goals (Bernstein, 2000; de Lancer, 1997; Poister & Streib, 1999; Wang & Berman, 2001). The impact of these organizational variables varied for different types of performance measures (Berman & Wang, 2000; Wang & Berman, 2001) and for different stages or levels of use (i.e., adoption vs. implementation) (de Lancer, 1997).

Unfortunately, none of the PM studies measured organizational structure such as the centralization of decision-making or formalization of procedures.

In terms of the local political structure, none of the studies tested how mayoral strength and partisan elections affected the use of PM, but several studies considered the local form-of-government. Poister and Streib (1999) noted that cities with a council-manager form-of-

government had slightly higher use of PM, but several multivariate studies showed no differences between the groups (Berman & Wang, 2000; Hall, 1978; Poister & Streib, 1989). Overall, the impact of government form on PM seemed small to negligible.

External forces from the community did influence PM. Findings across the studies indicated that both citizens and elected officials played a role in pushing for accountability and performance measures (Berman & Wang, 2000; Bernstein, 2000; de Lancer, 1997; Poister & Streib, 1999; Wang & Berman, 2001). Other external forces such as local laws and regulations had positive effects in some models (Bernstein, 2000; de Lancer, 1997; Wang & Berman, 2001), but were not a factor in others (Berman & Wang, 2000).

The articles also revealed several shortcomings of the PM literature. The selection of sites was a weakness in the studies of Hall (1978) and Bernstein (2000; 2001). These researchers selected only cream-of-the-crop local governments that had reputations as high-implementing PM systems. The approach restricted the range of cities and did not provide comparison to local governments with low PM use.

Only five studies were inferential in predicting the adoption and use of PM. Of these, only three (Berman & Wang, 2000; de Lancer, 1997; Wang & Berman, 2001) examined PM in a multivariate context that controlled for the impact of competing variables. A related shortcoming is that none of the studies considered interaction effects. For example, it seems plausible that the effect of technical capacity (i.e. the skills and ability to carry-out PM) on PM use may depend on stakeholder capacity (i.e. support from citizens and elected officials). Multivariate PM research should consider such interactions. The PM literature as a whole would benefit from more formal hypothesis-testing research.

The empirical PM literature considered how organizational resources, culture, and external forces affected performance measurement by local governments, but it neglected

measures of organizational structure such as the centralization of decision-making and the formalization of procedures. The PM literature also ignored fundamental structural sources of variation between communities such as socioeconomic status, fiscal health, and tax rates. Overall, the PM literature lacks a guiding and comprehensive theoretical framework for understanding why some local governments use performance measures while others do not.

These shortcomings acknowledged, the empirical literature on PM does indicate that local governments used simpler types of performance measures (e.g. workload or output measures) more often than complex types (e.g. efficiency, effectiveness). The studies also indicate that the use of performance measurement is likely to be affected by the structural variables of city population and U.S. region, and the agency variables of staff size and resources, an organizational climate favorable to PM, and external demands for accountability by citizens and elected officials. The next section suggests how these factors might relate to the local economic development context.

#### Summary of Policy Adoption Across the Empirical Literatures: Economic Development and Performance Measurement in Local Governments

The previous review of empirical studies focused on policy adoption in local governments. Two empirical literatures were examined – economic development (ED) and performance measurement (PM). Both literatures were viewed from the structure and agency perspectives (see page 13).

The ED literature focused on policy adoption by municipalities within a single municipal function: economic development. In contrast, the PM literature studied the central administration of local governments and examined PM adoption across all of the jurisdiction's agencies. The discrepancy in levels of analysis between the ED and PM literatures presents a potential knowledge gap: the aggregated use of PM across all the jurisdiction's agencies may differ from

the use of PM within a particular agency such as economic development. Research shows that PM use is higher in less complex municipal functions (Poister & Streib, 1999), and thus PM within ED may differ from PM in other agencies where the services provided are less ambiguous (e.g. fire departments, library services).

Another difference between the literatures lies in the perspectives examined. The ED research emphasized structural rather than agency explanations. In contrast, PM research emphasized agency rather than structural explanations. Both literatures highlighted one perspective to the neglect of the other, and neither literature examined a complete set of structure and agency explanations.

These caveats acknowledged, the ED and PM literatures do point toward several factors that affected the use of PM within local ED. Table 1 shows those factors that were used as predictors in more than one of the reviewed inferential studies. Table 1 includes only those studies that specified causal relations between variables. Factors shown were considered as predictors in at least two of the studies.

From the ED literature, population size and residential need (poverty, unemployment) were the structural factors having a consistent, positive impact. The effects of another fiscal measure (income) were mixed: income had positive effects for the adoption of Type I policies and negative effects for Type II. In terms of the agency perspective, important variables from the ED literature included the local government's organizational structure (centralization), decision-making (government as the most active proponent of ED, presence of an ED plan), and resources or technical capacity. External forces had mixed effects: community activism positively influenced the adoption of progressive Type II policies but was generally not significant for Type I policies.

Findings from the PM literature showed that population size was a consistent structural predictor of PM techniques. In terms of agency variables, the PM literature showed effects for the organizational characteristics of local government as well as the external forces of the community. Important organizational factors included staff size and resources, attitudinal support for PM, and linking PM to organizational goals. External factors highlighted the role of citizens and elected officials in pushing for accountability.

By combining the summarized findings from the ED and PM literatures, several variables emerge as likely predictors of PM within ED. Population size was the most consistent structural predictor across both literatures. More studies should have accounted for the typically skewed nature of population size by transforming the variable (e.g., taking the logarithm) so that the

distribution approached normality. Despite this measurement issue, population size was the strongest structural predictor across both the ED and PM literatures. In terms of agency, organizational resources (staff size, technical capacity) and community activism were consistent predictors across the ED and PM literatures.

Other variables also deserve attention. For some variables, strong effects were found in one literature but not in the other. For example, residential need variables such as poverty and unemployment were critical in the ED literature yet not measured in PM literature. City type (suburban cities adopted less policies) and minority political representation also affected ED policy adoption but were not examined in PM literature. In addition, the impact of the local government organizational structure merits further study. Centralization, formalization, and government as the lead ED actor all predicted the adoption of ED policies, but it is not clear how these variables might affect the more evaluative activities of PM.

Less consistent effects also deserve further empirical study. In the ED literature, mixed effects were found for the structural socioeconomic variables of income, housing value, occupational status, educational level, and homeownership. Other mixed structural effects included population growth and the percent of commuters. From the PM literature, mixed structural effects were found for region of U.S. and for local laws and regulations.

Several agency variables also showed mixed effects. From the ED literature, the impact of business involvement was mixed. Both the ED and PM literatures generally showed non-significant findings for political institutional variables such as mayoral strength, type of elections, and local form of government. But the significant (though mixed) findings of a few studies make political institutional variables worth further study. One study (Feiock & Kim, 2001) suggests that form of government may have an interactive effect.

Finally, the PM and ED literatures showed that adoption levels varied according to characteristics of the policies or measure being adopted. The literature on local economic development showed that less costly and more hidden incentives had higher rates of adoption (Rubin & Rubin, 1987). Similarly, the literature on performance measurement showed that PM adoption varied according to the complexity of the performance measure (de Lancer, 1997; Poister & Streib, 1999)

Empirical traditions exist in both performance measurement and economic development, but this literature review reveals a research gap for performance measurement within local economic development. Only three studies predicted the adoption of forecasting and evaluation techniques within ED (Reese, 1997a, 1997b; Sullivan & Green, 1999), and explanations for these techniques were based on the ED literature. None of the researchers applied the PM literature to the use of PM within ED.

The current study addresses this research gap by combining findings from the PM and ED literatures into a predictive model. The study also considers how the structure and agency perspectives contribute to the adoption of performance measurement within local economic development. The next chapter describes specific research questions and hypotheses.

### III. RESEARCH QUESTIONS AND HYPOTHESES

The purpose of this study is to better understand performance measurement in the context of local economic development. The goal is to identify factors that affect the use of performance measures by local economic development agencies. As a guiding research question, this study asks, “Why do some municipalities use performance measures in economic development while others do not?”

A more fundamental question involves the degree to which local policies are chosen (agency) rather than determined (structure). Local actors influence agency, but they have little influence over structure (see page 13). The economic development (ED) literature has emphasized structural explanations while the performance measurement (PM) literature has concentrated on agency explanations. This study combines the two perspectives and asks, “To what extent do municipal accountability policies reflect local agency choices rather than existing structural conditions?”

Figure 1 provides a conceptual overview of the proposed model. A more detailed model is shown in Figure 2. The next chapter, methods, describes data sources, question wording, and response options. Before turning to the methods, this chapter identifies variables for the study and poses hypotheses.

#### Structure

The empirical literature review showed that researchers concentrated on three major structural components: demographics of the community, socioeconomic conditions, and regional competition. In this section I propose how variables for these three constructs relate to the adoption of performance measures.

### Demographics of the community

Across all of the studies, population size was the most consistent predictor of policy adoption. Wolman and Spitzley (1996) argued that population size is actually a proxy measure for administrative capacity – as the size of a city increases, so do the available human and technical resources. Mixed findings also pointed toward the growth of a city’s population as a predictor of ED policy adoption.

The composition of citizenry may also affect the use of PM in ED. In terms of racial composition, there was weak empirical support for the idea that as the minority population and political representation increased, ED policies would receive greater scrutiny and policy adoption would increase.

Several studies suggested that metropolitan status should affect policy adoption. Suburban cities are often “bedroom” communities where people live and then commute to central cities (Green & Fleischmann, 1991). In contrast, central and independent cities depend more heavily on their own industrial economic base. Given that suburban cities have more commuters and less industry, suburban cities should be less interested in industrial economic development and adopt fewer ED policies.

H1: Community demographics will affect the adoption of PM in ED:

H1a: Population (size and growth) will positively influence PM in ED.

H1b: Higher minority populations (percent of minorities) will positively influence PM in ED.

H1c: Metropolitan status will influence PM in ED such that use of PM will be higher in central and independent cities and lower in suburban cities.

### Socioeconomic conditions

Closely related to demographics are the socioeconomic conditions of the community. Theorists such as Molotch (1976) and Peterson (1981) argued that a need for tax revenue encourages cities to pursue ED policies (see page 4). Empirical studies also showed that the fiscal conditions of a city and its citizens affect the adoption of local government policies. Wealthier cities have more resources to adopt ED policies such as incentives and performance measures. As wealth increases, so does the likelihood of municipalities adopting ED and PM policies. A city's wealth depends largely on the local economic base. Cities whose economies are based in technology and manufacturing should be wealthier than those based in agriculture, warehousing/distribution, and service/retail. Transportation infrastructure (airports, highways, railroads, etc.) should also contribute to the local economic base.

In addition to the local economic base, the fiscal conditions of the municipal government and its citizenry affect the likelihood that cities will pursue ED policies. Municipal fiscal conditions consist of two local government indicators: city revenues and expenditures. Citizen fiscal conditions consist of income and unemployment. As the wealth of a municipality and its citizens increases, so does the likelihood that cities will adopt performance measures.

Education may also have an impact. Although previous research showed mixed results for the impact of education on ED policy adoption, conceptual reasons suggest that educational opportunities will increase the adoption of performance measures. In areas with greater educational opportunities, the local government can draw from a more

educated workforce and also train workers in the skills needed to use performance measures. Local colleges and universities represent educational opportunities.

Finally, barriers to economic development may affect the adoption of performance measures. ED barriers include a lack of skilled labor, few major employers, and a lack of available land for development. While barriers do increase the challenges of ED, such barriers may also lead officials to more carefully monitor the effects of their incentive packages. Cities with labor, employer, and land shortages have a greater need to oversee ED activities and use PM in ED.

H2: Socioeconomic conditions will affect the adoption of PM in ED:

- H2a: Wealthier local economies (city expenditures, housing values, technology/manufacturing industry base, and greater transportation infrastructure) will positively influence PM in ED.
- H2b: Municipal fiscal health (city revenues/expenditures) will positively influence PM in ED.
- H2c: Citizen fiscal health (personal income, employment) will positively influence PM in ED.
- H2d: Educational opportunities (presence of college or university) will positively influence PM in ED.
- H2e: Barriers to ED (lack of skilled labor, major employers, and available land) will positively influence PM in ED.

### Competition for economic development

A city's demographic and socioeconomic conditions relate to the third structural component: competition for economic development. According to Peterson's (1981) *City Limits*, cities' need for tax revenue unites local leaders toward promoting their city and competing against other cities. Given this inter-city competition, cities should remain competitive with one another by adopting the policies used by similar cities. US

cities also compete with foreign cities and countries. Globalization and the impacts of the North American Free-Trade Agreement (NAFTA) reflect the increasing degree of competition for economic development.

If policies disseminate within state and regional boundaries, then some US states and regions should have higher adoption rates than others. Regions enact development policies, and descriptive and inferential studies showed that the South is more likely to adopt costly incentives and less likely to adopt progressive municipal policies. Compared to regional policies, state-level development issues pose an even greater impact on local governments. I consider the impact of three state-level development indexes: performance (employment, income, and quality of life), business vitality (competitiveness, economic diversity, entrepreneurial energy), and development capacity (resources, assets).

H3: Competition for economic development will affect the adoption of PM in ED:

- H3a: Competition (from other governments) in attracting investment will positively influence PM in ED.
- H3b: Region of the U.S. will influence PM in ED such that use of PM will be higher in the West and Northeast and lower in the South.
- H3c: State-level indicators of economic development vitality will positively influence PM in ED.

### Agency

The agency perspective consists of several components: the organizational characteristics of economic development activities, the local political institutional

structure, and external support from citizens, businesses, and politicians. This section poses research questions about the effect of these agency components on PM in ED.

### Organizational characteristics

Municipal policymaking involves many people working in an organizational context. The empirical literatures on ED and PM explored several organizational explanations, including resources and technical capacity, structure (centralized decision-making, formalization and planning), and attitudes and culture.

#### Resources and technical capacity

A few ED studies considered organizational resources and showed positive effects for ED staff size and budget. Overall, however, the ED literature largely ignored organizational resources. In contrast, most studies from the PM literature measured resources and showed a strong link between staff size and budget and the adoption of performance measures. Staff size and budgets are organizational resources that should impact PM in ED. The salary of the local ED director provides another resource measure that should positively affect PM in ED.

Related to resources is the technical capacity of the ED staff and organization. Technical capacity denotes the ability to perform a desired activity. In the ED literature, technical capacity positively affected the adoption of traditional ED policies. Studies from the PM literature showed that technical capacity had mixed effects on PM adoption. For this study, a direct measure of technical capacity is not available from the dataset, and four proxies will be used: incentives supported by the local government, technology applications, community-based ED, and the overall amount of ED activity.

H4a: Resources and technical capacity will influence the adoption of PM in ED:

H4a\_1: Greater resources (staff size, budget, and salary) will positively influence PM in ED.

H4a\_2: Funding barriers will negatively influence PM in ED.

H4a\_3: Greater technical capacity (incentives, technology applications, community-based programs, and ED activity) will positively influence PM in ED.

### Organizational structure

Studies of organizational structure in local economic development have examined how centralization and formalization influence policy adoption. Centralization refers to the distribution of power in an organization (Hall, 1996). Typically, centralization indicates the degree to which strategic organizational decisions rest with higher or lower level employees. In the ED literature, researchers have tested the effect of centralization with a useful but imperfect measure: whether or not cities have a separate department for economic development. I use a similar proxy of centralization in this study, and I expect my findings to corroborate previous research that showed that ED policy adoption was more likely in cities having a separate ED department.

Formalization is another aspect of organizational structure. Formalization indicates the degree to which roles, relationships, and activities are specified independently of the personal characteristics of the people occupying the positions (Scott, 1987). Formalization is often operationalized through job definitions and procedural specifications. While not an ideal measure, the dataset provides a useful indicator of formalization: having written plans for economic development. When cities document their plans, they exhibit planning as well as formalization. Such formalized planning

should increase the likelihood of adopting performance measures. Formalized planning should also help maximize the use of organizational resources.

H4b: Organizational structure will influence the adoption of PM in ED:

H4b\_1: Centralization (cities having a separate ED department) will positively influence PM in ED

H4b\_2: Formalized planning will positively influence PM in ED.

H4b\_3: The effect of ED resources on PM in ED will increase with formalized planning.

#### Organizational focus

The amount of staff time directed toward particular types of ED activities provides an indicator of staff priorities and organizational focus. When staff time is concentrated on retention and attraction activities, ED efforts are more likely to target the businesses community. In contrast, when staff time is devoted toward development activities, ED efforts should concentrate on human capital and workforce issues such as the education and training of citizens and the improvement of public service infrastructure.

Whereas *retention* and *attraction* activities often focus on particular businesses, *development* activities are directed toward the broader community. This broader community concern reflects an organizational focus more in tune with public needs. As organizations move toward serving the broader community (rather than particular business interests), accountability efforts such as performance measurement should increase. Thus, ED organizations that spend more time on development activities (and less time on retention and attraction activities) are more likely to adopt performance

measures. In addition, the effect of development activities on PM should be greater when cities have more organizational resources.

H4c: Organizational focus will influence the adoption of PM in ED:

H4c\_1: The percent of ED staff time spent on development activities (rather than retention and attraction activities) will positively influence PM in ED.

H4c\_2: The effect of staff time spent on development activities (rather than retention and attraction activities) on PM should be greater when cities have more organizational resources.

#### Organizational climate

The last organizational characteristic consists of organizational climate. The attitudes of staff and administration represent a crucial agency factor. The degree to which members are receptive to change in general and performance measures in particular should affect policy use. Such organizational attitudes affected policy adoption in the PM literature, but were largely unexplored in the ED literature. Unfortunately, limitations in the data also prevent this study from exploring the effect of organizational attitudes and culture.

#### Political institutional structure

In addition to organizational characteristics, local politics – the second agency component – can also affect municipal policy adoption. The political structure of most US local governments consists of a mayor-council or council-manager form of government (Boynton & DeSantis, 1999). Either a strong or weak mayor characterizes the mayor-council form of government. Mayors are considered strong or weak based on municipal laws governing their election methods, length of terms, and voting privileges. Strong mayors are elected independently from the council and carry special privileges

such as veto power over council-members. Weak mayors are also council-members who rotate into the position or are selected by the council. In both strong and weak mayor-council systems, the mayor is the formal head of city government.

In the council-manager form of government, decision-making authority rests with an elected council. The council is responsible for policymaking and appoints a city manager. The city manager directs and performs administrative duties. The mayor acts as a political leader, but has no special administrative power over council members.

Although most empirical studies found no relationship between local political structure and policy adoption, a few studies showed that full-time mayors, ward representation, and the power of executive veto positively influenced ED policy adoption. Wolman and Spitzley (1996) reviewed these findings and suggested that the greater the centralization of mayoral or executive power in local politics, the more likely it was that economic development policies would be adopted. Thus, strong mayor systems should be more likely to adopt policies such as performance measures. Unfortunately, the dataset does not include measures of mayoral strength. The dataset does have measures of form-of-government (mayor-council vs. council-manager), but most empirical findings showed that form-of-government rarely affected policy adoption. The potential impact of form-of-government should be examined, but there is little reason to believe that local form-of-government will affect the adoption of performance measurement.

H5: Political institutional structure will affect PM in ED:

H5a: Form of government (mayor-council vs. council-manager) will *not* influence PM in ED.

### External forces

The final agency component consists of external forces. External forces consist of constituents outside the department responsible for economic development decisions. Local governments represent a variety of constituents that try to influence the adoption and use of local policies. Regime theory identifies these constituents as citizen, business, and government interest groups. Consistent with regime theory, the ED and PM literatures showed that citizen activism strongly encouraged the adoption of performance measures and progressive ED policies.

In contrast, business activism was not always the negative force predicted by regime theorists. The effect of business activism was typically not significant although it had weak and mixed impacts on the adoption of some traditional ED policies. Sullivan and Green (1999) predicted that businesses would oppose eligibility criteria and performance agreements since they impose greater scrutiny on business incentives. However, the empirical findings did not support their view.

Some individual businesses will surely oppose greater accountability, yet it is plausible that the business community as a whole will push for performance measures. Business leaders understand and respect performance measures such as cost/benefit analysis, and they may welcome the quantification of public dollars. Performance measurement may also lead to a more equitable allocation of incentives across the businesses community. Together, these factors suggest that the impact of business activism will *not* have a negative impact on the adoption of PM.

Political forces may also affect ED policies. The political institutional perspective accounted for local political structure, but it did not consider the support of local

politicians. Economic development unfolds within a political context, and the degree to which local politicians support ED policies can affect their adoption and use.

Finally, external forces include other government bodies involved in ED decision-making. Several studies showed that when the local government was the most active participant in developing local government's ED strategies, policy adoption was more likely. This finding was not corroborated in other ED studies, but the potential impact of government activism is worth testing. Local government activism should positively influence the use of performance measures.

Government bodies outside the local jurisdiction may also influence decisions. State and federal governments can provide grants and revenue for local economic development. Other local governments can also have an impact through networking and partnering. Grant seeking, networking, and partnering involve the local ED agency working with distant organizations in order to influence local economic development. Such extra-local organizational boundary spanning has been neglected by both the ED and PM literatures.

H6: External forces will affect the adoption of PM in ED:

- H6a: Citizen activism will positively influence PM in ED.
- H6b: Business activism will *not* influence PM in ED.
- H6c: Lack of political support for ED will negatively influence PM in ED.
- H6d: Local government participation in developing ED strategies will positively influence PM in ED.
- H6e: Extra-local (state and federal) government participation in developing ED strategies and funding grants will positively influence PM in ED.
- H6f: Partnering with other local governments will positively influence PM in ED.

### Structure versus Agency

A central issue for this study involves the degree to which local economic development policies are chosen by local actors rather than determined by existing structural conditions. The extent to which performance measurement in local economic development is chosen (agency) rather than determined (structure) should be reflected by the relative contribution of the structure and agency perspectives.

Following the method used by Hammer and Green (1996), I compare the impact of sets of variables in the structure and agency perspectives. The findings of Hammer and Green (1996) showed that the agency variables explained nearly twice as much variation in ED policy adoption as the structure variables. However, the researchers neglected many important structure and agency variables. Hammer and Green (1996) also examined Type I pro-growth ED policies, whereas this study considers performance measurement, an accountability effort more closely aligned with Type II policies.

Although the dependent variables of this study differ somewhat from that of Hammer and Green (1996), the findings should be similar. The impact of local community choices (agency) on performance measurement should be greater than the impact of existing city characteristics (structure).

H7: Compared to the set of structural variables, the set of agency variables will have more impact on PM in ED.

As a second approach to the structure vs. agency question, I consider the impact of the agency variables after controlling for the structural variables. I expect variables from the agency perspective to contribute to PM in ED over and above the impact of the structural perspective.

H8: The set of agency variables will explain PM in ED over and above the impact of structural variables.

Combining the structure and agency perspectives suggests many factors that may affect PM in ED. While a trimming approach will be used to exclude some variables, the following hypothesis identifies the relevant components from each literature:

H9: PM in ED will be explained by structure (i.e., demographics, socioeconomic conditions, & competition for ED) and agency (organizational characteristics, political institutional structure, & external forces).

### Summary of Research Questions

The empirical literature review showed that performance measurement studies neglected structural factors while economic development studies neglected agency factors. This study addresses the weaknesses of both literatures by combining the structure and agency factors and examining the relative contribution of each perspective. This study also fills a research gap by focusing on a specific policy (performance measurement) within a particular context of local government (economic development). The next chapter identifies the data sources and methods.

#### IV. METHODS

In this chapter I identify my data sources, sample, and measures. I describe variable construction as well as descriptive univariate statistics.

##### Data Sources

Data came from six surveys collected by three organizations. This section describes the organizations and their surveys.

##### The International City Managers Association

The International City Managers Association (ICMA) was founded in 1914 and currently has over 8,000 members. ICMA serves as an information clearinghouse for local governments and also provides administrators and professionals with technical assistance, training, publications, and datasets (see <http://www.icma.org> for more information). ICMA data used in this study came from two surveys: the economic development survey and the salary survey.

##### Economic development survey

ICMA has surveyed communities about their economic development efforts every five years since 1984. With each administration, the survey has undergone expansion and revision. The 1999 economic development (ED) survey used in this study was a six-page questionnaire designed to assess the ED activities and policies of cities. The survey asked about the economic base and growth of each city, the local budget and staffing for ED, and officials' priorities and plans for ED. The survey also asked about efforts to market the city through business attraction and retention efforts, including the use of business incentives. Finally, the survey asked about the participants in local ED policymaking and the use of accountability efforts such as performance measures.

The 1999 ED survey was sent to US municipalities with populations exceeding 10,000 people. Of 3,308 communities surveyed, 1,042 responded, a 32% response rate. The appendix contains a copy of the survey.

#### Salaries of municipal directors survey

The ICMA salary survey is a one-page questionnaire administered annually to local governments nationwide. The 1999 version asked respondents to list the name, sex, race, and annual salary of 23 local officials. Listed officials included the chief administrative officer, the treasurer, the director of public works, the fire chief, the superintendent of parks, the chief librarian, and the director of economic development.

The 1999 salary survey was sent to all US cities and counties with populations exceeding 2,500 people. Of the 7,683 cities surveyed, 4,544 responded, a 59.1% response rate. The appendix contains a copy of the survey.

#### Development Report Card for the States

The Corporation for Enterprise Development, a non-profit organization that disseminates information on economic development policies (see <http://www.cfed.org>), compiled the Development Report Card for the States used in this study. The report card is a benchmarking tool that ranks states on their economic development policies. The report card provides an annual assessment of each state's economy and potential for future growth. The 2000 Development Report Card for the States used more than seventy measures to compile rankings for each state on three indexes of economic development policy: performance, business vitality, and development capacity. Additional information about the 2000 Development Report Card for the States can be found at <http://drc.cfed.org>.

### The US Bureau of Census

US Census Bureau data used in this study came from three surveys: the 1997 census of governments and the 1990 and 2000 census of population and housing. Data from the 1997 census of governments consisted of financial information on city revenues and expenditures. Demographic data came from the 1990 and 2000 population and housing surveys. More information about census data can be found at [www.census.gov](http://www.census.gov).

### Sample

Preparing data for analysis required merging data, deleting cases with missing data, constructing variables, and dealing with outliers. These data preparation steps removed more than half of the cases from the original database. Figure 3 displays the data sources, data deletion steps, and rationale for removing cases.

As a first step, I deleted cases due to inappropriate levels of analysis and unusual or missing data. Of the 1,042 respondents to the ED survey, 129 represented counties, not cities. The structure and characteristics of county governments differs from that of cities, and in many cases the counties in the database overlapped geographically with cities in the database. Consequently, I deleted the 129 county governments, leaving 913 respondents.

Merging across databases prompted me to delete several cities from my analysis. Six cities in the economic development database failed to merge successfully with census data. I deleted the six cities (i.e., Lake Forest, CA; Port St. Lucie, FL; West St. Paul, MN; Fayette, OH; Green, OH, and Tualatin, OR), leaving 907 cities in my database. Third, I deleted cities with missing data on variables in the analysis. The following list shows variables with the most missing data and, in parentheses, the amount of missing

data: personal income (234), staff priorities (198), unemployment rate (146), housing costs (132), and budget for economic development (100). I deleted the 460 cities with missing data across these and other variables. Deleting cases with missing data on one or more independent variables reduced the database by more than half, from 907 respondents to 447.

Finally, I deleted six cities that had unusual data. I deleted five cities that provided absurd values for personal income (<100 dollars per year). I also removed one city that reported a staff size value of 100, an outlier that was more than twice as large as the next closest city. My final sample consisted of 442 respondents.

### Sample Representativeness

I considered the generalizability of my sample in two ways. First, I considered how respondents to the ED survey related to the population of all cities surveyed. Milligan (2001) described the sample statistics of ICMA's 1999 ED survey and compared the 1,042 respondents to the survey population of 3,308 US cities with populations of 10,000 and higher. Milligan reported that the survey sample was well balanced in terms of metropolitan status, but slightly biased for population size and geographic distribution. Cities with mid-sized populations ranging from 50,000-240,000 residents had higher response rates than larger and smaller cities. Response rates were also higher for the western part of the US and lower for the East.

I also compared my final sample to the database of ED survey respondents. Of the 1,042 survey respondents to the ICMA ED survey, I removed 129 counties, leaving 913 cities. Of these 913 cities, 442 were in my final sample of cities. I used t-tests to

compare mean differences between my final sample of 442 respondents and the other 471 respondents to the survey.

I examined several community demographic variables: population size, income, housing costs, and unemployment. My final sample of cities averaged 15,000 more people than other cities responding to the ICMA ED survey. Other demographic differences indicated that my sample of cities had a slightly lower personal income (\$913), housing cost (\$22,000), and unemployment rate (.02).

All four of these variables were skewed, and I performed the t-tests on their logarithmic transformations. T-test comparisons revealed significant differences for the log of population size, but not for the logs of income, housing costs, and unemployment. Thus, cities in my final sample were significantly larger but otherwise similar to other cities responding to the ICMA ED survey.

### Measures

In this section I describe variable construction as well as descriptive univariate statistics. Table 2 shows frequencies and percentages for all categorical variables. Descriptive statistics for all numeric variables are shown in Table 3.

#### Dependent variable

Initially, I coded cities according to the types of performance measures that respondents reported using – input, output, effectiveness, efficiency, and/or explanatory information. I then combined these categories and focused my analysis on the two most useful types of performance measurement: effectiveness and efficiency.

My dependent variable came from two questions on the economic development survey (items 36 and 37) that asked about cities' assessment of business incentives and

overall economic development. The question on business incentives asked, “Please indicate how your local government measures the effectiveness of business incentives. (*Check all applicable*),” and presented seven response options: a) Amount of jobs created by the new business, b) Amount of money invested in construction materials and labor, c) New dollars invested in land, d) Number of new businesses relocating or expanding in jurisdiction, e) Company revenue/sales, f) Cost/Benefit Analysis, and g) Other (please specify) \_\_\_\_\_. Because items a) through e) showed how well the incentives achieved their objectives, I coded these five items as *effectiveness* indicators. Item f), Cost/Benefit analysis, indicated how the expenses of incentives related to their benefits, and thus I coded item f) as an *efficiency* measure. I also examined the open-ended responses to g), and I categorized the 56 write-in responses in the following ways: both efficiency and effectiveness (n=1), efficiency only (n=2), effectiveness only (n=51), and output only (n=2). The large majority (91%) of write-in responses were effectiveness indicators, and of these, most (60%) assessed incentives through tax revenue.

A second question was more broadly concerned with overall economic development efforts. The question asked, “Does your local government use performance measures to assess the effectiveness of its economic development efforts?” and presented respondents with a yes/no option. A follow-up question asked, “If ‘yes,’ which of the following performance measures are used? (*Check all applicable*),” and presented the following four items: “1) Input measures (e.g. number of staff hours expended by program),” “2) Output measures (e.g. # of organizations that receive assistance by program),” “3) Efficiency measures (e.g. program expenditures per estimated tax \$ generated),” and “4) Other (please specify) \_\_\_\_\_.” Response option 4) had 30 write-in

responses, and respondents mentioned job creation (n=10) and pre-established goals (n=6) most often. I coded these and 9 other write-in responses as effectiveness indicators (n=25). I coded the remaining 5 write-in responses as output (n=4) and efficiency (n=1) indicators. The high percentage of effectiveness indicators (83%) on the write-in responses partly reflects the survey's omission of effectiveness as an option on the forced-choice responses to this question.

Next I examined effectiveness and efficiency indicators across the two questions. I classified respondents according to the following three categories of use: 1) *both* effectiveness *and* efficiency, 2) *either* effectiveness *or* efficiency, and 3) *neither* effectiveness *nor* efficiency. For the last category, *neither* effectiveness *nor* efficiency, I combined those respondents who used no performance measures whatsoever with those who used the two simplest types of performance measures, input and output. Although measuring inputs and outputs is better than measuring nothing at all, experts have criticized that inputs and outputs provide little value as measures of performance (Ammons, 2001). This criticism, combined with the small number of respondents in the input (n=1) and output (n=11) categories, led me to combine the input, output, and none respondents into the category of *neither* effectiveness *nor* efficiency.

My final dependent variable was a three-category measure indicating cities' use of effectiveness and efficiency. Descriptive statistics for my dependent variable follow: 1) *both* effectiveness *and* efficiency (n=134, 31%), 2) *either* effectiveness *or* efficiency (n=197, 44%), and 3) *neither* effectiveness *nor* efficiency (n=111, 25%).

### Independent variables

I examined the univariate properties of all independent variables. I double-checked demographic and socioeconomic outliers using the city/county data book published by the US Census Bureau. Where extreme values led me to recode data, I report both the original and recoded values.

All numeric variables approximated a normal distribution except where noted. I discuss the distributional characteristics (skewness, kurtosis, histogram) of numeric variables only when the distribution failed to approximate a normal distribution. Where transformations were required to reduce the influence of outliers, I report the original variable as well as results from the transformation.

### Structural measures

The structural variables came from several sources. Demographic and socioeconomic variables came from the US Census Bureau's 1990 and 2000 surveys of population and housing, as well as ICMA data. City financial characteristics came from the 1997 census of governments. State level policies were examined with the 2000 Development Report Card for the States.

Structural variables consisted of three components: demographics, socioeconomic conditions, and competition for economic development. The first component, demographics, included population size and growth, minority population size, and metropolitan status. Population size came from the 1990 census and was included in the ICMA dataset. Population sizes ranged from just under 10,000 people to over 1 million. Cities averaged 56 thousand people with a median of 28 thousand and

standard deviation of 112 thousand. The original population variable had a skew over 7, but a logarithmic transformation produced a skew and kurtosis just over 1.

Population growth ranged from a loss of -14,533 people to a gain of 162,031. To derive a relative measure of population growth, I divided each city's 1990 population by its 2000 population. Relative population growth had a mean of 1.17, but the skew exceeded 3 and thus I transformed the variable logarithmically. The transformation produced a slightly improved skew of nearly 2 and a kurtosis over 6.

Percentage of minorities came from the 2000 census and was measured as the percent of non-white residents. Cities ranged from just under 2 percent minority to 88 percent minority. Cities averaged 22 percent minority with a median of 18 and standard deviation of 17. Although a histogram showed the distribution was positively skewed, kurtosis and skew for percent of minorities was less than 1.

Metropolitan status indicated whether ICMA designated the city as a central, suburban, or independent city. Most cities were classified as suburban cities (57%). The remaining cities were categorized as central (23%) or independent (20%) cities.

The second structural component consisted of socioeconomic conditions. Socioeconomic variables came from both the US Census Bureau and ICMA's economic development survey. Data from the 1997 census of governments included city expenditures as well as the ratio of city revenues to expenditures. Total city expenditures ranged from 3.5 million to nearly 2 billion dollars. Cities spent an average of 78 million dollars with a median of 34 million dollars and standard deviation of 174 million dollars. To adjust for the skew of 7 and kurtosis of 59, I transformed city expenditures

logarithmically. The transformation produced a distribution with skew and kurtosis below 1.

I also examined city expenditures in context of city revenues. I created a balanced-budget measure by dividing city expenditures by revenues. The resulting ratio variable ranged from .5 to 2. The mean and median of .97 indicates that most cities earned about 3% more than they spent. The variable had a slightly leptokurtic distribution (kurtosis=7).

The remaining socioeconomic variables came from the ED survey. Three open-ended questions asked respondents to write-in the personal income, unemployment rate, and housing costs in their jurisdiction. Personal income averaged 26,000 dollars with a median of 21,000 and standard deviation of 15,000. To improve a skew that exceeded 2, I logged the income variable, and the transformation yielded a skew and kurtosis under 1.

A second open-ended question asked respondents to write-in the unemployment rate for their jurisdiction. Data for the unemployment rates of two cities were abnormally high, and I used data from the city/county data book to recode unemployment values for these two cities from 95% and 99% to 2% and 4%, respectively. After recoding these two cities, unemployment responses averaged 4 percent and ranged from 1 to 30 percent with a median and standard deviation just over 3 percent. The skew over 4 and kurtosis of 25 led me to logarithmically transform the unemployment rate. The transformation produced a skew and kurtosis under 1.

The third open-ended question asked respondents to estimate the median cost of a single-family dwelling in their jurisdiction. Housing costs averaged \$134,000 with a

median of 115,000 and standard deviation of \$77,000. Due to a skew of 2 and kurtosis of 5, I logarithmically transformed housing-costs, producing a skew and kurtosis below one.

Another socioeconomic condition consisted of the city's economic base. The ED survey asked respondents to describe their the city's primary industrial economic base over the past five years in terms of the following response options: agriculture, manufacturing, retail/service, institutions (government/military/nonprofit), residential (commuters), tourism/hospitality, warehousing/distribution, and technology/telecommunications. I used these categories to create a dichotomous indicator of each city's primary economic base. One-fourth of respondents indicated that their city's economy was based in technology or manufacturing, while three-fourths were based in other industries.

Transportation infrastructure provided another proxy of socioeconomic conditions. One question asked respondents to indicate if their jurisdiction had the following modes of transportation: railroad, airport, port, truck route, major waterway, and major highway. I added these six items together to form an index. A second question asked about barriers to economic development. When respondents indicated that traffic was a barrier to local economic development, I subtracted one point from the transportation infrastructure index. The final transportation infrastructure variable had a potential and actual range of 0 to 7 with a mean of 3.8 and a standard deviation of 1.4.

Respondents to the ED survey were also asked to list the number of universities and colleges in their jurisdiction. I created a dichotomous variable called educational opportunities that indicated whether or not each city had a college or university. Forty-three percent of respondents indicated having a college or university in their jurisdiction.

The last socioeconomic variables consisted of land-and labor barriers to economic development. Respondents were presented with a checklist of ten barriers to economic development and asked to check all applicable barriers. A follow-up question asked respondents to rank the top two barriers. For the land-barrier variable, I assigned a value of one to the respondents who checked “availability of land” as a barrier to economic development, and a value of zero to those who did not. I then added one or two points to the land-barrier variable when respondents indicated that the availability of land was the first (two points added) or second (one point added) biggest barrier to economic development. Thus, the land-barrier variable had four categories that ranged from 0 to 3. Forty percent of respondents had a value of zero, indicating that land availability was not mentioned as a barrier to economic development. Sixty percent of respondents indicated that land availability was a barrier: 17% had a value of 1, 12% had a value of 2, and 31% had a value of 3. The latter category indicates that nearly a third of respondents cited land availability as the city’s top barrier to economic development.

The labor-barriers variable also came from the question that asked about barriers to economic development. I assigned a value of 1 to respondents who indicated that a “lack of skilled labor” or a “limited number of major employers” were barriers to economic development. I then added one or two points to the labor-barrier variable when respondents indicated that a lack of skilled labor and/or a limited number of major employers the first (two points added) or second (one point added) biggest barrier to economic development. The labor-barrier variable had seven potential values ranging from 0 to 6, but due to a small number of respondents in the top two categories, I combined the top three categories for a final four-category variable ranging from 0 to 3.

Thirty-seven percent of respondents had a value of zero, indicating that labor was not a barrier to economic development. The other forty-three percent indicated that a lack of skilled labor and/or a limited number of major employers was a barrier: 17% of respondents had a value of 1, 20% had a value of 2, and 26% had a value of 3. Although frequency distribution for this labor-barrier variable resembled that of the land-barrier variable, only 16% of respondents had identical values across the two variables.

The third and final structural component, competition for economic development, consisted of regional, state, and city level effects. I measured regional effects according to each city's location within the US Census Bureau's definition of the four US regions. Cities in my analysis came from the Northeast (14%), North Central (30%), South (28%), and West (27%).

I measured state level impacts using three indexes that ranked states on economic development issues in terms of their performance, business vitality, and development capacity. The performance index measured how well states provided opportunities for employment, income, and improved quality of life. The business vitality index measured the health of the businesses in terms of their competitiveness, entrepreneurial activities, and industrial diversity. Finally, the development capacity index measured the potential for future economic development using measures of innovation assets as well as human, financial, infrastructure, and natural resources. The three state rankings were taken from the 2000 Development Report Card for the States. I recoded the three indices such that 50 represented the highest ranked state and 1 the lowest. I then summed the three indices and divided by three to create an average score across the three indices.

I assigned all cities all cities in a given state the score for their state's ranking<sup>1</sup>. For example, I assigned all Californian cities their average state ranking score (32.7). The 76 cities from California represented 17% of all cities in the database. States with the next largest number of cities included Texas (9%), Florida (6%), and Illinois (6%). The final measure of state-level impacts consisted of a score averaged from the performance, business vitality, and development capacity indexes. This state-ranking score ranged from a low of 4.3 (Arkansas) to a high of 47.7 (Colorado). The average state ranking was 30.4 with a median of 31.7 and standard deviation of 9.3.

The third variable under competition for economic development – competition for investment – came from a question that asked respondents about their competition in attracting investment to their jurisdiction. The question asked respondents to identify their competition by checking all applicable items from the following six-item checklist: nearby local governments, other local governments within the state, local governments in surrounding states, other states, foreign countries, and other \_\_\_\_ (please specify). I constructed an additive index by summing the six items. The final index of competition-for-investment ranged from 0 to 6. The mean of 2.6 (median of 2) and standard deviation near 1 indicated that most cities competed for investment with several other governments.

#### Agency measures

All of the variables for the agency perspective came from two 1999 ICMA local government surveys: economic development and salaries. Components for the agency variables consisted of organizational characteristics, the local government's political

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<sup>1</sup> Assigning state-rankings to cities mixed the levels of analysis in my study and violated regression assumptions of independent observations. However, I decided that the benefits of testing state-level impacts outweighed the potential problems. Multi-level modeling would address the independence concerns, but the procedure was beyond the scope of this study.

institutional structure, and external forces. The first agency component, organizational characteristics, consisted of five categories: centralization, resources, technical capacity, formalized planning, and focus. Centralization indicated whether or not the city had a separate agency devoted to economic development. I constructed this dichotomous variable using items from both the salary and the economic development surveys. When respondents to the salary survey indicated having an economic development director, I assigned a value of one for the centralization variable. I also examined the job title of each respondent to the ED survey, and I assigned a value of one when the job title indicated that the respondent worked for an economic development agency. Thus, my centralization measure had a default value of 0 that I recoded to 1 when respondents to the salary survey indicated having an ED director or when respondents to the ED survey indicated that they worked in an ED agency. The resulting measure of centralization indicated that 69% of cities had distinct economic development agencies.

The second organizational category, resources, consisted of five variables. One resource variable came from an open-ended question that asked about staff size. Respondents were asked to write-in how many professional staff spent at least 70% of their time on economic development activities. Descriptive statistics for staff size indicated that respondents averaged 2 staff per city, with a standard deviation near 4. Due to a skew over six, I performed a logarithmic transformation and reduced the skew to 1 with a kurtosis of 2.

A second resource variable asked about the budget for economic development in fiscal year 1999. Respondents were asked, "How much did your local government budget for economic development activities for FY 1999?" Responses ranged from a

budget of 0 dollars for nineteen cities to a budget of 35 million dollars. Annual budgets averaged \$928,000 with a median of \$169,000 and standard deviation of \$3,289,000. To adjust for the skew over 7 and kurtosis of 56, I performed a logarithmic transformation on the economic development budget. The transformation produced a distribution with a negative skew of  $-2.36$  and kurtosis of 7.

I also considered a relative measure of the economic development budget by dividing each city's economic development budget by its total expenditures. I multiplied the ratio by 100 to ease interpretation, and the resulting variable showed the percent of total city expenditures devoted toward the economic development budget. Economic development budgets ranged from 0 to 40 percent of total city expenditures, but the mean of 1.75 and median of .44 indicated that for most cities, economic development budgets represented less than 2 percent of total city expenditures. Ninety-five percent of cities devoted less than 7% of their total expenditures toward the economic development budget, yet the variable displayed a positive skew and a kurtosis of 30. I logarithmically transformed the variable and produced a skew of 2 and kurtosis of 4.5.

For the third resource variable, funding barriers, I combined two responses – the cost of land and a lack of capital/funding – from a question that asked about barriers to economic development encountered by the local government. The question presented respondents with a checklist of ten barriers, and a follow-up question asked respondents to pick the top two barriers from the list of ten. I added one or two points to the funding-barriers index if respondents indicated that the cost of land and/or a lack of capital/funding were the first (two points added) or second (one point added) biggest barriers to economic development. The funding-barrier variable had six potential values

ranging from 0 to 5, but due to a small number of respondents in the top two categories, I combined the top three categories for a final four-category variable ranging from 0 to 3.

One-third of respondents had a value of zero, indicating that cost of land and a lack of capital/funding were not mentioned as barriers to economic development. The other two-thirds indicated that funding was a barrier: 19% mentioned funding or land costs was a barrier, 25% indicated that either a) funding and land costs were both barriers or b) that funding or land costs was the second greatest barrier to ED. The remaining 23% of respondents indicated that funding and/or land costs were the top barriers to ED.

For the final resource variable, I considered the relative salaries of the ED directors<sup>2</sup>. Salary information came from ICMA's 1999 salary survey, a one-page questionnaire that asked respondents to list the name, sex, race, and annual salary of 23 local officials. Annual salaries of local ED directors ranged from \$29,000 to \$131,000, with an average of \$69,000, median of \$67,000, and standard deviation of nearly \$19,000. To show how the ED director was valued locally, I divided the salary of the ED director by the salary of the highest paid appointed local official. Higher numbers on this ratio variable indicated a greater importance of the ED director as measured by their relative salary. This measure of salary importance ranged from .4 to 1 with a mean and median of .71.

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<sup>2</sup> The salary variable had a high rate of missing data due to a dataset merge. Nearly half of all cities did not respond to *both* the salary survey and the economic development survey, and thus merging respondents to both surveys drastically reduced my sample. Rather than deleting nearly half of the database prior to all analysis in order to include the salary variable, I first tested the variable's impact in a bivariate logistic regression. Bivariate results showed that salary importance did not significantly predict my dependent variable. My analytic strategy called for dropping variables that were non-significant at the bivariate level, and thus I would drop the salary variable prior to multivariate analysis. In short, salary importance did not influence performance measurement, and thus I decided to retain the cities that would have been deleted due to their missing data on the salary variable. Doing so allowed me to include an additional 197 cities in my multivariate analysis. Note that descriptive statistics on the salary variables are based on a smaller sample of 245 cities. All other variables are based on the final sample of 442 cities.

A direct measure of the second organizational category, technical capacity, was not available, and instead I used four proxy variables to estimate the amount of economic development activity by local government. I constructed each proxy as an additive index by summing items that described economic development activities or programs. The more activities or programs adopted, the greater the technical capacity for economic development. I grouped the items into four categories: incentives, technology applications, community-based economic development, and overall economic development activity. Histograms on all four of the technical capacity indices indicated a slightly positive skew such that more cities were clustered around the lower end of each technical capacity index.

I derived the first technical capacity index, incentives, from a checklist of 23 incentives that could be offered by local governments. Examples of items in the incentives index include low-cost loans, tax credits, grants, and free land. The incentives index had a potential of 23 values, but actual responses ranged from 0 to 18. The mean and median indicated that on average, cities offered 5 incentives to businesses.

The second index of technical capacity, technology applications, consisted of 13 technology items (e.g., videos, faxes, on-line computers, and fiber-optic networking) that were used as part of ED efforts. Responses ranged from 0 to 10. Cities averaged 4.4 technology applications, with a median of 4 and standard deviation of 2.

The third technical capacity index, community-based economic development, consisted of five items (micro-enterprise program, welfare-to-work, job-training, community-development-corporation, and community-development loan fund) that served as indicators of community-based economic development programs (Warner,

2001). Responses on the additive index ranged from 0 to 5 with an average of just under 2 community-based economic development programs per city.

For the fourth index of technical capacity, overall economic development activity, I constructed an additive index from a checklist of 29 programs (e.g., ombudsman program, ambassador program, local business publicity program) and activities (e.g. business incubator, marketing assistance, media advertising, small-business development center). These programs and activities were listed as possible economic development efforts in business retention, business attraction, and small business development. Responses on the index ranged from 0 to 23. Cities averaged nearly 8 economic development activities and programs with a standard deviation under 5.

Formalization, the third organizational category, consisted of items that asked about planning as well as written procedures. Combining the formalization and planning aspects provided a category more accurately labeled formalized planning. I constructed the formalized planning variable from four items that asked respondents whether or not their cities had written plans for economic development, business retention, business attraction, and small business development. I constructed a two-category dummy variable that measured whether or not the local government had written plans in any of the four areas. Sixty-three percent of cities had written plans, and 37% did not have written plans.

The survey also contained three items that asked about cities' criteria for determining incentive eligibility and performance. Specifically, the survey asked whether or not cities used formal written criteria to determine incentive eligibility, cost/benefit analysis prior to offering incentives, and performance agreements as a condition for

providing business incentives. These items represent important forecasting methods, but they overlap conceptually with performance measurement. I excluded the items from my analysis to avoid confounding them with my dependent variable.

The last organizational category concerned the focus of ED efforts. Because the priorities of an ED agency manifest themselves through work activities, I examined the amount of work time that staff spent on three areas of economic development: retention, attraction, or development. An open-ended question asked respondents to estimate the percentage of staff time devoted toward these three activities. I divided the time devoted toward development by the time devoted toward all retention, attraction and development activities combined. The resulting ratio variable measured the extent to which staff worked on development rather than attraction and retention activities. Higher numbers indicated that staff placed a greater emphasis on development activities. I multiplied the ratio variable by 100 to ease interpretation, and the resulting staff priority variable ranged from 0 to 100. The mean of 44 and median of 40 indicated that most cities devoted less than half of their staff time toward development activities. Instead, cities spent about 60 percent of their time on retention and attraction activities. However, the large standard deviation of 25 percent suggested a wide variation in the types of activities pursued by economic development staff.

In addition to organizational characteristics, agency components also consisted of the political institutional structure and external forces. The second agency component, the local government's political institutional structure, consisted of one variable that reflected ICMA's designation of the local form of government. Of the 434 cities in the final database, ICMA classified 18% as mayor-council, 80% as council-manager, and 2%

as commission, town meeting, or representative town meeting. I combined the council-manager, commission, and town-meeting categories to create a two-category variable. I designated cities as either mayor-council (18%), or council-manager/other (82%).

The third and final component of the agency perspective consisted of external forces. External forces came from citizens, businesses, and government organizations outside the economic development department. In terms of government organizations, the ICMA survey measured four influences: local government participation, extra-local government participation, partnering, and political support.

The measure of local government participation asked whether or not the city government was involved in the development of ED strategies. Findings showed that participation by city governments was nearly ubiquitous – all but 9 respondents indicated that their city governments participated in the development of ED strategies. Due to the lack of variation on this measure, I dropped the item from further analysis.

The next measure of government participants, extra-local government participation, came from five questions that asked about the involvement of state and federal governments. The first question asked whether or not state or federal governments participated in the development of ED strategies. The second question asked whether or not state and federal grants-in-aid were used to fund local economic development programs. Follow-up questions asked respondents to select the top two participants from a list of twelve and the top two revenue sources from a list of eight. I added one or two points to the extra-local participation measure if the state or federal government was considered the first (two points added) or second (one point added) most important participant or revenue source. The final item came from a checklist of

incentives that asked respondents to indicate whether or not federal/state designated enterprise zones were used locally. To construct the index of extra-local government participation, I summed responses to the five questions. The index had a potential range from 0 to 11, but actual values ranged from 0 to 7. Due to the small number of respondents scoring a 4 or above, I combined the top four categories. The final measure of extra-local government participation was a five-category variable ranging from 0 to 4. Frequencies on extra-local government participation showed that nearly two-thirds of cities (64%) indicated that the state or federal governments funded or participated in local economic development. Sixteen percent of cities scored a value of 4 or higher, indicating the greatest degree of participation and funding by state and federal governments. Fifteen percent of cities scored a value of 3, 13% scored a 2, and 19% scored a 1. Over a third of respondents (36%) indicated that neither state nor federal governments funded or participated in their local economic development efforts.

The third indicator of government participation, partnering, measured cooperative activities between governments. The cooperative aspect of this partnering variable contrasted with the competition-for-investment variable described earlier under the structural framework. I constructed a three-category partnering variable by summing two items from a checklist of business retention and attraction activities. I assigned one point when respondents indicated that their local government used “partnering with other local governments” as a business retention activity. I also assigned one point when respondents indicated that their local government used “regional approaches (pooling resources)” as a way to attract businesses. Respondents who indicated using both partnering approaches received two points. Nearly half of cities (47%) did not use either

of the partnering activities, but most cities (53%) reported partnering as a business attraction or retention activity: 24% of cities used both partnering activities and 28% used only one partnering activity.

The fourth and last government influence involved political support. I measured political support with a single item that indicated whether or not a lack of political support had been a barrier to local economic development efforts. Only fifty-one cities (11%) indicated that a lack of political support was a barrier to economic development.

In addition to government influences, external forces also came from business and citizen activism. I constructed business activism from two questions. The first question asked respondents if private companies contributed money to the local government's marketing efforts. The second question asked whether or not any of the following business groups were involved in the development of ED strategies: chamber of commerce, private business, private economic development foundation, and utility. I summed responses from both questions to form an additive index. I then added one or two points to the business activism index if any of the four business groups were considered the first (two points added) or second (one point added) most important participant in the development of ED strategies. The resulting variable had 9 potential and actual values ranging from 0 to 8. However, due to a small number of respondents in the upper categories, I combined the top 5 categories. The final business activism variable was a five-category dummy variable ranging from 0 to 4. A very large majority of respondents (91%) indicated that businesses participated in the development of local ED strategies. Seventeen percent of cities scored a 1 on businesses activism, 21% scored

a 2, 24% scored a 3, and 29% scored in the highest category, 4. Only 9% indicated that businesses did not participate in the development of local ED strategies.

I measured the final type of external force, citizen activism, with two questions. The first question asked whether or not the following two citizen groups were involved in the development of ED strategies: citizen advisory board/commission and ad hoc citizen group. The second question asked whether or not citizen opposition had been a barrier to local economic development efforts. Follow-up questions asked respondents to select the top two participants from a list of twelve and the top two barriers from a list of ten. I added one or two points to the citizen activism index if a citizen group was considered the first (two points added) or second (one point added) most important participant or barrier. The resulting variable had a potential range from 0 to 8, but actual values ranged from 0 to 6. Due to the small number of respondents in the top three values, I combined the upper four categories. The final four-category measure of citizen activism ranged from 0 to 3. Most respondents (72%) indicated that citizens did participate to varying degrees: 26% scored a 1 on the citizen activism scale and 29% scored a 2. Seventeen percent of respondents scored in the upper value of 3 or higher on the citizen activism measure. However, 28% of respondents scored a 0, indicating that citizens in nearly a third of the cities did not participate in ED planning.

### Analysis

The categorical nature of my dependent variable led me to use logistic regression for my inferential analysis. The score test for the proportional odds assumption revealed that the data was not appropriate for ordinal logistic regression, and thus I used

multinomial logistic regression for all models. I evaluated statistical significance at the .05 probability level, and I used directional, one-tailed hypothesis tests.

At the model level, I assessed statistical significance using the model chi-square statistic. I also computed a pseudo- $R^2$  for all models using the formula suggested by Aldrich and Nelson (1984): model chi-square statistic / (sample size + model chi-square statistic). However, these and other authors (Long, 1997) have cautioned against pseudo- $R^2$  measures in models with categorical dependent variables. Unlike linear regression models with continuous dependent variables, in logit models the goodness of fit index has no clear interpretation in terms of variation explained. Thus, I used the pseudo- $R^2$  only as a comparative measure to consider how pseudo- $R^2$  values differed across models.

At the variable level, the large number of explanatory variables in my theoretical model increased the likelihood that multicollinearity would suppress significant findings. Consequently, I took steps to derive a more parsimonious analysis. To test for collinearity at the bivariate level, I examined correlation coefficients for all numeric variables and cross-tab frequencies for all categorical variables. At the multivariate level, I tested for multicollinearity using the variance inflation factor. Since logistic regression does not calculate a variance inflation factor, I derived the statistic from ordinary least squares regression. Where variables overlapped, I eliminated or combined variables.

At the parameter level, I took additional steps to derive a parsimonious analysis. I used a trimming approach to remove independent variables that did not correlate significantly with any of the three parameters of my dependent variable. I trimmed variables at the bivariate, component (e.g., demographics, external forces) and framework (structure, agency) levels. I combined all significant independent variables

into a final predictive model. At the parameter level, I interpreted the odds coefficients rather than the log-odds.

I also evaluated the impact of structure and agency frameworks. I compared variables within each framework by running separate models for the trimmed structure and agency variables, respectively. I then compared the pseudo- $R^2$  values between the structure and agency models.

### Summary of Methods

The degree to which locals can influence the factors that affect performance measurement determined whether I examined the independent variables from a structural or agency perspective. Local actors have little or no influence over the three structural components in my study – community demographics, socioeconomic conditions, and competition for ED. Agency components, which are more easily influenced by local actors, consisted of organizational characteristics, local political institutional structure, and external forces. Compared to the set of structural variables, I expected that the set of agency variables would have a greater impact on the use of performance measurement in economic development. The next chapter tests this hypothesis.

## V. FINDINGS

While the previous chapter discussed univariate statistics, this section presents bivariate and multivariate findings. Before interpreting the regression models, I describe results of the trimming approach I used to derive a more parsimonious analysis. I trimmed variables due to high collinearity as well as non-significance at the bivariate and multivariate levels.

### Collinearity Findings

In addressing collinearity, my purpose was to examine and where appropriate reduce the empirical overlap between variables. All variables had acceptably low associations except where noted. I discuss collinearity problems only where the empirical overlap between variables affected my findings. Below I describe major collinearity finding and the steps I took to reduce redundancy between variables.

#### The link between population size and city expenditures

With a Pearson correlation coefficient of .86, population size and city expenditures demonstrated the strongest relationship between explanatory variables in the dataset. In addition, the variance inflation factor exceeded 6 for both variables, prompting me to further examine the relationship between population size and city expenditures. Although both variables significantly predicted performance measurement in bivariate regressions, they became non-significant in the full model containing all variables. Together, these findings suggested that multicollinearity between population size and city expenditures was affecting my results.

To a large extent, the size of a city's population drives its expenditures. But when compared to population size, city expenditures present a more direct link to municipal

policymaking. Because city expenditures was more proximate to my dependent variable than population size, I dealt with collinearity between the two variables by keeping city expenditures and removing population size from further analysis.<sup>3</sup>

### Bivariate Trimming

I used bivariate logistic regression analysis to trim non-significant independent variables and derive a more parsimonious model. From the structural perspective, four socioeconomic variables were not significant in the bivariate regression analysis: relative population growth, land availability, educational opportunities, and balanced city budget. From the agency perspective, three additional variables were also not significant: funding barriers, local importance of ED director (i.e., relative salary), and political support. I dropped all seven variables from further analysis.

### Multivariate Trimming

I also trimmed variables at the multivariate level. Initially, I tested variables within each component (e.g., demographics, socioeconomics, competition-for-development, organizational characteristics, political institutional structure, and external forces). Next, I tested variables within each framework (i.e., structure and agency). When variables were significant, I kept them in next stage of my analysis. My purpose here was to trim non-significant variables, and I focus on the sign and significance level. After trimming, I provide a detailed interpretation of all effects for the final regression model.

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<sup>3</sup> As an alternate approach the multicollinearity problem, I also tried combining population size and city expenditures. I constructed a ratio variable that divided city expenditures by population size. The ratio variable was non-significant in bivariate logistic regression analysis. Given that the two variables were individually significant, I decided against using the ratio variable as a solution for their multicollinearity.

### Trimming within components

Tables 4 through 10 display results for all regression analyses at the component level. All models were significant at the .01 probability level.

#### Component trimming: Structural variables

Tables 4 through 6 display logistic regression results for the three structural components: demographics of the community, socioeconomic conditions, and regional competition. Table 4 shows that the demographic variables had a pseudo- $R^2$  value of .06, and that both variables were significant in the predicted directions. The city type variable indicated that central cities were more likely than suburban cities to adopt performance measures. Race also had a significant positive effect. As the percent of minorities in the city increased, so did the likelihood of cities using performance measures.

The socioeconomic conditions in Table 5 show that the effects of personal income, unemployment rate, and housing values were not significant. I dropped these variables from further analysis. In contrast, city expenditures, transportation infrastructure, industry base, and labor/employer barriers had significant positive effects on the use of PM in ED. The pseudo- $R^2$  value of the socioeconomic variables was .17.

Of the competition-for-economic-development variables shown in Table 6, only the state ranking on economic development criteria was non-significant. Competition for investment and US region had significant positive effects. The pseudo- $R^2$  value of the competition-for-economic-development variables was .12.

#### Component trimming: Agency variables

Tables 7 through 10 show the results of logistic regression models for the agency components: organizational characteristics, political institutional structure, and external

forces. Given the large number of organizational characteristics, I first ran separate models for three organizational sub-components: resources, capacity, and priorities. Organizational resource explanations (Table 7) showed significant positive effects for staff size and budget, but the budget-to-expenditures ratio variable was not significant. The organizational resource variables had a pseudo- $R^2$  value of .14.

For organizational capacity (Table 8), economic development incentives and activities had significant positive effects, while technology applications and community-based economic development dropped from significance. The pseudo- $R^2$  value of the organizational capacity variables was .41. This value was twice as high as any other model's pseudo- $R^2$  value.

Organizational priorities (Table 9) showed significant positive effects for centralization and formal planning, but time spent on development was not significant. The pseudo- $R^2$  value of organizational priorities was .09. I also tested my prediction that formal planning and staff time spent on development would depend on resources. Neither of these interactions had significant effects.

A two-tailed hypothesis test on the organizational priorities variables (Table 9) would have revealed that staff time had an unexpectedly negative effect. When staff spent more of their time on development activities rather than on retention and attraction activities, performance measurement was *less* likely. A two-tailed hypothesis test would have shown that every one-percent increase in staff time spent on development reduced the odds of using both effectiveness-and-efficiency vs. neither effectiveness-nor-efficiency by .26 times. Similarly, a two-tailed hypothesis test would also have indicated that for every one-percent increase in staff time spent on development, the odds of using

either effectiveness-and-efficiency (vs. neither effectiveness-nor-efficiency) were .45 times smaller. Since my analysis used a one-tailed hypothesis test, Table 9 does not display significance levels for these unexpected effects.

Political institutional structure consisted of only one variable, form-of-government. Since regressing this one variable provided a bivariate analysis, I do not display the results in a table. In terms of findings, I expected form-of-government to be non-significant, but results indicated that mayor/council (rather than council-manager) had a negative effect for one parameter (both effectiveness-and-efficiency vs. either). The other two parameters were not significant.

The external-forces variables shown in Table 10 had a pseudo- $R^2$  value of .13. Results from the external-forces variables indicate that partnering and state/federal government participation had positive impacts on performance measurement. Business activism and citizen activism were not significant, and I dropped these variables from further analysis.

A two-tailed hypothesis test would have revealed a significant negative impact for citizen activism. Compared to cities with no citizen activism, cities high in citizen activism were *less* likely to adopt performance measures. Specifically, the odds of using *either* effectiveness-or-efficiency (rather than *neither* effectiveness-nor-efficiency) were .33 times smaller in cities high in citizen activism, when compared to cities with no citizen activism. I had predicted that citizen activism would have a positive impact

#### Trimming within frameworks

After removing non-significant predictors at the component level, I trimmed again at the framework level by entering the remaining variables into three models. The first

two models combined all significant variables from the structure and agency frameworks, respectively. The third model combined the trimmed results of the first two models

Framework trimming: Structural perspective

To test the effects of structural factors, I combined significant variables from the demographic, socioeconomic, and regional competition components (from Tables 5,6, and 7). Table 11 displays the results of regressing performance measurement on these trimmed structural variables. With 26 degrees of freedom, the model chi-square value of 126 is significant ( $p < .01$ ), and the pseudo- $R^2$  value of the structural variables is .22.

When placed in context of other structural explanations, both demographic variables and one socioeconomic variable dropped from significance. Table 11 shows that city type, percent of minorities, and industry base were all non-significant. I removed these variables from further analysis.

The remaining structural variables had significant impacts on performance measurement. Table 11 shows that variables from both the socioeconomic (city expenditures, transportation infrastructure, and labor/employers as an ED barrier) and competition-for-economic-development (competition for investment, US region) components all had positive effects. I entered the five significant structural variables into the combined structure and agency model.

Framework trimming: Agency perspective

Table 12 shows the regression results for the trimmed agency variables. With 26 degrees of freedom, the model chi-square value of 342 is significant ( $p < .01$ ). The pseudo- $R^2$  value of the agency variables is .44, which is twice as large as the .22 pseudo- $R^2$  value of the structural variables.

Of the nine agency variables shown in Table 12, only four reached significance at the .05 probability level when controlling for other agency variables. Two of the six organizational characteristics remained significant: ED incentives displayed a significant positive impact across two comparisons (both vs. neither, either vs. neither), and formal planning had a positive significant impact on the last comparison (both vs. either). At the .10 probability level, ED budget, ED activity, and centralization were all significant, but I dropped these variables because they failed to reach significance at the .05 probability level. ED staff size was not significant in any of the three comparisons. Form of government had a significant positive impact for one comparison (either vs. neither). In terms of external forces, high levels of partnering (vs. no partnering) were significant for the third comparison (both vs. either). State/federal government participation did not have a positive significant impact, and I dropped the variable from further analysis.

A two-tailed hypothesis test would have revealed significant negative effects for the two highest levels of state/federal government participation. A two-tailed hypothesis test would have shown that, compared to cities with no state/federal government participation, the odds of using both effectiveness-and-efficiency (vs. neither effectiveness-nor-efficiency) were .32 times smaller in cities with a high level of state/federal government participation. This negative effect became more pronounced as state/federal government participation increased. In cities with the highest level of state/federal government participation (compared to those cities with no state/federal government participation), the odds of using performance measures were .23 times smaller (both effectiveness-and-efficiency vs. neither) and .17 times smaller (either effectiveness-or-efficiency vs. neither), respectively. In other words, when controlling for

other agency variables, cities with the highest amount of state/federal government participation were the least likely to use performance measures. I had expected the opposite effect.

In sum, only four of the nine agency variables shown in Table 12 had impacts that were significant in the hypothesized direction: economic development incentives, formal planning, form-of-government, and partnering. I entered these four agency variables into the combined model of structure and agency variables

#### Trimming across frameworks: Structure and agency combined

Table 13 displays results of a model that combined the structure and agency perspectives. The model chi-square value of 352 is significant, and the pseudo- $R^2$  value is .44. Eight of the ten variables remained significant in one or more comparisons. However, two variables dropped from significance: transportation infrastructure and form-of-government. I removed both transportation infrastructure and form-of-government from further analysis and entered the remaining eight variables into a final trimmed model.

#### Multivariate Regression Findings

The final model consisted of eight variables that were significant after trimming at the bivariate, component, and framework levels. For this final trimmed model, I present a detailed interpretation of effects at the model, variable, and parameter levels. At the parameter level, I limit my interpretation to odds coefficients that were significant at the .05 probability level. I also use the eight variables to test the fundamental hypothesis of this study – that agency variables would have more impact on performance measurement than structural variables.

### Final model: Structure and agency

Table 14 shows the final trimmed model estimating structure and agency effects. With 24 degrees of freedom, the model chi-square value of 349 was significant ( $p < .01$ ), and thus, the structure and agency variables partly explain the cumulative log odds of performance measurement. The pseudo- $R^2$  value was .44, and all eight variables were significant.

Table 14 displays three columns of parameters per variable. Note that the first two columns of parameters (*both* effectiveness-and-efficiency vs. *neither* effectiveness-nor-efficiency) contain comparisons that distinguish between use and non-use of performance measurement. In contrast, the parameter in the third column compares two categories of performance measurement use: *both* effectiveness-and-efficiency vs. *either* effectiveness-or-efficiency. Thus, the third parameter distinguishes between the amount and type of performance measurement used, whereas the first and second parameters contrast use vs. non-use. My discussion notes all significant differences, but I emphasize the substantively more compelling distinctions in categories of performance measurement use: *both* vs. *neither* and *either* vs. *neither*.

In terms of parameter estimates, the findings shown in Table 14 indicate that the total amount of money spent by a city affected the likelihood that it would use performance measures. As the log of city expenditures increased by one dollar, the odds of using *both* effectiveness-and-efficiency vs. *neither* effectiveness-nor-efficiency were 1.54 times greater. The second comparison was also significant, and for every one-dollar increase in the log of city expenditures, the odds of using *either* effectiveness-or-efficiency vs. *neither* effectiveness-nor-efficiency were 1.45 times greater. The third

comparison (both vs. neither) was not significant. These findings indicate that as city expenditures increased, so did the likelihood that cities would use effectiveness and/or efficiency indicators in their economic development programs.

Table 14 also shows significant findings for labor/employers as an ED barrier, a four-category dummy variable. Compared to the reference category (cities where labor/employers were *not* an ED barrier), the odds of using performance measurement (both vs. neither) in cities where labor and/or employers were considered the #2 ED barrier was 3.68 times higher. Other comparisons of both vs. neither and either vs. neither were not significant for the labor/employer variable. However, labor/employers as an ED barrier did have significant positive effects across all dummy variable categories for the third comparison – *both* effectiveness-and-efficiency vs. *either* effectiveness-or-efficiency. When labor and/or employers were considered a barrier to economic development (compared to cities where labor and/or employers were not considered a barrier), the odds of using *both* effectiveness-and-efficiency vs. *either* effectiveness-or-efficiency were two or more times higher. These findings illustrate how a city's employment opportunities influenced the use of performance measurement in economic development. Performance measurement was more likely to occur in those cities where a lack of skilled labor and/or major employers were perceived to be a barrier to economic development.

The positive impact of labor and employer barriers was supported by the effect of a third structural variable, competition for investment. Competition for investment was a seven-category index where higher scoring cities had more competitors for economic investment. For each additional competitor to the city, the odds of using *both*

effectiveness-and-efficiency vs. *neither* effectiveness-nor-efficiency were 1.42 times higher. The other two comparisons were not significant at the .05 probability level.

US region provided further evidence of how competition influenced the use of performance measurement. Region of US was a four category dummy variable (South, North-Central, North-East, West). Table 14 shows that, compared to the reference category of Southern cities, the odds of using *both* effectiveness-and-efficiency (vs. *neither* effectiveness-nor-efficiency) were 2.58 times higher for North-Central cities. This regional effect was much more pronounced for the either vs. neither comparison. Compared to southern cities, the odds of using *either* effectiveness-or-efficiency (vs. *neither* effectiveness-nor-efficiency) were over four times higher for cities in the North-Central United States, and nearly three times higher for cities in the West. These findings underscore a strong regional effect where southern cities were less likely to use performance measurement.

Table 14 also displays agency variables and shows that the economic development incentives variable produced positive effects across two of the three parameters. The incentives variable was a summative index ranging from 0 to 18, where higher numbers represented greater incentives offered by local government. The first comparison indicates that, for each additional incentive offered by a city, the odds of using *both* effectiveness-and-efficiency (vs. *neither* effectiveness-nor-efficiency) were 2.78 times higher. Similarly, each additional incentive offered by the city increased the odds of using *either* effectiveness-or-efficiency (vs. *neither* effectiveness-nor-efficiency) by 2.65 times. The third comparison was not significant. Overall, these findings indicate

that the as the amount of incentives offered by a city increased, so did the likelihood of using performance measurement.

Formal planning denotes whether or not cities had written plans for economic development. Table 14 shows that for cities with written plans, the odds of using *both* effectiveness-and-efficiency (vs. *neither* effectiveness-nor-efficiency) were 2.28 times greater. While the second comparison (either vs. neither) was not significant, the impact of formal planning was strongest for the third comparison – both vs. either. In cities with written plans, the odds of using *both* effectiveness-and-efficiency (vs. either effectiveness or efficiency) was 2.78 times higher than in cities lacking written economic development plans. This finding underscores the link between planning and assessment.

Finally, partnering had a positive impact for one parameter. Partnering was a three-category dummy variable that measured two cooperative activities (i.e., partnering and pooling resources) between each city and other local governments. Findings for the partnering variable showed that one comparison was significant – cities with a high level of partnering. Compared to cities that did not use either partnering activity, the odds of using *both* effectiveness-and-efficiency (vs. *either* effectiveness-or-efficiency) were nearly two times higher in cities that used both partnering activities. This finding suggests that when cities work cooperatively with other local governments, they are more likely to optimize their use of performance measures.

Note that the effect of partnering lies in the distinction between the two categories of PM use: *both* effectiveness-and-efficiency vs. *either* effectiveness-or-efficiency. Thus, the impact of partnering occurs only in cities that use PM. In this sense, partnering is substantively the least important variable in Figure 4 because the other nine variables

distinguish between PM use and non-use. This caveat acknowledged, partnering did increase the likelihood of using both types of PM (effectiveness *and* efficiency) rather than just one kind (effectiveness *or* efficiency).

Together, these findings indicate that cities' use of performance measurement in economic development was influenced by city expenditures, labor and employer barriers, competition for investment, region of US, number of incentives offered, formal planning, and partnering activities. The next two sections consider the collective impact of these structure and agency variables.

### Structure versus agency

In the major research question for this study, I predicted that agency variables would have more impact on performance measurement than structural variables. I answered this research question with two approaches. First, I compared results of separate structure and agency models. Second, I considered how the agency perspective affected performance measurement over above the impact of structural perspective.

#### Structure and agency as separate models

For the first approach, I ran two additional models – one for the structural perspective and another for the agency perspective – in order to derive the model-level information used to compare the collective impact of variables from each perspective. Results of the two models are shown in shown in Tables 15 and 16.

Table 15 shows that the model chi-square of the trimmed structural variables was 95. With 16 degrees of freedom, the model chi-square was significant at the .01 probability level. The pseudo- $R^2$  value for the structural variables was .18.

Table 16 displays the trimmed agency variables. The model chi-square of the agency variables is 314, which is significant at the .01 probability level with 8 degrees of freedom. The pseudo- $R^2$  value for the agency variables was .42.

Results of the two models indicate that the pseudo- $R^2$  of the agency variables (.42) was more than twice that of the structural variables (.18). This finding indicates that, compared to the structural variables, the agency variables did a better job of explaining performance measurement in local economic development. These results confirm the major hypothesis of this study.

#### Agency impacts when controlling for structure

While the structural perspective represents fixed constraints that every city must face, the agency perspective represents choices made by local actors. All cities must contend with structural conditions, but what is the impact of local choice explanations (agency) after accounting for structural conditions? In other words, how much does the agency perspective contribute to performance measurement over and above the impact of the structural perspective? To answer this question I compared results of the nested structure-only model (Table 15) to the full structure-and-agency model (Table 14). The contribution of the agency variables (over and above the structural variables) lies in the difference between the structure-only model and the structure-and-agency combined model.

The structure-only model shown in Table 15 has a model chi-square of 95 and a pseudo- $R^2$  value of .18. Table 14 shows the addition of agency variables to the structural variables. This combined final model has a model chi-square value of 349 and a pseudo- $R^2$  value was .44. The difference between the between the structure-only model (Table

15) and the structure-and-agency combined model (Table 14) is a chi-square value of 254. With 8 degrees of freedom, this chi-square difference of 254 is significant at the .01 probability level. In terms of pseudo-R<sup>2</sup> values, the difference between the pseudo-R<sup>2</sup> of the structure-and-agency combined model (.44) and structure-only model (.18) was .26. Thus, adding the agency perspective to the structural perspective resulted in a pseudo-R<sup>2</sup> that was 1.44 times greater than that of the structural perspective alone.

These findings confirm that the set of agency variables were more important predictors of performance measurement than the set of structural variables. Substantively, these findings indicate that, even in the face of fixed structural constraints, local actors can influence the likelihood of using performance measurement in their cities' ED programs.

### Post Hoc Analyses

Results of my study raised additional questions that I examined as post hoc analyses. In this section I examine the direct and indirect effects of the incentives variable. I also explore the unexpectedly negative findings for staff priorities, citizen activism, and state/federal government participation.

#### Incentives as a mediating variable

Trimming at the components' level revealed unusual findings for the organizational capacity variables shown in Table 8. Specifically, the .41 pseudo-R<sup>2</sup> of the organizational capacity variables was only slightly lower than the .44 pseudo-R<sup>2</sup> of the final trimmed model. This high pseudo-R<sup>2</sup> value prompted me to further examine the organizational capacity variables.

Of the four organizational capacity variables shown in Table 8 (economic development incentives, technology applications, community-based economic development, and economic development activity), only two were significant at the component level – economic development activity and incentives. I examined bivariate regression analysis of economic development activity and incentives and discovered that, while both variables had strong effects, the bivariate pseudo- $R^2$  value of incentives (.40) was over twice as large as that of economic development activity (.17). In addition, the bivariate pseudo- $R^2$  value of incentives (.40) was only slightly lower than the pseudo- $R^2$  value of the final trimmed model (.44). The high pseudo- $R^2$  for incentives suggested that the variable was dominating the explanation of performance measurement use.

It makes sense that the number of incentives offered by a city predicted performance measurement. The incentives variable was more proximate to my dependent variable than any other independent variable, and cities that offer more incentives to businesses should be more likely to track the effectiveness and/or efficiency of those incentives. Still, the strong and dominating effect of the incentives variable suggested that it might also serve as a mediator for other important organizational variables. To test this idea, I modified my analysis. I removed the incentives variable and ran four additional models: a component-level model of all organizational characteristics (Table 17), a framework level model of all agency variables that were significant at the component levels (Table 18), a full model of all variables that were significant at the framework levels (Table 19), and a final trimmed model of all significant variables (Table 20).

Table 17 shows that the pseudo- $R^2$  value of the organizational characteristics was much lower (.24) without the incentives variable. Centralization was significant at the .10 probability level, but I dropped centralization and three other variables (balanced budget, technology applications, and staff priorities) that failed to reach significance at the .05 probability level. Five organizational variables were significant: staff size, ED budget, community-based ED, ED activity, and formal planning.

I entered these five variables into a model that included significant variables from the other two agency components: political institutional structure (form-of-government) and external-forces (partnering and state/federal government participation). Table 18 displays the results. The pseudo- $R^2$  value remained at .24, and two variables dropped from significance: form-of-government and state/federal government participation. I trimmed these variables, and entered the remaining significant agency variables into the full model.

Table 19 displays the full model of all agency and structure effects. Adding structural variables improved the pseudo- $R^2$  value to .30. City expenditures dropped from significance while transportation infrastructure remained significant. I removed city expenditures variable and ran a final trimmed model.

Table 20 displays the final trimmed model that resulted when I excluded the incentives variable from my analysis. Other than removing city expenditures, the variables are identical to those in the previous model (Table 19). Table 20 shows that the pseudo- $R^2$  value remained at .30, and all nine variables were significant.

The findings of this modified analysis indicate that excluding the incentives variable produced positive effects for three organizational variables (i.e., ED staff size,

ED budget, and ED activity). At the model level, exclusion of the incentives variable lowered the pseudo-R<sup>2</sup> value by .12. The pseudo-R<sup>2</sup> value of the trimmed model that included the incentives variable (.42) was much higher (.12) than the pseudo-R<sup>2</sup> value of the model that excluded incentives (.30).

Substantively, these findings point toward two conclusions. First, the amount of business incentives offered by a city played a large role in the likelihood that cities would use performance measures. Second, the incentives variable served not only as a direct effect, but also as a mediator for the indirect effects of three other organizational characteristics: staff size, ED activity, and ED budget.

#### Exploring unexpected findings

In this section I pursue an exploratory analysis to consider whether or not unexpected effects would impact the final model. I re-examined the three variables that would have reached significance if I had used a two-tailed hypothesis test. These three variables – staff priorities, citizen activism, and state/federal government participation – all came from the agency perspective. I use two-tailed hypotheses tests for this exploratory analysis.

Previously I dropped staff priorities and citizen activism due to unexpectedly negative effects in multivariate trimming at the component level. In keeping with my trimming approach, in this exploratory analysis I reintroduced staff priorities and citizen activism at the framework level, in conjunction with other agency variables that were significant at the component level. Table 21 shows that, with the addition of other agency variables, the staff priorities variable was no longer significant across all three parameters. Table 21 also shows that citizen activism continued to have a negative

impact for one parameter (either vs. neither), but this effect was significant only at the .10 probability level. Since both staff priorities and citizen activism were not significant at the .05 probability level, I dropped these variables from further analysis.

Analyzing all agency variables together led to a reversal of effects for one variable – state/federal government participation. Whereas state/federal government participation had significant *positive* effects at the component level (see Table 10), Table 21 shows that, with the inclusion of other agency variables, the highest degree of state/federal government participation had a *negative* impact for two parameters. I entered state/federal government participation and the four other significant agency variables (incentives, formal planning, form-of-government, and partnering) into a full model of all structure and agency variables.

Table 22 shows results of the full model for all structure and agency variables that were significant at the framework levels. State/federal government participation continued to have a significant negative effect. To derive a final trimmed model, I dropped two non-significant variables (transportation infrastructure and form-of-government). One variable (competition-for-investment) was significant at the .10 probability level, but not at the .05 level. I decided to keep this variable in order to maintain comparability with the final trimmed model of the one-tailed hypothesis tests (Table 14).

Table 23 displays the final trimmed model using two-tailed hypothesis tests. The model chi-square is 360 ( $p < .01$ ,  $df = 32$ ), and the variable of interest, state/federal government participation, continues to have a negative impact across most parameters. However, only one state/federal government parameter is significant at the .05 probability

level. Table 23 shows that, compared to cities with no state/federal government participation, cities with the highest level of state/federal government participation were .19 times *less* likely to use either effectiveness or efficiency (vs. neither effectiveness nor efficiency). This finding indicates that – even after controlling for other structure and agency factors – the highest level of participation by state/federal government reduced the likelihood that cities would use performance measurement.

Although one parameter of the state/federal government participation was significant, the variable consisted of four categories, and it is not clear if the variable as a whole (i.e., the four categories combined) improved the model derived from one-tailed hypothesis testing (Table 14). To determine if the inclusion of state/federal government participation improved the prediction of performance measurement, I considered model level information. The pseudo- $R^2$  value that resulted from adding state/federal government participation (.45) was slightly higher (.01) than that of the model that excluded the variable (.44), but the model chi-square values provide the best way to test whether or not this difference is significant. The chi-square value of the Table 23 model that includes state/federal government participation (359.69,  $df=32$ ) is higher than the chi-square value of the Table 14 model that excluded state/federal government participation (349.06,  $df=24$ ). But with 8 degrees of freedom, this model chi-square difference of 10.63 is not significant. Thus, the original model that used one-tailed hypothesis testing (Table 14) does a better job of explaining the cumulative log odds of performance measurement.

### Summary of Findings

Tables 24 and 25 summarize my trimming decisions, hypotheses, and findings. Model level findings showed that both the structure and agency perspectives influenced performance measurement, but the agency perspective had a stronger impact on performance measurement than structural perspective. In terms of variables, pseudo-R<sup>2</sup> values indicated that number of incentives offered by a city had the greatest influence on performance measurement. The incentives variable also mediated the effects of staff size, ED budget, and ED activity. Two other agency variables also had a direct impact: formal planning and partnering with other local governments. Structural variables exerted less influence on performance measurement, but still played an important role. Structural effects included city expenditures, labor and employer barriers, competition for investment, and region of US. The next section discusses implications of these findings.

## VI. DISCUSSION

In this section I propose a revised model of performance measurement in local economic development. I also discuss unexpected findings as well as implications of the study. Finally, I identify limitations and suggest areas for future research.

### A Revised Model of Structural and Agency Effects

Of 39 variables in my original model, only 10 remained significant through four stages of trimming. Given these findings, I revised the original model that I derived from the literature review (see Figure 2) to include only significant variables. Figure 4 illustrates the revised model, based on direct effects of the variables shown in Table 14 as well as the indirect effects of three organizational variables (shown in Table 20). In Figure 4, two components of the original model have been removed: demographics of the community and political institutional structure. Ten variables from the other four components (socioeconomic conditions, competition-for-economic development, organizational characteristics, and external forces) remained significant after extensive trimming.

The organizational characteristics of the agency perspective exerted the greatest impact on performance measurement. Of all variables in the study, the strongest predictor of PM came from the number of incentives a city offered to businesses. Part of the impact of the incentives variable was due to the indirect effects of three other organizational variables of the ED agency: staff size, budget, and ED activity. Figure 4 shows that staff size, budget, and ED activity do not have direct effects on performance measurement, but instead exert their influence indirectly, through the incentives variable. The final organizational variable, formal planning, underscores the link between planning

and the assessment activities of PM. Cities that had formal written plans for economic development were more likely to use performance measurement.

Closely related to these organizational characteristics was the partnering variable of the external-forces component. Cities were more likely to optimize their use of performance measurement when they partnered with other local governments and used regional approaches such as pooling resources. Partnering could also be considered an organizational characteristic because it signifies organizational boundary spanning.

Figure 4 also indicates that structural factors also predicted performance measurement. While the influence of city expenditures is straightforward, the impact of labor/employer barriers deserves more attention. When respondents perceived that a lack of skilled labor and/or major employers was a barrier to economic development, cities were more likely to use performance measures. While it could be argued that cities with labor market disadvantages would be more desperate and thus less likely to use accountability policies, findings of this study suggest the opposite effect. City leaders in disadvantaged labor markets were more likely to use performance measures – presumably because they were more concerned with the effectiveness and efficiency of incentive offerings and ensuring that their ED funds were wisely spent.

Finally, Figure 4 underscores the role of competition in economic development. Competition for investment was a seven-category index where higher scoring cities experienced more competition for investment from other local governments, states, and even foreign countries. Findings for this competition-for-investment variable indicated that, as cities experienced more competition in attracting investment to their jurisdiction, use of PM was more likely. US region provided another measure of competition, and the

findings showed a strong regional effect where southern cities were less likely to use PM than western and north-central cities. While these regional differences in municipal policies corroborate previous research, the competition-for-investment finding adds to the existing literature by showing that the competitive effects operate not only at the regional level, but also at the local, state, and even international levels.

### Unexpected Findings

Most of the variables from the original model that I derived from the literature review were significant at the bivariate level. However, two-thirds of the original variables dropped from significance through the trimming procedures. In this section, I consider reasons for the unsupported hypotheses. I also consider three variables with effects that were opposite of the predicted direction.

#### Hypotheses not supported

Several non-significant findings are noteworthy. Unlike previous ED research, I found no significant effects for community demographics such as population growth, minority population, and city type, as well as several socioeconomic explanations including income, unemployment, industry type (i.e., manufacturing & technology) and educational opportunities. In terms of agency variables, two organizational aspects were not supported. The staff-priorities variable was not significant in the expected direction. And the impact of centralization, measured as having a separate ED agency, diminished in the presence of other agency variables. In terms of external-forces, the reviewed literature suggested that interest groups within the city would play a large role in pushing for accountability in economic development, but

results of this study indicate that organizational and structural forces were more important than interest groups.

Multiple reasons may explain why these hypotheses were not supported. My study did not account for measurement error or for the random error that occurs in all research. In addition, other studies have operationalized some of the constructs differently – combining the socioeconomic conditions into a single indicator, for example, or using different measures. Another reason for unsupported findings may lie in the number of variables tested. The large number of variables in my original model increased the likelihood that many variables would drop from significance at some point in the trimming procedure.

Finally, specification error may explain some of the unsupported hypotheses. Substantive differences between the growth-oriented aspects of traditional ED policies and the evaluative aspects of PM may explain why some hypotheses were not supported. If so, the unsupported hypotheses point toward specification error and misunderstanding of the causal link between variables. The next section suggests a different conceptualization for three variables with unsupported hypotheses

#### Effects opposite of the predicted direction

Two-tailed hypothesis tests revealed significant effects in the opposite direction of my prediction for three agency variables: staff priorities, citizen activism, state/federal government participation. While post hoc analysis showed that none of the three variables made a significant contribution to the final trimmed model, their negative impacts at the component and framework levels merit further discussion.

### State/federal government participation

Perhaps the most surprising finding of this study involves extra-local participation by state/federal government agencies. I constructed this variable from five questions that asked about cities' use of state and federal grants-in-aid, state/federal enterprise zones, and participation by state and federal agencies in the development of local ED strategies. Given efforts to increase accountability in federal agencies (e.g., Government Performance and Results Act of 1993), I expected that state and federal participation would increase the likelihood of cities using performance measures. Instead, state and federal involvement had a negative influence.

One possible explanation is that city policymakers viewed state and federal grants as revenue that came with no strings attached. Local policymakers must answer to their constituents, and thus they are motivated to closely monitor the local funding of ED projects. However, those same constituents are unlikely to object to ED when projects are funded by extra-local state and federal revenue sources. Local policymakers may view state and federal money as a slush fund to be used with little or no accountability.

### Citizen activism

The ED and PM literatures showed that citizen activism encouraged the adoption of performance measures and progressive ED policies, and I expected citizen activism to positively impact PM. However, a two-tailed hypothesis test revealed that citizen activism in ED actually *reduced* the likelihood that cities would measure the performance of incentive packages. Performance measurement was less likely in cities where citizen advisory boards and citizen groups participated in the development of local ED strategies.

This unexpected and counterintuitive finding for citizen activism contrasts sharply with most previous research. But the finding is consistent with a study by Sullivan and Green (1999). In their analysis, Sullivan and Green were also surprised to find that citizen activism had a negative effect, and they suggested that business leaders may be participating as citizens and lobbying for less accountability. Similarly, activism by anti-tax citizens and coalitions may persuade local officials that performance measurement is a poor use of resources. In any case, these findings on the negative impact of citizen activism lend credence to Sullivan and Green's call for additional research on who participates as citizens in ED, as well as what issues citizen activists support.

Staff priorities: Time spent on development

The staff-priorities variables provided a third unexpected finding. I had expected that, when compared to retention and attraction activities, development activities would target broader community needs and thus increase the likelihood of cities using performance measures. However, a two-tailed hypothesis test revealed that when staff spent more of their time on development activities and less time on retention and attraction activities, performance measurement was *less* likely. I have no plausible theoretical explanation for this counterintuitive finding. Future research should examine development, retention, and attraction activities in more detail.

Implications of the Findings

Contributions of this study revolve around two related theoretical debates. The first debate concerns the relative importance of the structure and agency perspectives. The second, related debate involves the city-limits and urban-regime theories.

In municipal policymaking, both structure and agency matter

Both the PM and ED literatures have emphasized one research perspective to the neglect of another legitimate perspective. The ED literature has focused on the structural perspective while the PM literature has taken the agency perspective. This study filled a research gap by combining both agency and structural variables and testing both research perspectives simultaneously.

The findings indicate that agency or local community choices largely determined performance measurement in economic development. The most important local factors consisted of the organizational arrangements of the city's economic development agency – the staff size and budget as well as economic development plans, activities, and number of incentives offered. These organizational characteristics took precedence over political (i.e., form-of-government, political support) and community participation explanations (i.e., citizen and business activism).

Performance measurement in economic development also depended on factors outside the control of local community members. For this study, the important structural determinants were city expenditures, labor/employment barriers, regional geography, inter-city competition. These explanations provided more impact than other structural factors including the demographic characteristics of cities (i.e., population growth, metropolitan status, and percent of minorities), as well as other socioeconomic factors such as income levels, housing values, and educational opportunities. State-level policies (i.e., state rankings on economic development criteria) had no influence on city-level accountability.

Both the structure and agency perspectives helped explain performance measurement in local economic development. Like Hammer and Green's study (1996), the agency variables provided twice as much impact on economic development policymaking as the structural variables. However, the structural variables still accounted for a third of the total impact on the dependent variable. Findings of this study show that in municipal policymaking, both structure and agency matter, but agency matters more.

City limits vs. urban regimes: How competition *between* cities relates to coalitions *within* cities

Findings of this study provide insight into the debate over whether municipal policymaking is a function of "city limits" or "urban regimes." Peterson (1981) developed the city-limits theory and asserted that competition between cities unites local leaders into promoting their city. The urban regime theory emerged later from Stone (1989), who observed business, citizen, and government coalitions organizing and fighting over urban development issues. Noting patterns of conflict among city leaders deciding development issues, Sanders and Stone (1987; 1987) asserted that economic development is not a unified process, but rather consists of competing coalitions or urban-regimes. Peterson (1987) countered that the city-limits theory did not deny inter-city coalitions. Peterson clarified the city-limits theory by asserting that, despite coalitions and counter-coalitions *within* cities, it is the competition *between* cities that explains economic development.

In this study, Peterson's city-limits theory was represented by four variables: competition-for-investment, US region, state ranking on ED criteria, and partnering. The state ranking on ED criteria was not a significant predictor. However, the consistent,

positive impact of the competition-for-investment variable suggests that inter-city competition does shape municipal policymaking. The impact of another variable, US region, also supports the city-limits theory. Finally, positive impact of the partnering variable suggests that cities increased their overall competitive standing by pooling resources and working with other local governments. Taken together, the findings on competition-for-investment, US region, and partnering provide strong support for the city-limits theory.

Stone's urban regime theory was represented with three variables: political support, business activism, and citizen activism. Political support and business activism were non-significant in all multivariate models. Citizen activism was significant when using a two-tailed hypothesis test. While the non-significant results for political support and business activism do not support the urban-regimes perspective, the findings for citizen activism provide limited support for the idea that coalitions within cities affect municipal policy outcomes.

Overall, the findings support both the city-limits and urban regimes theories. However, the findings provide much more support for the city-limits theory. When compared to the coalitions that emerge *within* cities, competition *between* cities better explains the use of performance measurement in local economic development.

#### Competition and cooperation have complementary roles

The findings showed significant impacts for two variables that would seem to have opposite effects: partnering and competition-for-investment. Partnering involved cooperative aspects that on the surface would seem to contrast with the competitive aspects of the competition-for-investment variable. However, cities in this study appear

to have partnered with other local governments in order to enhance their competitive standing. These findings suggest that, for cities pursuing economic development, competition and cooperation go hand in hand.

City administrative capacity: Population size vs. city expenditures

Multicollinearity between population size and city expenditures raises questions about the substantive role of population size in economic development. The ED literature consistently shows that population size predicts municipal policy adoption, but as Wolman and Spitzley (1996) have noted, there is little theoretical rationale for the inclusion of population size as a predictor of economic development policies. Wolman and Spitzley argued that it is not the number of people in a city that determines policy choices. Rather, population size must function as a proxy for a city's administrative capacity, such that as the number of people in a city increases, so does the number of municipal services and capabilities. Wolman and Spitzley asserted that the logical link between population size and economic development is obscure, and that the relationship provides no policy implications. They suggested that more attention should be paid to the underlying construct – a city's administrative capacity.

Results of this study provide a step in that direction. The significant effect of city expenditures, combined with multicollinearity between population size and city expenditures, indicates that measures other than population size can represent a city's administrative capacity. In this study, city expenditures was a better measure (than population size) because it provided a more direct link between spending and policymaking and accounted for spending disparities between cities. While other

measures may prove better at measuring a city's administrative capacity, results of this study cast doubt on the wisdom of using population size as a predictor of ED policies.

### Limitations of the Study

Many items on the ED survey ask about the five-year period from 1994-1999, a period of high economic growth. In fact, the period between the mid-to-late 1990's covers the greatest economic expansion in US history. When the ED survey was administered in 1999, the US economy was at its peak. Although it is not clear how the US economic expansion might have affected survey responses of local governments, it is worth noting that the survey period occurred during a time of unusual economic expansion – a time when the US economy has never been better.

The surveys used in this study have several limitations. In terms of question wording, many ICMA survey items were simplistic because the response options consisted of dichotomous yes/no measures. Other ED researchers (Wolman & Spitzley, 1996) have lamented the shortcomings that occur when survey questions about policies are anchored with yes/no response options. This measurement problem has been noted in other fields as well. For example, the distinction between a yes/no dichotomy and a degree-of-use indicator parallels the adoption/implementation debate in the innovation literature (Mayer & Davidson, 2000; Tornatzky & Klein, 1982; Yin, 1979). Too often, measurement of innovative policies and programs consists of a yes/no adoption indicator rather than a more informative degree-of-use indicator. As with much of the innovation literature, data limitations in this study required a focus on policy adoption when in fact implementation would be preferable. Research in economic development would be

greatly improved if, instead of asking whether or not policies were used (adoption), the survey questions asked about the *degree* to which policies were used (implementation).

A larger concern is that some constructs were not measured at all. The ED survey gathered useful information about the structure, activities, and strategies of local governments, yet the survey omitted attitudinal items. Consequently, I could not test an important agency construct identified through the literature review – organizational attitudes and culture.

Survey response rates were also problematic. While low survey response rates pervade the literature on local economic development, the percent of cities responding to the economic development survey (32%) was very low. When only one-in-three municipalities respond, the generalizability of findings becomes questionable.

However, the major weakness of this study lies in the social desirability of the survey questions. Because performance measurement is a socially desirable activity, survey respondents may have been inclined to indicate that their local governments had adopted PM when in fact they had not. The dichotomous response options contributed to this measurement problem. Together, social desirability plus simplistic response options increased the likelihood of measurement error and an overestimation of actual PM adoption and use. While more probing survey items would reduce such measurement error, a more accurate picture of performance measurement at the city level would require document reviews and interviews. Qualitative research could better address the problem of social desirability and help determine the degree to which cities use performance measurement in their economic development programs.

### Future Research

This study points toward several areas for further research. Methodologically, studies of performance measurement and economic development would benefit from better survey questions and response options as well as higher survey response rates. Qualitative approaches could also help determine the actual use of accountability tools such as performance measurement and benchmarking. However, qualitative research on municipal policymaking should move beyond the studies of larger, wealthier, and more innovative cities to include the more common, smaller and poorer cities.

In terms of theoretical development, the revised model shown in Figure 4 provides a causal diagram that future research could examine with path analytic methods such as structural equation modeling. Such an approach could estimate measurement error and better examine the indirect effects of staff size, budget, and ED activities on performance measurement.

Future research could also provide more explicit comparisons of the structural determinism of the “city limits” theory versus the agency and interest groups of the “urban regime” theory. The structural perspective has too often failed to adequately measure the participation and activism of interest groups within cities. Conversely, agency and regime theorists have too narrowly focused on variation within cities while ignoring the competitive forces between cities. Research on municipal policymaking would benefit from multi-city studies that include variables from both perspectives.

More broadly, there is a need to incorporate the structural perspective into public policy research. Too often, researchers study local government innovations outside the context of larger social forces. While policy studies increasingly consider the impact of

local citizens, businesses, and community organizations, the research gives less attention to the broader demographic and socioeconomic differences between communities.

Neglect of these structural factors provides a skewed picture of organizational innovation in local government. Studies that neglect structural factors derive conclusions that place too much emphasis on organizational strategies such as managerial approaches and too little emphasis on constraints of the existing social context. Although findings of this study emphasize organizational explanations, this study also shows that the socioeconomic differences and competitive forces between communities exert real pressures on local officials in ways that shape municipal policymaking. Both structure and agency clearly affect municipal policymaking, and future public policy research should incorporate both perspectives.

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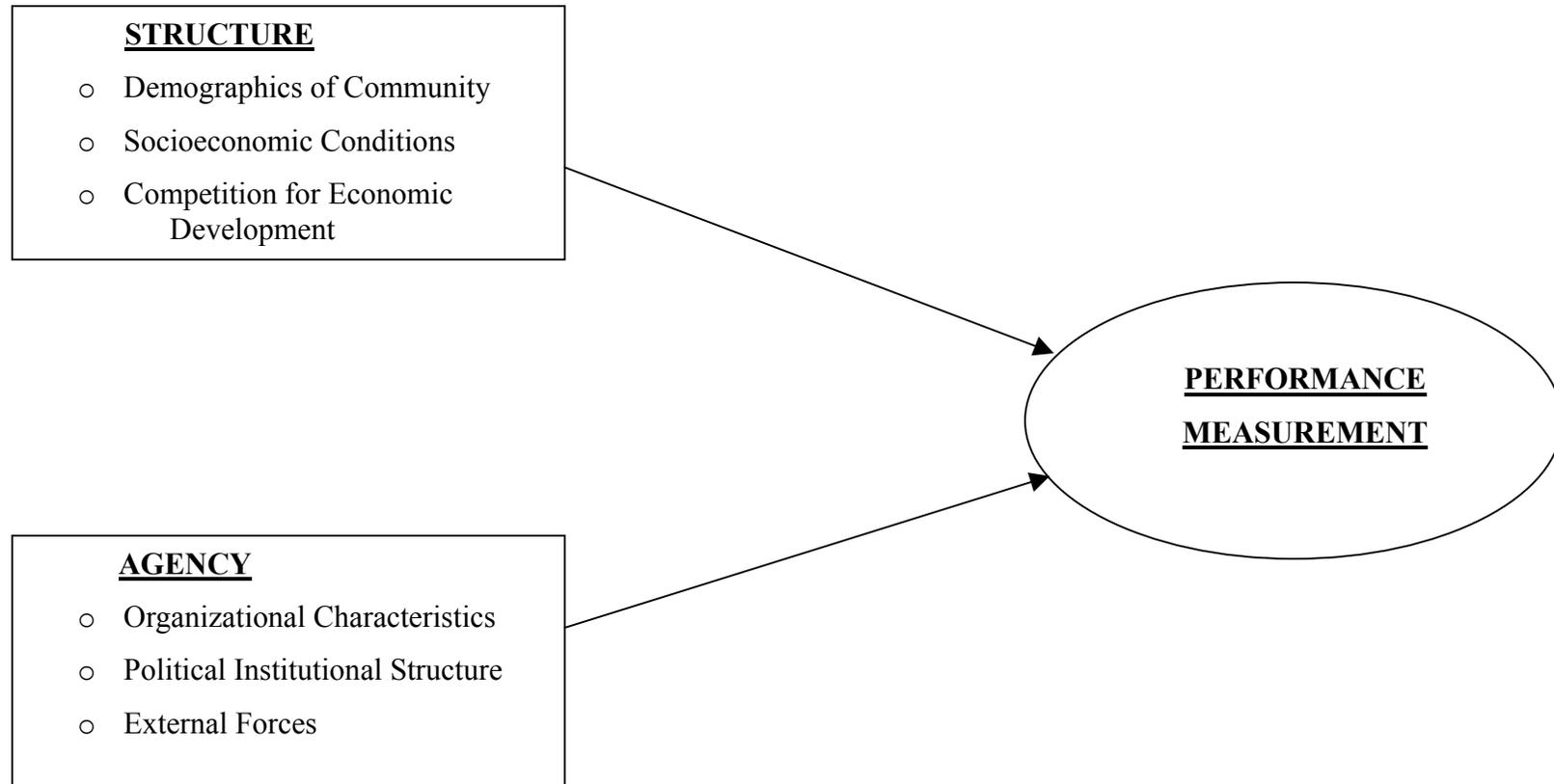
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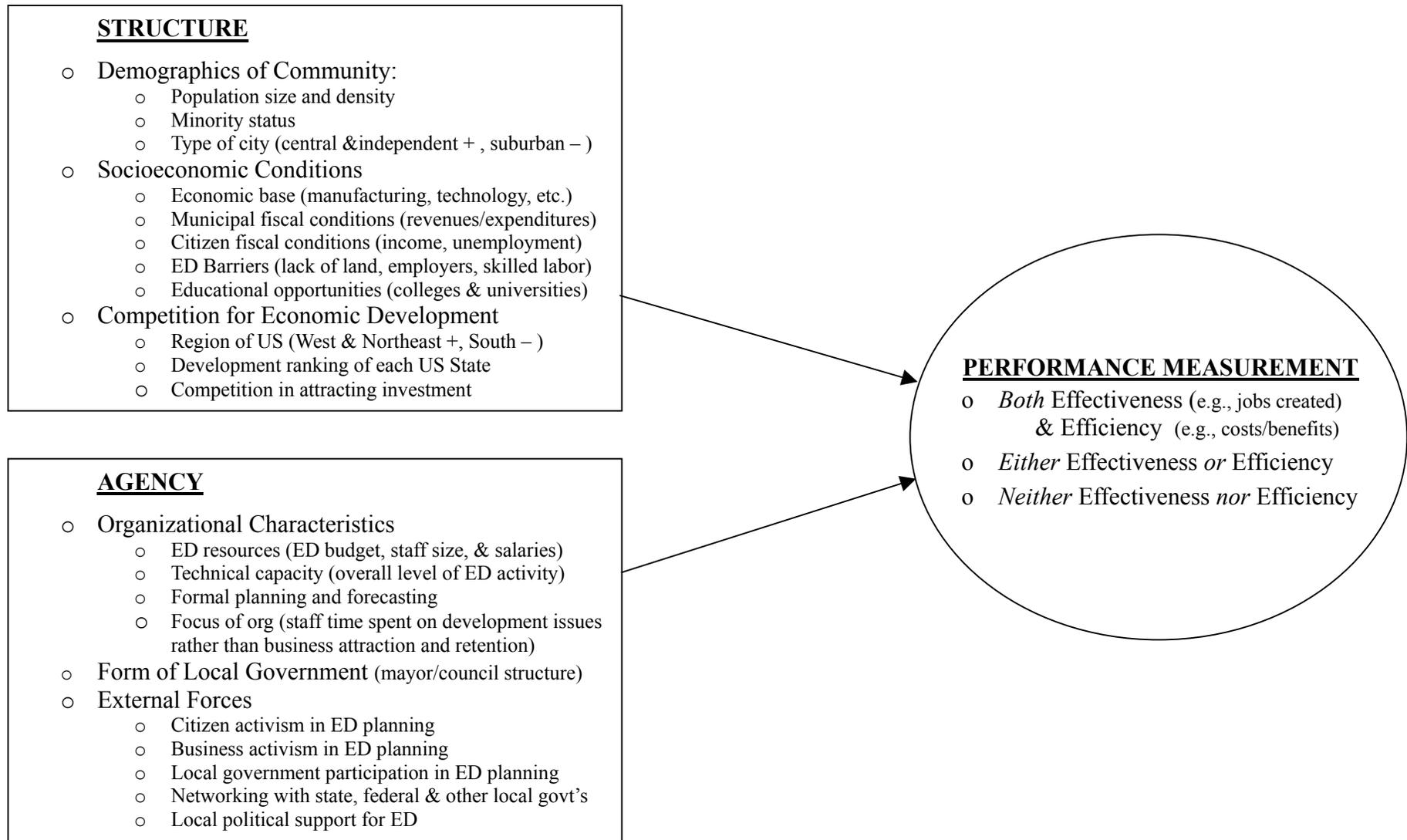
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**Figure 1**  
**Performance Measurement in Local Economic Development:**  
**An Overview Model of Structural and Agency Effects**

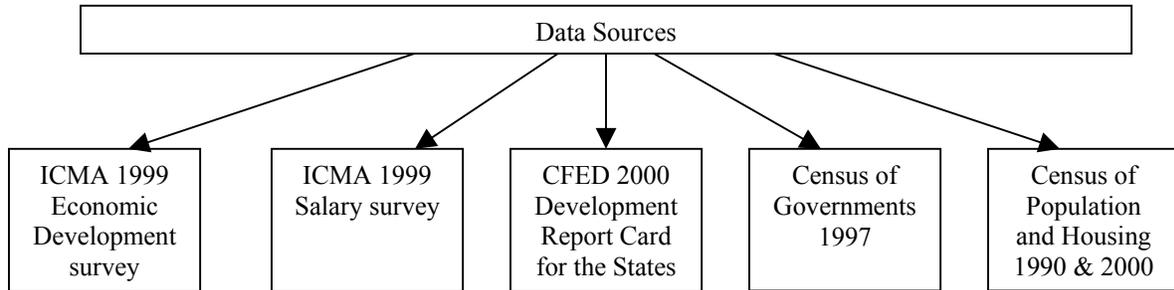


**Figure 2**

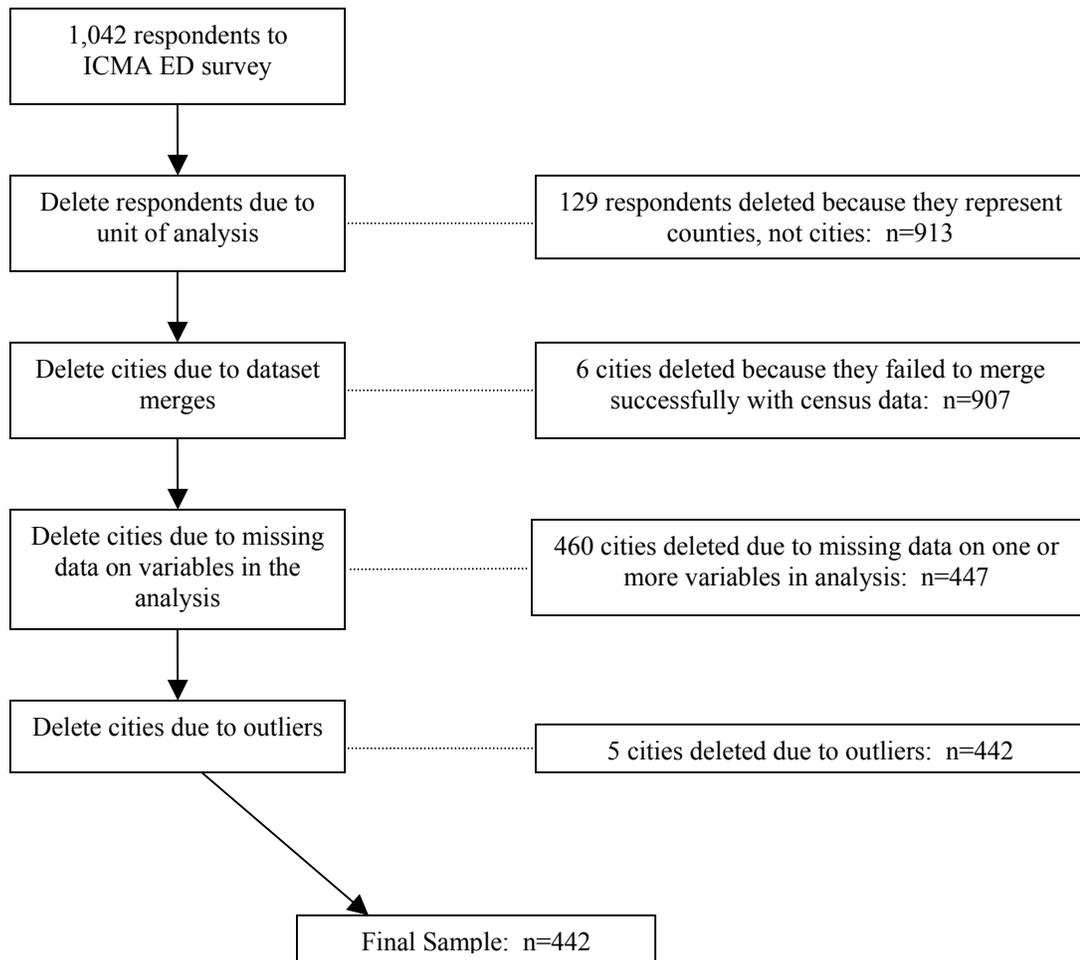
**Performance Measurement in Local Economic Development:**  
**A Detailed Model of Structural and Agency Effects**



**Figure 3**  
**Final Sample**



Data deletion decisions and rationale

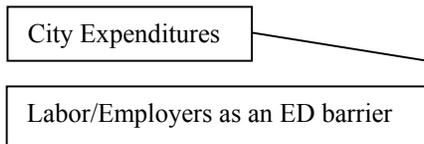


**Figure 4**

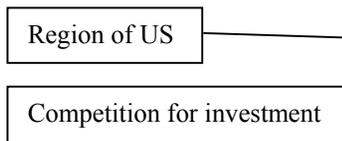
**Performance Measurement in Local Economic Development:**  
**A Revised Model of Structural and Agency Effects**

**STRUCTURE**

- Socioeconomic Conditions

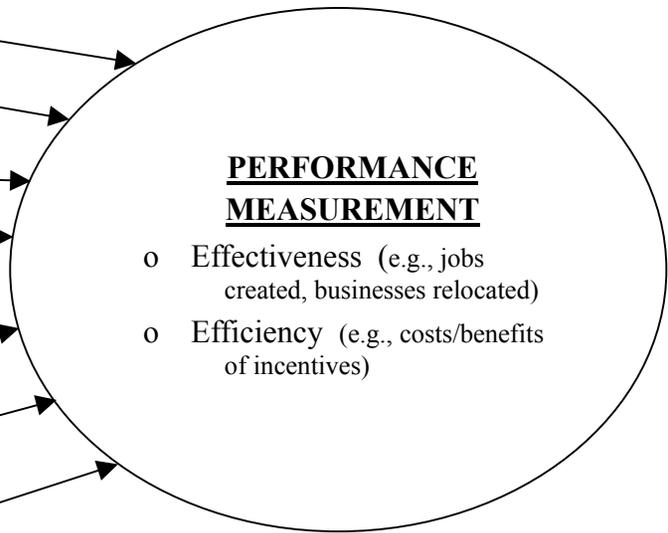
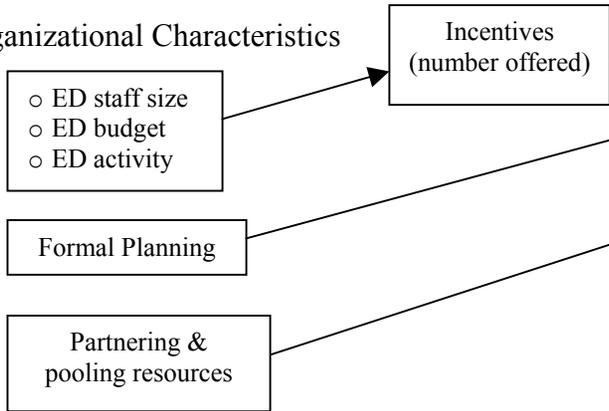


- Competition for Economic Development



**AGENCY**

- Organizational Characteristics



**Table 1: Summary of Empirical Findings from Inferential Studies – Performance Measurement and Economic Development in Local Governments\***

<b><u>Factors Examined</u></b>	<b><u>Performance Measurement</u></b>		<b><u>Economic Development</u></b>	
	All Municipal Functions	Only Economic Development	Progressive ED Policies	Traditional ED Policies
<i>No. of Inferential Studies:</i>	5	3	7	9
<b><u>Structure</u></b>				
<i>Demographics of Community</i>				
Size of Population	2 +	3 +	3 +, 2 ns	7/8 +
Growth of Population	.	.	2–, 1+, 1mix	1–
Minority Population (Minority Political Repres.)	.	.	1ns	2 ns
Type of City = Suburban	.	.	1 +, 1 mix	3 +
	.	.	.	2 –
<i>Socioeconomic Conditions</i>				
Fiscal Health (Income)	.	.	2 +, 1 ns	3 –, 2 +
(Poverty)	.	.	2 +, 2 ns	6 +
(Unemployment)	.	.	2 +, 1 ns	1+, 1–
(Tax Rate)	.	.	.	2 +, 1 ns
Education Level	.	.	1 mix	1 +
Occupation (% Professional)	.	.	1 +	1 ns
(% Manufacturing)	.	.	1 ns	2ns, 1+, 1mix
<i>Regional Competition</i>				
Competition for ED – Regional:	.	.	2 ns	2 +
Region of Country	1 ns	1 ns	2+	.
<b><u>Agency</u></b>				
<i>Organizational Resources</i>				
Staff size	3 +	3 +	1 +	.
Professionalism/Education of Staff	1 +, 2 ns	.	.	.
Resources / Budget / Expenditures	2 +, 2 ns	2 +	1 ns	.
Technical Capacity	1 mix, 1 ns	.	1 mix, 1 ns	2+
<i>Organizational Structure</i>				
City has a centralized ED agency	1 ns	.	.	3 +, 1 ns
Govt is most active ED proponent	.	.	.	2 +, 1ns, 2 mix
City has an ED Plan	.	.	.	2 +
<i>Organizational Climate</i>				
Managerial support / involvement	5 +	.	.	.
Staff support for PM	4 +	.	.	.
PM linked to mission and goals	3 +	1+	.	.
<i>Political Institutional Structure</i>				
Form-of-Govt = Mayor-Council	2 ns	2 ns	.	5ns, 1+, 1–
= Council-Mngr	2 ns	2 ns	.	5ns, 1–
Mayoral Power	.	.	1 mix	1+
Partisanship (% Democrat)	.	.	1 +, 1 ns	1+
<i>External Forces</i>				
Elected / Top officials support PM	4 +	.	.	.
Local laws / regulations req. PM	3 +, 1 ns	.	.	.
Business ED Activism/Climate	.	1 ns	1+, 1mix, 2ns	1+, 1–, 1ns
Community ED Activism/Org's	4 +	1 –	6+, 1mix, 2ns	2–

\* Note: All reviewed studies were inferential and specified causal relations between variables. Only direct effects are shown. Factors shown were considered as predictors in at least two of the studies. Coding: ns=not significant; mix=both positive and negative effects in two or more models of the same study.

**Table 2**  
**Categorical Variables: Frequencies and Percentages**

Frame	Component	Variable	Value	Frequency	Percent		
OUTCOME	Dependent Variable	Performance Measurement	Neither Effectiveness Nor Efficiency	109	25.1		
			Either Effectiveness Or Efficiency	192	44.2		
			Both Effectiveness And Efficiency	133	30.6		
STRUCTURE	Demographics	Metropolitan Status	Central City	103	23.7		
			Suburban City	246	56.7		
			Independent City	85	19.6		
	Socio-Economics	Industrial Economic Base		Agricultural, Retail, Warehousing, etc.	327	75.3	
				Manufacturing & Technology/Telecommunications	107	24.7	
		Land Availability			Land Availability not mentioned as an ED Barrier	176	40.6
					Land Availability an ED Barrier	71	16.4
					Land Availability the #2 ED Barrier	53	12.2
					Land Availability the #1 ED Barrier	134	30.9
	Skilled Labor & Major Employers			Labor/Employers not mentioned as an ED Barrier	160	36.9	
				Lack of Labor/Employers an ED Barrier	72	16.6	
				Lack of Labor/Employers the #2 ED Barrier	89	20.5	
	Educational Opportunities			Lack of Labor/Employers the #1 ED Barrier	113	26.0	
				No College/University in City	246	56.7	
				College or University in City	188	43.3	
Competition for ED	Region of US		North-East	63	14.5		
			North-Central	131	30.2		
			South	123	28.3		
			West	117	27.0		

**Table 2, continued**  
**Categorical Variables: Frequencies and Percentages**

Frame	Component	Variable	Value	Frequency	Percent	
AGENCY	Organizational Factors	Centralization	No Distinct ED Agency or Director	135	31.1	
			City has an ED Agency &/or Director	299	68.9	
		Funding Problems & Land Costs	Funding & Land Costs not an ED Barrier	142	32.7	
			Funding or Land Costs is an ED Barrier	83	19.1	
			Funding & Land Costs is #2 ED Barrier	107	24.7	
			Funding & Land Costs is #1 ED Barrier	102	23.5	
		Written Plans for ED	No Written Plans for ED	159	36.6	
			City has Written Plans for ED	275	63.4	
		Form of Government	Form of Local Government	Council-Manager / Other (Commission, Town Meeting)	358	82.5
				Mayor-Council	76	17.5
	External Forces	Local Government Participation in ED	City/County Govts did not participate in ED	5	1.2	
			City/County Govts participated in ED	429	98.8	
		Extra-Local Govt Participation in ED	State & Federal Govts did not participate in ED	157	36.2	
			Low State & Federal Govt participation in ED	82	18.9	
			Medium State & Federal Govt participation in ED	58	13.4	
			High State & Federal Govt participation in ED	66	15.2	
		Highest State & Federal Govt participation in ED		71	16.4	
				71	16.4	
		Partnering	Partnering	Neither partnering nor regional approaches	206	47.5
				Either partnering or regional approaches	123	28.3
Both partnering and regional approaches	105			24.2		
Political Support	Political Support	Political Support not an ED Barrier	384	88.5		
		Lack of Political Support an ED Barrier	50	11.5		

**Table 2, continued**  
**Categorical Variables: Frequencies and Percentages**

Frame	Component	Variable	Value	Frequency	Percent
AGENCY	External Forces	Business Activism	Business not active in ED	40	9.2
			Low Business Activism in ED	72	16.6
			Medium Business Activism in ED	90	20.7
			High Business Activism in ED	105	24.2
			Highest Business Activism in ED	127	29.3
		Citizen Activism	Citizens not active in ED	120	27.6
			Low Citizen Activism in ED	111	25.6
			Medium Citizen Activism in ED	128	29.5
			High Citizen Activism in ED	75	17.3



**Table 3, continued**  
**Numeric Variables: Descriptive Statistics**

Frame	Component	Independent Variable	Mean	Median	Std Dev	Min	Max	Kurt	Skew
AGENCY	Organizational Factors	ED Staff Size	2.03	1.00	3.91	0.0	44.0	48.55	6.16
		ED Staff Size (log)	0.81	0.69	0.68	0.0	3.8	1.86	0.96
		Budget for Econ Devt	\$928,171.93	\$169,450.00	\$3,289,842.71	\$0.0	\$35,151,012.0	59.68	7.18
		Budget for Econ Devt (log)	11.58	12.04	2.99	0.0	17.4	7.47	-2.36
		Salary of ED Director ^	\$69,573.51	\$67,236.00	\$18,824.55	\$29,000.0	\$131,021.0	-0.12	0.52
		Local Importance of ED Director ^	0.71	0.71	0.11	0.4	1.0	-0.08	0.01
		Econ Devt Incentives	5.20	5.00	4.06	0.0	18.0	-0.61	0.42
		Technology Applications	4.39	4.00	2.13	0.0	10.0	-0.48	-0.11
		Community-Based Econ Devt	1.99	2.00	1.54	0.0	5.0	-0.86	0.37
		Econ Devt Activity	7.84	8.00	4.61	0.0	20.0	-0.49	0.26
		Priorities: % Staff Time on Devt	0.44	0.40	0.25	0.0	1.0	-0.59	0.54

^ Descriptive statistics on the salary variables are based on a smaller sample of 245 cities. See methods for rationale.

**Table 4: Demographic Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
City Type: Central	1.56 ***	4.76	1.40 ***	4.05	0.16	1.18
Independent	0.43 *	1.54	0.37	1.44	0.07	1.07
Race: Percent Minority	0.01 **	1.01	-0.00	1.00	0.02 ***	1.02
Intercepts	-0.51 **		0.34 **		-0.86 ***	
Sample size		442				
Model chi-square		30.25 ***				
Degrees of freedom		6				
Pseudo-R <sup>2</sup>		.06				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 5: Socioeconomic Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
City Expenditures (log)	0.64 ***	1.89	0.38 ***	1.47	0.25 **	1.29
Personal Income (log)	0.11	1.11	0.34	1.40	-0.23	0.79
Unemployment Rate (log)	0.40 *	1.49	0.21	1.24	0.19	1.21
Cost of Housing (log)	-0.62	0.54	-0.40	0.67	-0.23	0.80
Transportation Infrastructure	0.37 ***	1.45	0.45 ***	1.57	-0.08	0.93
Industry based in Manuf/Tech	-0.09	0.92	0.59 **	1.81	-0.68	0.51
Labor/Employers an ED Barrier	0.65 *	1.92	-0.12	0.89	0.77 **	2.16
#2 ED Barrier	0.98 ***	2.67	0.07	1.07	0.91 ***	2.48
#1 ED Barrier	0.97 ***	2.63	0.23	1.26	0.74 ***	2.09
Intercepts	-6.98 *		-6.77 *		-0.21	
Sample size		442				
Model chi-square		93.38 ***				
Degrees of freedom		18				
Pseudo-R <sup>2</sup>		.17				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 6: Competition-for-Economic-Development Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Competition for Investment	0.71 ***	2.02	0.46 ***	1.58	0.25 ***	1.28
State Rank on Econ Devt Criteria	0.01	1.01	0.02	1.02	-0.01	0.99
Region: North-Central	0.28	1.32	0.70 **	2.02	-0.42	0.66
North-East	-1.78	0.17	-0.77	0.46	-1.01	0.36
West	0.08	1.08	0.09	1.09	-0.01	0.99
Intercepts	-1.75 ***		-1.15 **		-0.60	
Sample size		442				
Model chi-square		58.70 ***				
Degrees of freedom		10				
Pseudo-R <sup>2</sup>		.12				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 7: Organizational Resources Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Econ Devt Staff Size (log)	1.16 ***	3.19	0.68 ***	1.98	0.48 ***	1.61
Econ Devt Budget (log)	0.25 ***	1.28	0.16 ***	1.17	0.09	1.09
ED Budget/City Expenditures (log)	-0.16	0.85	-0.17	0.84	0.01	1.01
Intercepts	-3.46 ***		-1.54 ***		-1.93 **	
Sample size		442				
Model chi-square		70.92 ***				
Degrees of freedom		6				
Pseudo-R <sup>2</sup>		.14				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 8: Organizational Capacity Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Econ Devt Incentives	1.03 ***	2.80	0.96 ***	2.62	0.07 **	1.07
Technology Applications	-0.09	0.92	-0.12	0.88	0.04	1.04
Community-Based Econ Devt	0.04	1.04	-0.01	0.99	0.05	1.06
Econ Devt Activity	0.16 ***	1.17	0.10 **	1.11	0.05 *	1.05
Intercepts	-3.58 ***		-1.98 ***		-1.61 ***	
Sample size		442				
Model chi-square		303.75 ***				
Degrees of freedom		8				
Pseudo-R <sup>2</sup>		.41				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 9: Organizational Priorities Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Formal Planning	1.51 ***	4.51	0.43 **	1.53	1.08 ***	2.95
Centralized Econ Devt Agency	0.67 **	1.95	0.43 **	1.54	0.24	1.27
Priorities: % Staff Time on Devt	-1.34	0.26	-0.79	0.45	-0.55	0.58
Intercepts	-0.66 **		0.44 *		-1.10 ***	
Sample size		442				
Model chi-square		46.05 ***				
Degrees of freedom		6				
Pseudo-R <sup>2</sup>		.09				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 10: External-Forces Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Partnering: Medium	1.01 ***	2.75	0.54 **	1.71	0.47 **	1.60
High	1.56 ***	4.77	0.70 **	2.02	0.86 ***	2.36
State/Fed Govt partic: Low	0.62 *	1.87	0.80 **	2.22	-0.17	0.84
Med.	0.55	1.73	0.32	1.38	0.22	1.25
High	0.35	1.42	0.32	1.37	0.03	1.03
Highest	1.09 ***	2.98	0.69 *	1.98	0.41	1.50
Business Activism in ED: Low	0.20	1.22	-0.04	0.96	0.23	1.26
Med.	-0.37	0.69	-0.37	0.69	0.00	1.00
High	0.79 *	2.21	0.06	1.06	0.73 *	2.08
Highest	0.11	1.12	-0.19	0.82	0.31	1.36
Citizen Activism in ED: Low	0.21	1.24	-0.12	0.88	0.34	1.40
Med.	0.05	1.05	-0.23	0.80	0.27	1.31
High	-0.61	0.54	-1.12	0.33	0.51 *	1.66
Intercepts	-0.99 **		0.46		-1.44 ***	
Sample size		442				
Model chi-square		68.55 ***				
Degrees of freedom		26				
Pseudo-R <sup>2</sup>		.13				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 11: Structural Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
City Type: Central	0.42	1.53	0.50	1.64	-0.07	0.93
Independent	-0.55	0.58	-0.44	0.65	-0.11	0.89
Race: % Minority	-0.00	1.00	-0.01	0.99	0.01 *	1.01
City Expenditures (log)	0.44 ***	1.55	0.30 **	1.35	0.14	1.15
Transportation Infrastructure	0.39 ***	1.48	0.45 ***	1.57	-0.06	0.94
Industry based in Manuf/Tech	-0.11	0.90	0.53 *	1.70	-0.64	0.53
Labor/Employers an ED Barrier	0.57 *	1.76	-0.18	0.83	0.75 **	2.11
#2 ED Barrier	1.08 ***	2.94	0.11	1.12	0.96 ***	2.62
#1 ED Barrier	1.23 ***	3.42	0.43	1.54	0.80 ***	2.23
Competition for Investment	0.52 ***	1.68	0.30 **	1.35	0.22 **	1.25
Region: North-Central	0.59 *	1.81	0.89 **	2.43	-0.29	0.75
North-East	-1.25	0.29	-0.28	0.76	-0.97	0.38
West	0.50 *	1.66	0.62 **	1.87	-0.12	0.89
Intercepts	-10.81 ***		-7.22 ***		-3.59 *	
Sample size		442				
Model chi-square		126.14 ***				
Degrees of freedom		26				
Pseudo-R <sup>2</sup>		.22				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 12: Agency Explanations**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Econ Devt Staff Size (log)	0.49	1.64	0.23	1.26	0.27	1.30
Econ Devt Budget (log)	0.11 *	1.12	0.05	1.06	0.06	1.06
Econ Devt Incentives	1.07 ***	2.92	1.03 ***	2.80	0.04	1.04
Econ Devt Activity	0.08 *	1.09	0.08 *	1.08	0.00	1.00
Formal Planning	0.58	1.79	-0.35	0.70	0.93 ***	2.53
Centralized Econ Devt Agency	0.74 *	2.09	0.67 *	1.94	0.07	1.07
Form of Govt: Mayor/Council	0.66	1.93	0.98 **	2.66	-0.32	0.73
Partnering: Medium	0.18	1.19	-0.20	0.82	0.38	1.46
High	0.57	1.76	-0.08	0.92	0.65 **	1.92
State/Fed Govt partic: Low	-0.82	0.44	-0.55	0.58	-0.27	0.77
Med.	-1.03	0.36	-1.05	0.35	0.02	1.02
High	-1.14	0.32	-1.01	0.36	-0.13	0.87
Highest	-1.49	0.23	-1.80	0.17	0.30	1.35
Intercepts	-5.78 ***		-3.16 ***		-2.62 ***	
Sample size		442				
Model chi-square		341.56 ***				
Degrees of freedom		26				
Pseudo-R <sup>2</sup>		.44				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 13: Structural and Agency Explanations -- Full Model**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
<i>Structural Variables</i>						
City Expenditures (log)	0.45 **	1.57	0.37 **	1.45	0.08	1.08
Transportation Infrastructure	-0.04	0.96	0.09	1.09	-0.13	0.88
Labor/Employers an ED Barrier	0.08	1.08	-0.77	0.46	0.85 **	2.34
#2 ED Barrier	1.31 ***	3.70	0.24	1.27	1.07 ***	2.92
#1 ED Barrier	0.75 *	2.13	0.01	1.01	0.74 **	2.10
Competition for Investment	0.35 **	1.42	0.16	1.18	0.19 **	1.21
Region: North-Central	0.86 *	2.37	1.37 ***	3.92	-0.50	0.60
North-East	-0.47	0.63	0.60	1.82	-1.06	0.35
West	0.91 *	2.48	1.12 **	3.07	-0.22	0.81
<i>Agency Variables</i>						
Econ Devt Incentives	1.03 ***	2.80	0.97 ***	2.64	0.06 *	1.06
Formal Planning	0.84 **	2.31	-0.17	0.84	1.01 ***	2.75
Form of Govt: Mayor/Council	0.39	1.48	0.48	1.61	-0.09	0.92
Partnering: Medium	0.37	1.45	-0.06	0.94	0.44 *	1.55
High	0.76 *	2.13	0.10	1.10	0.66 **	1.94
Intercepts	-13.24 ***		-9.77 ***		-3.47 **	
Sample size		442				
Model chi-square		352.00 ***				
Degrees of freedom		28				
Pseudo-R <sup>2</sup>		.44				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 14: Structural and Agency Explanations -- Trimmed Final Model**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
<i>Structural Variables</i>						
City Expenditures (log)	0.43 **	1.54	0.37 **	1.45	0.06	1.06
Labor/Employers an ED Barrier	0.03	1.03	-0.84	0.43	0.86 **	2.37
#2 ED Barrier	1.30 ***	3.68	0.28	1.32	1.02 ***	2.78
#1 ED Barrier	0.79 *	2.20	0.09	1.09	0.70 **	2.02
Competition for Investment	0.35 **	1.42	0.18	1.20	0.17 *	1.18
Region: North-Central	0.95 **	2.58	1.45 ***	4.27	-0.50	0.61
North-East	-0.45	0.64	0.57	1.76	-1.02	0.36
West	0.89 *	2.44	1.07 **	2.90	-0.17	0.84
<i>Agency Variables</i>						
Econ Devt Incentives	1.02 ***	2.78	0.97 ***	2.65	0.05	1.05
Formal Planning	0.82 **	2.28	-0.20	0.82	1.02 ***	2.78
Partnering: Medium	0.35	1.42	-0.07	0.94	0.42 *	1.52
High	0.79 *	2.20	0.13	1.14	0.66 **	1.94
Intercepts	-12.96 ***		-9.43 ***		-3.53 **	
Sample size		442				
Model chi-square		349.06 ***				
Degrees of freedom		24				
Pseudo-R <sup>2</sup>		.44				
<sup>^</sup> Both (n=134), either (n=197), or neither (n=111). All tests are one-tailed: *p<.10, **p<.05, ***p<.01						

**Table 15: Structural Explanations -- Trimmed Structural Variables  
Multinomial Logit Model Estimating Local Economic Development Performance Measures:  
Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
City Expenditures (log)	0.61 ***	1.83	0.49 ***	1.63	0.12	1.13
Labor/Employers an ED Barrier	0.51	1.66	-0.32	0.73	0.83 **	2.28
#2 ED Barrier	1.15 ***	3.17	0.21	1.23	0.94 ***	2.57
#1 ED Barrier	1.33 ***	3.76	0.57 **	1.77	0.75 ***	2.12
Competition for Investment	0.61 ***	1.83	0.41 ***	1.50	0.20 **	1.22
Region: North-Central	0.57 *	1.77	1.09 ***	2.97	-0.52	0.60
North-East	-1.44	0.24	-0.33	0.72	-1.11	0.33
West	0.39	1.47	0.43	1.54	-0.04	0.96
Intercepts	-12.55 ***		-9.26 ***		-3.29 **	
Sample size		442				
Model chi-square		94.73 ***				
Degrees of freedom		16				
Pseudo-R <sup>2</sup>		.18				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 16: Agency Explanations -- Trimmed Agency Variables**  
**Multinomial Logit Model Estimating Local Economic Development Performance Measures:**  
**Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Econ Devt Incentives	1.05 ***	2.85	0.97 ***	2.65	0.07 **	1.08
Formal Planning	0.86 **	2.37	-0.12	0.89	0.98 ***	2.68
Partnering: Medium	0.49	1.63	0.06	1.07	0.42 *	1.52
High	0.73 *	2.07	0.04	1.04	0.69 ***	1.99
Intercepts	-3.80 ***		-1.89 ***		-1.92 ***	
Sample size		442				
Model chi-square		314.50 ***				
Degrees of freedom		8				
Pseudo-R <sup>2</sup>		.42				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 17: Post Hoc Analysis:  
Organizational Explanations (excluding incentives)  
Multinomial Logit Model Estimating Local Economic Development Performance Measures:  
Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Econ Devt Staff Size (log)	0.61 **	1.84	0.29	1.34	0.32 *	1.37
Econ Devt Budget (log)	0.15 **	1.16	0.13 ***	1.14	0.02	1.02
ED Budget/City Expenditures (log)	0.06	1.06	-0.11	0.90	0.17	1.18
Technology Applications	-0.00	1.00	-0.03	0.97	0.03	1.03
Community-Based Econ Devt	0.36 ***	1.44	0.29 ***	1.33	0.07	1.08
Econ Devt Activity	0.19 ***	1.21	0.16 ***	1.18	0.03	1.03
Formal Planning	0.56 *	1.75	-0.33	0.72	0.88 ***	2.42
Centralized Econ Devt Agency	0.53 *	1.69	0.37 *	1.45	0.16	1.17
Priorities: % Staff Time on Devt	0.00	1.00	0.38	1.46	-0.38	0.69
Intercepts	-4.75 ***		-2.56 ***		-2.19 **	
Sample size		442				
Model chi-square		138.53 ***				
Degrees of freedom		18				
Pseudo-R <sup>2</sup>		.24				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 18: Post Hoc Analysis:  
Agency Explanations (excluding incentives)  
Multinomial Logit Model Estimating Local Economic Development Performance Measures:  
Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Econ Devt Staff Size (log)	0.61 **	1.84	0.35 *	1.42	0.26	1.29
Econ Devt Budget (log)	0.18 ***	1.20	0.10 **	1.11	0.08	1.08
Econ Devt Activity	0.20 ***	1.22	0.19 ***	1.21	0.01	1.01
Formal Planning	0.56 *	1.75	-0.34	0.71	0.90 ***	2.47
Form of Govt: Mayor/Council	-0.01	0.99	0.38	1.46	-0.39	0.67
Partnering: Medium	0.51 *	1.67	0.22	1.24	0.30	1.35
High	0.65 *	1.91	0.02	1.02	0.63 **	1.87
State/Fed Govt partic: Low	0.36	1.43	0.52 *	1.69	-0.17	0.85
Med.	0.20	1.22	-0.01	0.99	0.20	1.23
High	-0.00	1.00	0.03	1.03	-0.03	0.97
Highest	0.64 *	1.89	0.22	1.25	0.41	1.51
Intercepts	-4.70 ***		-2.05 ***		-2.65 ***	
Sample size		442				
Model chi-square		137.66 ***				
Degrees of freedom		22				
Pseudo-R <sup>2</sup>		.24				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 19: Post Hoc Analysis:  
Structural and Agency Explanations (excluding incentives) -- Full Model  
Multinomial Logit Model Estimating Local Economic Development Performance Measures:  
Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
<i>Structural Variables</i>						
City Expenditures (log)	0.08	1.08	0.17	1.19	-0.10	0.91
Transportation Infrastructure	0.32 ***	1.38	0.40 ***	1.50	-0.08	0.92
Labor/Employers an ED Barrier	0.57	1.77	-0.26	0.77	0.83 **	2.29
#2 ED Barrier	1.04 **	2.83	0.01	1.01	1.03 ***	2.81
#1 ED Barrier	1.08 ***	2.95	0.28	1.32	0.81 ***	2.24
Competition for Investment	0.34 **	1.40	0.16	1.17	0.17 *	1.19
Region: North-Central	0.59 *	1.81	1.18 ***	3.27	-0.59	0.55
North-East	-0.89	0.41	0.11	1.12	-1.00	0.37
West	0.10	1.11	0.48	1.62	-0.38	0.68
<i>Agency Variables</i>						
Econ Devt Staff Size (log)	0.81 ***	2.26	0.47 *	1.60	0.34 *	1.41
Econ Devt Budget (log)	0.17 **	1.19	0.08 **	1.09	0.09	1.09
Econ Devt Activity	0.15 ***	1.17	0.14 ***	1.15	0.01	1.01
Formal Planning	0.74 **	2.09	-0.22	0.80	0.96 ***	2.61
Partnering: Medium	0.42	1.52	0.06	1.06	0.36	1.43
High	0.80 **	2.23	0.13	1.13	0.68 **	1.96
Intercepts	-8.27 ***		-6.74 ***		-1.53	
Sample size		442				
Model chi-square		192.44 ***				
Degrees of freedom		30				
Pseudo-R <sup>2</sup>		.30				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 20: Post Hoc Analysis:  
Structural and Agency Explanations (excluding incentives) -- Trimmed Final Model  
Multinomial Logit Model Estimating Local Economic Development Performance Measures:  
Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
<i>Structural Variables</i>						
Transportation Infrastructure	0.33 ***	1.39	0.42 ***	1.52	-0.09	0.91
Labor/Employers an ED Barrier	0.59	1.80	-0.25	0.78	0.84 **	2.32
#2 ED Barrier	1.02 **	2.77	-0.04	0.96	1.06 ***	2.89
#1 ED Barrier	1.06 ***	2.89	0.23	1.26	0.83 ***	2.30
Competition for Investment	0.34 **	1.40	0.16	1.17	0.18 *	1.19
Region: North-Central	0.58 *	1.79	1.15 ***	3.15	-0.56	0.57
North-East	-0.90	0.41	0.10	1.10	-1.00	0.37
West	0.09	1.10	0.45	1.57	-0.36	0.70
<i>Agency Variables</i>						
Econ Devt Staff Size (log)	0.83 ***	2.30	0.57 **	1.77	0.26	1.30
Econ Devt Budget (log)	0.17 **	1.18	0.08 **	1.09	0.08	1.09
Econ Devt Activity	0.15 ***	1.17	0.15 ***	1.16	0.01	1.01
Formal Planning	0.75 **	2.11	-0.22	0.80	0.97 ***	2.64
Partnering: Medium	0.41	1.50	0.04	1.04	0.37	1.45
High	0.81 **	2.24	0.14	1.15	0.67 **	1.96
Intercepts	-6.98 ***		-3.88 ***		-3.09 ***	
Sample size		442				
Model chi-square		191.09 ***				
Degrees of freedom		28				
Pseudo-R <sup>2</sup>		.30				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are one-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 21: Post Hoc Analysis -- Exploring Unexpected Findings:  
Agency Explanations**

**Multinomial Logit Model Estimating Local Economic Development Performance Measures:  
Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
Econ Devt Staff Size (log)	0.59	1.80	0.34	1.41	0.25	1.28
Econ Devt Budget (log)	0.12	1.13	0.06	1.06	0.06	1.07
Econ Devt Incentives	1.07 ***	2.93	1.03 ***	2.81	0.04	1.04
Econ Devt Activity	0.08	1.08	0.08	1.08	-0.00	1.00
Formal Planning	0.71	2.03	-0.19	0.82	0.90 ***	2.47
Centralized Econ Devt Agency	0.76	2.13	0.69	1.99	0.07	1.07
Priorities: % Staff Time on Devt	0.27	1.31	0.65	1.91	-0.38	0.69
Form of Govt: Mayor/Council	0.72	2.05	1.06 **	2.89	-0.34	0.71
Partnering: Medium	0.05	1.05	-0.35	0.70	0.40	1.50
High	0.58	1.79	-0.07	0.94	0.65 **	1.91
State/Fed Govt partic: Low	-0.82	0.44	-0.53	0.59	-0.30	0.74
Med.	-1.09	0.34	-1.09	0.34	0.00	1.00
High	-1.16	0.31	-1.00	0.37	-0.16	0.85
Highest	-1.54 **	0.21	-1.84 **	0.16	0.30	1.35
Citizen Activism in ED: Low	0.58	1.78	0.29	1.33	0.29	1.34
Citizen Activism in ED: Med.	0.11	1.12	-0.14	0.87	0.26	1.29
Citizen Activism in ED: High	-0.72	0.49	-1.07 *	0.34	0.35	1.42
Intercepts	-6.09 ***		-3.46 ***		-2.63 ***	
Sample size		442				
Model chi-square		349.38 ***				
Degrees of freedom		34				
Pseudo-R <sup>2</sup>		.44				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are two-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 22: Post Hoc Analysis -- Exploring Unexpected Findings:  
Structural and Agency Explanations -- Full Model  
Multinomial Logit Model Estimating Local Economic Development Performance Measures:  
Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
<i>Structural Variables</i>						
City Expenditures (log)	0.45 **	1.57	0.38 *	1.47	0.07	1.07
Transportation Infrastructure	-0.00	1.00	0.15	1.17	-0.15	0.86
Labor/Employers an ED Barrier	0.20	1.22	-0.73	0.48	0.93 **	2.53
#2 ED Barrier	1.52 ***	4.57	0.36	1.43	1.16 ***	3.18
#1 ED Barrier	0.88	2.41	0.12	1.13	0.76 **	2.14
Competition for Investment	0.34 *	1.41	0.15	1.16	0.19 *	1.21
Region: North-Central	0.78	2.19	1.30 **	3.68	-0.52	0.60
North-East	-0.20	0.82	0.98	2.65	-1.18 **	0.31
West	0.82	2.28	1.04 *	2.84	-0.22	0.80
<i>Agency Variables</i>						
Econ Devt Incentives	1.10 ***	3.00	1.06 ***	2.87	0.04	1.05
Formal Planning	1.01 **	2.73	-0.09	0.92	1.09 ***	2.99
Form of Govt: Mayor/Council	0.49	1.64	0.64	1.89	-0.14	0.87
Partnering: Medium	0.35	1.41	-0.12	0.88	0.47	1.60
High	1.02 *	2.77	0.34	1.40	0.68 **	1.97
State/Fed Govt partic: Low	-1.16 *	0.31	-0.66	0.52	-0.50	0.61
Med.	-0.77	0.46	-0.81	0.45	0.04	1.04
High	-1.25 *	0.29	-1.06	0.35	-0.20	0.82
Highest	-1.46 *	0.23	-1.83 **	0.16	0.37	1.45
Intercepts	-13.19 ***		-10.09 ***		-3.09	
Sample size		442				
Model chi-square		364.25 ***				
Degrees of freedom		36				
Pseudo-R <sup>2</sup>		.45				

<sup>^</sup> Both (n=134), either (n=197), or neither (n=111).  
All tests are two-tailed: \*p<.10, \*\*p<.05, \*\*\*p<.01

**Table 23: Post Hoc Analysis -- Exploring Unexpected Findings:  
Structural and Agency Explanations – Final Trimmed Model  
Multinomial Logit Model Estimating Local Economic Development Performance Measures:  
Cities used Both Effectiveness and Efficiency Measures, Either, or Neither<sup>^</sup>.**

Explanatory Variable	Both vs. Neither		Either vs. Neither		Both vs. Either	
	B	Odds	B	Odds	B	Odds
<i>Structural Variables</i>						
City Expenditures (log)	0.43 **	1.54	0.39 *	1.47	0.04	1.05
Labor/Employers an ED Barrier	0.12	1.13	-0.83	0.44	0.95 **	2.59
#2 ED Barrier	1.53 ***	4.61	0.43	1.54	1.10 ***	3.00
#1 ED Barrier	0.94 *	2.57	0.21	1.24	0.73 **	2.07
Competition for Investment	0.36 *	1.43	0.19	1.21	0.17	1.18
Region: North-Central	0.90	2.47	1.42 **	4.12	-0.51	0.60
North-East	-0.26	0.77	0.86	2.36	-1.11 **	0.33
West	0.78	2.19	0.95 *	2.58	-0.16	0.85
<i>Agency Variables</i>						
Econ Devt Incentives	1.09 ***	2.96	1.05 ***	2.86	0.04	1.04
Formal Planning	0.99 **	2.69	-0.11	0.89	1.10 ***	3.01
Partnering: Medium	0.37	1.45	-0.08	0.92	0.45	1.57
High	1.03 *	2.79	0.34	1.41	0.68 **	1.98
State/Fed Govt partic: Low	-1.09 *	0.34	-0.63	0.53	-0.46	0.63
Med.	-0.70	0.50	-0.70	0.50	-0.00	1.00
High	-1.19	0.30	-0.96	0.38	-0.23	0.79
Highest	-1.36 *	0.26	-1.67 **	0.19	0.32	1.37
Intercepts	-12.80 ***		-9.57 ***		-3.23	
Sample size		442				
Model chi-square		359.69 ***				
Degrees of freedom		32				
Pseudo-R <sup>2</sup>		.45				
<sup>^</sup> Both (n=134), either (n=197), or neither (n=111). All tests are two-tailed: *p<.10, **p<.05, ***p<.01						

Table 24: Summary of Trimming Decisions and Variable Effects

	Component	Explanatory Variable	Hypothesis	Level of Trimming						
				Uni	Bi	Multivariate				
						Component	Str or Agy	Str & Agy	Final	
STRUCTURE	<b>Demographics</b>	Population Size (log)	+		drop					
		Rel Pop Growth, 2000/1990 (log)	+		ns					
		Race: % Minority	+		SIG	+	ns			
		City Type (Centr&Indep+, Suburb-)	+		SIG	+	ns			
	<b>Socioeconomics</b>	<b>City Expenditures (log)</b>	+		SIG	+	+	+	+	
		Balanced City Budget	+		ns					
		Personal Income (log)	+		SIG	ns				
		Unemployment Rate (log)	-		SIG	ns				
		Housing Cost (log)	+		SIG	ns				
		Transportation Infrastructure	+		SIG	+	+	ns		
		Industry Base (Manuf/Tech)	+		SIG	+	ns			
		Lack of Available Land	+		ns					
	<b>Competition for ED</b>	<b>Lack of skilled labor &amp; employers</b>	+		SIG	+	+	+	+	
		Educational Opportunities	+		ns					
		<b>Region of US (W,NE +; S-)</b>	+		SIG	+	+	+	+	
<b>Competition for Investment</b>		+		SIG	+	+	+	+		
State Rank on Econ Devt Criteria		+		SIG	ns					
<i>Trimmed structural vars:</i>			0	5	4	3	1	<i>psR<sup>2</sup>=.18</i>		
AGENCY	<b>Organizational Chars</b>	<b>Econ Dvmt Budget (log)</b> <sup>□</sup>	+		SIG	+	ns			
		ED Budget/City Expenditures (log)	+		SIG	ns				
		<b>Econ Devt Staff Size (log)</b> <sup>□</sup>	+		SIG	+	ns			
	<b>Formal Planning</b>	Funding Barriers	-		ns					
		Relative Salary of ED Director	+		ns					
		Absolute Salary of ED Director	+	drop						
		<b>Scope of Econ Devt Incentives</b>	+		SIG	+	+	+	+	
		Technology Applications	+		SIG	ns				
		Community-Based Econ Dvmt	+		SIG	ns				
		<b>Econ Devt Activity</b> <sup>□</sup>	+		SIG	+	ns			
		Centralization	+		SIG	+	ns			
		<b>Formal Planning</b>	+		SIG	+	+	+	+	
		Priorities: % Staff Time on Devt	+		SIG	ns <sup>°</sup>				
	<b>Political Forces</b>	Planning * ED budget	+		ns					
		Priorities * ED budget	+		ns					
		<b>Pol Str</b>	Form of Government	ns		SIG	-	+	ns	
		<b>External Forces</b>	Local Govt Particip in ED	+	drop					
			Extra-Local Govt Particip in ED	+		SIG	+	ns <sup>°</sup>		
<b>Partnering with other local govts</b>	+			SIG	+	+	+	+		
Lack of Political Support	-		ns							
Business Activism	ns		SIG	ns						
Citizen Activism	+		SIG	ns <sup>°</sup>						
<i>Trimmed agency vars:</i>			2	5	6	5	1	<i>psR<sup>2</sup>=.42</i>		
<i>Total trimmed structural &amp; agency vars:</i>			2	10	10	8	2	<i>psR<sup>2</sup>=.44</i>		

Note: Supported hypotheses shown in bold.

<sup>□</sup> ED staff size, budget, and activities had indirect positive effects (mediated by the incentives variable).

<sup>°</sup> A two-tailed test would have revealed negative impacts for these parameters.

**Table 25: Hypotheses and Findings**

<u>Hypothesis</u>	<u>Finding</u>
H1: Community demographics will affect PM in ED:	
H1a: Population (size and growth) will positively influence PM.	Dropped population size due to multicollinearity with city expenditures. Growth n.s. at bivariate level
H1b: Higher minority populations (percent of minorities) will positively influence PM.	n.s. at multivariate level
H1c: Metropolitan status will influence PM such that use of PM will be higher in central and independent cities and lower in suburban cities.	n.s. at multivariate level
H2: Socioeconomic conditions will affect PM in ED:	
H2a: Wealthier local economies (city expenditures, housing values, technology/manufacturing industry base, and greater transportation infrastructure) will positively influence PM.	<ul style="list-style-type: none"> <li>▪ <b>City expenditures signif.</b> in final model</li> <li>▪ Housing values, industry base, and transportation infrastructure n.s. at multivariate level</li> </ul>
H2b: Municipal fiscal health (city revenues/pend.) will positively influence PM.	n.s. at bivariate level
H2c: Citizen fiscal health (personal income, employment) will positively influence PM.	n.s. at multivariate level
H2d: Educational opportunities (presence of college or university) will positively influence PM.	n.s. at bivariate level
H2e: Barriers to ED (lack of skilled labor, major employers, and available land) will positively influence PM.	<ul style="list-style-type: none"> <li>▪ Land barriers n.s. at bivariate</li> <li>▪ <b>Labor/employer barriers signif.</b> in final model</li> </ul>
H3: Competition for ED will affect PM in ED:	
H3a: Competition (from other govt's) in attracting investment will positively influence PM.	<b>Competition-for-investment signif.</b> in final model
H3b: Region of the U.S. will influence PM such that use of PM will be higher in the West and Northeast and lower in the South.	<b>US region signif.</b> in final model
H3c: State-level indicators of ED vitality will positively influence PM.	n.s. at bivariate level

**Table 25: Hypotheses and Findings, continued**

<u>Hypothesis</u>	<u>Finding</u>
H4: Organizational characteristics will affect PM in ED:	
H4a: Resources and technical capacity will influence PM in ED	
H4a_1: Greater resources (staff size, budget, and salary) will positively influence PM.	<ul style="list-style-type: none"> <li>▪ <b>Budget &amp; staff size</b> n.s. at multivariate level, but post-hoc analysis shows indirect multivariate effects mediated by incentives.</li> <li>▪ Relative salary n.s. at bivariate level</li> <li>▪ Absolute salary dropped due to sample size reduction</li> </ul>
H4a_2: Funding barriers will negatively influence PM.	n.s. at bivariate level
H4a_3: Greater technical capacity (incentives, technology applications, community-based programs, and ED activity) will positively influence PM.	<ul style="list-style-type: none"> <li>▪ <b>Incentives</b> signif. in final model</li> <li>▪ <b>ED activity</b> n.s. at multivariate level, but post-hoc analysis shows indirect multivariate effects mediated by incentives</li> <li>▪ Tech applications &amp; community-based programs n.s. at multivariate level</li> </ul>
H4b: Organizational structure will influence PM:	
H4b_1: Centralization (cities having a separate ED department) will positively influence PM	n.s. at multivariate level
H4b_2: Formal planning will positively influence PM.	<b>Formal planning</b> signif. in final model
H4b_3: The effect of ED resources on PM will increase with formalized planning.	n.s. at bivariate level

**Table 25: Hypotheses and Findings, continued**

<u>Hypothesis</u>	<u>Finding</u>
H4c: Organizational focus will influence PM:	
H4c_1: The percent of ED staff time spent on development activities (rather than retention and attraction activities) will positively influence PM.	n.s. at bivariate level; two-tailed test reveals negative impact
H4c_2: The effect of staff time spent on development activities (rather than retention and attraction activities) on PM should be greater when cities have more organizational resources.	n.s. at bivariate level
H5: Political institutional structure will affect PM in ED:	
H5a: Form of government (mayor-council vs. council-manager) will <i>not</i> influence PM	n.s. at multivariate level
H6: External forces will affect PM in ED:	
H6a: Citizen activism will positively influence PM.	n.s. at multivariate level; two-tailed test reveals negative impact
H6b: Business activism will <i>not</i> influence PM.	n.s. at multivariate level
H6c: Lack of political support for ED will negatively influence PM.	n.s. at bivariate level
H6d: Local government participation in developing ED strategies will positively influence PM.	Removed var due to lack of variaton
H6e: Extra-local (state and federal) government participation in developing ED strategies and funding grants will positively influence PM.	n.s. at multivariate level; two-tailed test reveals negative impact
H6f: Partnering with other local governments will positively influence PM.	<b>Partnering</b> signif. in final model

**Table 25: Hypotheses and Findings, continued**

<u>Hypothesis</u>	<u>Finding</u>
H7: Compared to the set of structural variables, the set of agency variables will have more impact on PM in ED.	<b>Hypothesis supported</b>
H8: The set of agency variables will explain PM in ED over and above the impact of structural variables.	<b>Hypothesis supported</b>
H9: PM in ED will be explained by structure (i.e., demographics, socioeconomic conditions, & competition for ED) and agency (organizational characteristics, political institutional structure, & external forces).	<p data-bbox="1015 548 1442 762"><b><i>Final model – direct effects:</i></b>  <b>City expenditures, labor/employer barriers, US region, competition for investment, scope of incentives, formal planning, partnering.</b></p> <p data-bbox="1015 806 1414 907"><b><i>Final model – Indirect effects:</i></b>  <b>ED budget, staff size, &amp; activity</b></p>

**VIII. APPENDIX: SURVEY INSTRUMENTS**



777 North Capitol Street, NE
Suite 500
Washington, DC 20002-4201

Economic Development 1999

Dear Chief Administrative Officer:

ICMA is conducting a survey on economic development in local governments. The information obtained will provide data on practices, experiences, and policies that will be reported in several ICMA publications. Please assure the success of this project by completing the questionnaire and returning it to ICMA within three weeks.

Thank you for your participation.

Sincerely,

William H. Hansell, Jr.
Executive Director

General

- 1. In the next five years do you expect a:
a. population increase
b. population decrease

A. Please indicate the anticipated percent of increase or decrease. \_\_\_\_\_ %

2. What percent of those working in your jurisdiction live there? \_\_\_\_\_ %

3. Which of the following best describes your local government's primary economic base (1) during the last five years and (2) which do you think it will be over the next five years? (Check only one in each column.)

Table with 2 columns: Last five years, Next five years. Rows include: a. Agricultural (farming and supporting industries), b. Manufacturing, c. Retail/service, d. Institutional (military, government, nonprofit, etc.), e. Residential community (commuters), f. Tourism/hospitality, g. Warehousing/distribution, h. Technology/telecommunications, i. Other (Please specify.)

- 4. What percent of your land area is zoned for:
a. Commercial/industrial/manufacturing use \_\_\_\_\_ %
b. Residential use \_\_\_\_\_ %
c. Open space \_\_\_\_\_ %

5. Which of the following describes the condition of your local government's economic base (1) during the *last* five years and (2) which do you think it will be over the *next* five years? (Check only one in each column.)

	Last five years	Next five years
a. Rapid expansion (more than 25%)	<input type="checkbox"/>	<input type="checkbox"/>
b. Moderate growth (10-25%)	<input type="checkbox"/>	<input type="checkbox"/>
c. Slow growth (less than 10%)	<input type="checkbox"/>	<input type="checkbox"/>
d. Economic base is stable - no real growth or decline	<input type="checkbox"/>	<input type="checkbox"/>
e. Slow decline (less than 10%)	<input type="checkbox"/>	<input type="checkbox"/>
f. Moderate decline (10-25%)	<input type="checkbox"/>	<input type="checkbox"/>
g. Rapid decline (more than 25%)	<input type="checkbox"/>	<input type="checkbox"/>

6. Does your local government have a written economic development plan?  a. Yes  b. No

7. Which of the following participate in developing your local government's economic development strategies? (Check all applicable.)

- |   |   |
|---|---|
| <input type="checkbox"/> a. City                              | <input type="checkbox"/> g. Public/private partnership              |
| <input type="checkbox"/> b. County                            | <input type="checkbox"/> h. Private economic development foundation |
| <input type="checkbox"/> c. Chamber of Commerce               | <input type="checkbox"/> i. Utility                                 |
| <input type="checkbox"/> d. Private business                  | <input type="checkbox"/> j. State government                        |
| <input type="checkbox"/> e. Citizen advisory board/commission | <input type="checkbox"/> k. Federal government                      |
| <input type="checkbox"/> f. Ad hoc citizen group              | <input type="checkbox"/> l. Other (Please specify.) _____           |

A. Please indicate the top two participants by putting the corresponding letter in the space provided. 1. \_\_\_\_\_ 2. \_\_\_\_\_

8. How many of your professional staff spend at least 70% of their time on economic development activities? \_\_\_\_\_

9. How much did your local government *budget* for economic development activities for FY 1999? \$ \_\_\_\_\_

A. List the top two funded activities? 1. \_\_\_\_\_ 2. \_\_\_\_\_

10. Do you think your economic development budget over the next five years will (Circle one number.)

<b>Significantly decrease</b>		<b>Remain the same</b>		<b>Significantly increase</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

11. Please identify your competition in attracting investment in your jurisdiction. (Check all applicable.)

- |  |   |
|--|---|
| <input type="checkbox"/> a. Nearby local governments                 | <input type="checkbox"/> d. Other states                  |
| <input type="checkbox"/> b. Other local governments within the state | <input type="checkbox"/> e. Foreign countries             |
| <input type="checkbox"/> c. Local governments in surrounding states  | <input type="checkbox"/> f. Other (Please specify.) _____ |

A. Please indicate the top two competitors by putting the corresponding letter in the space provided. 1. \_\_\_\_\_ 2. \_\_\_\_\_

12. How has NAFTA affected your local government over the past five years? (Check all applicable.)

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> a. Job loss                                  | <input type="checkbox"/> d. No effect                                 | <input type="checkbox"/> g. Other (Please specify.) _____ |
| <input type="checkbox"/> b. Revenues from U.S. exports have decreased | <input type="checkbox"/> e. Job creation                              |   |
| <input type="checkbox"/> c. Illegal immigration has decreased         | <input type="checkbox"/> f. Revenues from U.S. exports have increased |   |

13. Do private companies contribute funds to your local government's marketing efforts?

- a. No  
 b. Yes

A. If yes, how much do you expect to collect for FY 1999? \$ \_\_\_\_\_

14. Please indicate which of the following sources of government revenue are used to fund your economic development programs. (Check all applicable.)

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> a. Local revenues/general fund | <input type="checkbox"/> d. General obligation bonds          | <input type="checkbox"/> g. Special assessment districts  |
| <input type="checkbox"/> b. Federal grants-in-aid       | <input type="checkbox"/> e. Revenue bonds                     | <input type="checkbox"/> h. Other (Please specify.) _____ |
| <input type="checkbox"/> c. State grants-in-aid         | <input type="checkbox"/> f. Tax increment financing districts |   |

A. Please indicate the top two sources of revenue by putting the corresponding letter in the space provided. 1. \_\_\_\_\_ 2. \_\_\_\_\_

15. Which of the following technology applications has your local government implemented *as part of its economic development efforts?*

*(Check all applicable.)*

- a. Kiosks with touch-screen computers
- b. Videos
- c. Hand-held computer terminals used in the permit and inspection process
- d. On-line computer services (access to government services and information through computer and modem)
- e. Interactive faxing (faxing permits, forms, and applications for a fee)
- f. Smart buildings (e.g., equipped with technologies that turn lights on and off, that read security cards, etc.)
- g. Intelligent vehicle highway systems (e.g., electronic toll collectors)
- h. Fiber optic networking/cable
- i. Other *(Please specify.)* \_\_\_\_\_

16. Does your local government consider its telecommunications infrastructure to be an economic development tool or asset?

- a. Yes
- b. No

17. What percentage of your staff's time is devoted to the following activities?

- a. Retention \_\_\_\_\_ %
- b. Attraction \_\_\_\_\_ %
- c. Development \_\_\_\_\_ %

18. Which of the following sectors are the focus of your economic development efforts?

- a. Agricultural (farming and supporting industries)
- b. Manufacturing
- c. Retail/service
- d. Institutional (military, government, nonprofit, etc.)
- e. Residential community (commuters)
- f. Tourism/hospitality
- g. Warehousing/distribution
- h. Technology/telecommunications
- i. Other *(Please specify.)* \_\_\_\_\_

19. Which of the following barriers to economic development has your local government encountered? *(Check all applicable.)*

- a. Citizen opposition
- b. Availability of land
- c. Cost of land
- d. Lack of skilled labor
- e. Limited number of major employers
- f. Declining market due to loss of population
- g. Traffic congestion
- h. Lack of capital/funding
- i. Lack of political support
- j. Other *(Please specify.)* \_\_\_\_\_

A. Please indicate the top two barriers to economic development by putting the corresponding letter in the space provided.

1. \_\_\_\_\_ 2. \_\_\_\_\_

B. What are you doing to address the top two barriers?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

20. Does your local government support any of the following programs to promote economic development and if "yes," how does the local government provide the program?

**Local government supports program?**

**How does the local government provide for these programs?**  
*(Check all applicable.)*

	Yes	No	Non-profit	For-profit	Government agency	Public private partnership
--	-----	----	------------	------------	-------------------	----------------------------

a. Economic development zones/tax incentives	<input type="checkbox"/>					
b. Community development corporation	<input type="checkbox"/>					
c. Community development loan fund	<input type="checkbox"/>					
d. Microenterprise program	<input type="checkbox"/>					
e. Welfare-to-Work	<input type="checkbox"/>					
f. Job training	<input type="checkbox"/>					
g. Other <i>(Please specify.)</i> _____	<input type="checkbox"/>					

**Program**

### Business Retention

21. Does your local government have a written business retention plan?  a. Yes  b. No

22. Please indicate which of the following business retention activities your local government conducts.

- a. Local government representative calls on local company
- b. Local government representative calls on national company headquarters
- c. Surveys of local business
- d. Business roundtable
- e. Revolving loan fund program
- f. Ombudsman program
- g. Achievement awards
- h. Local business publicity program
- i. Replacing imports with locally supplied goods
- j. Export development assistance
- k. Partnering with other non-governmental organizations (e.g., chamber of commerce, private firms)
- l. Partnering with other local governments
- m. Other (*Please specify.*) \_\_\_\_\_

### Business Attraction

23. Does your local government have a written business attraction plan?  a. Yes  b. No

24. Which of the following methods does your local government use to attract business?

- a. Community resource databases
- b. Promotional material
- c. Media advertising
- d. Direct mail
- e. Participation in trade shows
- f. Attendance at conferences
- g. Local government representative calls on prospective companies
- h. Hosts special events
- i. Ambassador program
- j. Trade missions abroad
- k. Regional approaches (pooling resources)
- l. Website
- m. Other (*Please specify.*) \_\_\_\_\_

25. In your local government's business attraction program, what has been the emphasis on attracting non-manufacturing commercial businesses?

**Very high**
**Moderate**
**Very low**  
1
2
3
4
5

26. Does your jurisdiction have special technology zones that are designed to encourage technology-related industries and businesses to move to your jurisdiction?

- a. No
- b. Yes

A. If "yes," please indicate the incentives used in the technology zones to encourage technology-related industry and business. (*Check all applicable.*)

- 1. Reduction in permit fees
- 2. Reduction in user fees
- 3. Flexibility in special zoning
- 4. Ordinance exemptions
- 5. Reduction in gross receipts tax
- 6. Other (*Please specify.*) \_\_\_\_\_

27. Please indicate (1) which of the following provides most of your current business prospects and (2) which you would like to attract in the future. (*Check only one in each column.*)

	<b>Current</b>	<b>Future</b>
a. Agricultural (farming and supporting industries)	<input type="checkbox"/>	<input type="checkbox"/>
b. Manufacturing	<input type="checkbox"/>	<input type="checkbox"/>
c. Retail/service	<input type="checkbox"/>	<input type="checkbox"/>
d. Institutional (military, government, nonprofit, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
e. Residential community (commuters)	<input type="checkbox"/>	<input type="checkbox"/>
f. Tourism/hospitality	<input type="checkbox"/>	<input type="checkbox"/>
g. Warehousing/distribution	<input type="checkbox"/>	<input type="checkbox"/>
h. Technology/telecommunications	<input type="checkbox"/>	<input type="checkbox"/>
i. Other ( <i>Please specify.</i> ) _____	<input type="checkbox"/>	<input type="checkbox"/>

**Small Business Development**

28. Does your local government have a written small business development plan?  a. Yes  b. No
29. Which of the following does your local government offer for small business development? (*Check all applicable.*)
- a. Revolving loan fund  f. Business incubator
- b. Small business development center  g. Vendor/supplier matching
- c. Executive on loan/mentor  h. Matching improvement grants (physical upgrades to business properties)
- d. Management training  i. Other (*Please specify.*) \_\_\_\_\_
- e. Marketing assistance

**Business Incentives**

30. Does your local government offer business incentives?  a. Yes  b. No

Answer questions 31 - 36 only if you checked "yes" in question 30.

31. Do you require a performance agreement as a condition for providing business incentives?  
 a. Always  b. Sometimes  c. Never
32. Do you perform a cost/benefit analysis prior to offering business incentives?  a. Yes  b. No
33. Do you have formal written criteria used to determine eligibility for business incentives?  a. Yes  b. No
34. Please indicate any change in the dollar value of the average business incentive package over the last five years? (*Circle one number.*)
- |                    |   |                       |   |                  |
|--------------------|---|-----------------------|---|------------------|
| <b>Much larger</b> |   | <b>About the same</b> |   | <b>Much less</b> |
| 1                  | 2 | 3                     | 4 | 5                |

35. Please indicate which of the following incentives your local government offers. (*Check all applicable.*)
- |  |   |
|--|---|
| <input type="checkbox"/> a. Tax abatements<br><input type="checkbox"/> b. Tax credits<br><input type="checkbox"/> c. Locally designated enterprise zones<br><input type="checkbox"/> d. Federal/state designated enterprise zones<br><input type="checkbox"/> e. Tax increment financing<br><input type="checkbox"/> f. Grants<br><input type="checkbox"/> g. Infrastructure improvements<br><input type="checkbox"/> h. Free land or land write downs<br><input type="checkbox"/> i. Employee screening<br><input type="checkbox"/> j. Training support | <input type="checkbox"/> k. Utility rate reduction<br><input type="checkbox"/> l. Zoning/permit assistance<br><input type="checkbox"/> m. Regulatory flexibility<br><input type="checkbox"/> n. Relocation assistance<br><input type="checkbox"/> o. Low-cost loans<br><input type="checkbox"/> p. One-stop permit issuance<br><input type="checkbox"/> q. Special assessment districts<br><input type="checkbox"/> r. Subsidized buildings<br><input type="checkbox"/> s. Other ( <i>Please specify.</i> ) _____ |
|--|---|

- A. Please indicate the top two most frequently used incentives by putting the corresponding letter in the space provided.  
 1. \_\_\_\_\_ 2. \_\_\_\_\_

36. Please indicate how your local government measures the effectiveness of business incentives. (*Check all applicable.*)
- |  |  |
|--|--|
| <input type="checkbox"/> a. Amount of jobs created by the new business<br><input type="checkbox"/> b. Amount of money invested in construction materials and labor<br><input type="checkbox"/> c. New dollars invested in land<br><input type="checkbox"/> d. Number of new businesses relocating or expanding in jurisdiction | <input type="checkbox"/> e. Company revenue/sales<br><input type="checkbox"/> f. Cost/benefit analysis<br><input type="checkbox"/> g. Other ( <i>Please specify.</i> ) _____ |
|--|--|

**Local Government Profile**

37. Does your local government use performance measures to assess the effectiveness of its economic development efforts?
- a. No  
 b. Yes
- A. If "yes," which of the following performance measures are used (*Check all applicable.*)
1. Input measures (e.g., number of staff hours expended by program)
2. Output measures (e.g., number of organizations that receive assistance by program)
3. Efficiency measures (e.g., program expenditures per estimated tax dollars generated)
4. Other (*Please specify.*) \_\_\_\_\_



In order for your jurisdiction's personnel to be listed in *The Municipal Year Book*, this survey must be completed and returned to ICMA.

FOR ADDRESS CORRECTIONS	
P.O. Box	P.O. Box Zip
Street Address	
City	Street Zip

**PLEASE CHECK & CORRECT ADDRESS**

→

→

MAIN LOCAL GOVERNMENT TELEPHONE NUMBER	
FAX TELEPHONE NUMBER	
LOCAL GOVERNMENT WEB SITE ADDRESS	

Please see reverse side for instructions.

	FIRST NAME	M.I.	LAST NAME	SEX	RACE	HISP	ANNUAL SALARY
CHIEF ELECTED OFFICIAL							\$
CHIEF APPOINTED ADMINISTRATIVE OFFICER							\$
ASSISTANT CHIEF ADMINISTRATIVE OFFICER							\$
CLERK							\$
CHIEF FINANCIAL OFFICER							\$
HEALTH OFFICER							\$
TREASURER							\$
DIRECTOR OF PUBLIC WORKS							\$
ENGINEER							\$
DIRECTOR OF WELFARE/HUMAN SERVICES							\$
CHIEF LAW ENFORCEMENT OFFICIAL							\$
FIRE CHIEF							\$
DIRECTOR OF ECONOMIC DEVELOPMENT/PLANNING							\$
PERSONNEL DIRECTOR							\$
RISK MANAGER							\$
DIRECTOR OF PARKS & RECREATION							\$
SUPERINTENDENT OF PARKS							\$
DIRECTOR OF RECREATION							\$
CHIEF LIBRARIAN							\$
DIRECTOR OF INFORMATION SERVICES							\$
PURCHASING DIRECTOR							\$

19
YEAR APPTD

**PLEASE RETURN TO:**  
 Lisa A. Huffman  
 Coordinator of Survey Research Activities  
 ICMA  
 777 N. Capitol Street, NE, #500  
 Washington, DC 20002-4201

over, please

## DIRECTORY OF LOCAL GOVERNMENT OFFICIALS

This survey is being sent to cities, villages, boroughs, towns, townships, and counties. Please enter the names of the officials in your government who perform the **duties** of the positions listed on the form. The titles of the positions may vary. The results will be published in ICMA's *Municipal Year Book*.

### INSTRUCTIONS

1. Please print an entry for every position listed on this form that your jurisdiction has.
  - Do not enter a name more than once, even if the same person functions in several positions. Enter the name in the space for the position where the person spends the most time.
  - The position "Chief Appointed Administrative Officer" refers to those appointed to the position, **not elected**. Please indicate the year in which the individual was appointed to the position.

2. Use the following guidelines regarding punctuation and titles:

- Eliminate punctuation except for an apostrophe.
- Eliminate titles.

3. Using the codes below, indicate the gender and race of the official and if the official is Hispanic.

Gender "F"	=	Female
"M"	=	Male
Race "AA"	=	African American
"NA"	=	Native American
"AS"	=	Asian
"C"	=	Caucasian
"O"	=	Other
Hispanic "Y"	=	Yes
"N"	=	No

4. Please make any corrections and/or additions to the P.O. Box and P.O. zipcode and to the street address and zipcode.
5. Please enter the main telephone number and fax number. Enter any change in area code.
6. Enter annual salary for each official as of July 1 of this year. Round to whole dollars. Convert monthly or weekly salaries to annual salaries. Include any deferred compensation.