

The Effects of City-County Consolidation: A Review of the Recent Academic Literature

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Executive Summary

The Indiana General Assembly is currently considering legislation that would allow for the further consolidation of public services in Marion County and the city of Indianapolis. At the request of the Marion County Consolidation Study Commission, we reviewed the recent academic research on the effects of local government consolidation to identify key issues, questions, and impacts that might help inform commission members as they deliberate on proposals. A careful review of the literature yields some narrow but relevant findings that are consistent with economic theory and pertinent to local government practice.

A few studies have focused on the effects of the 1969 *consolidation of the Indianapolis and Marion County* governments. This literature suggests that consolidation was essential for Indianapolis to revitalize its downtown, foster regional thinking, and may have contributed to economic growth in the region.

Beyond Indianapolis, the more recent literature suggests that *police services* do not often experience economies of scale as the level of production increases. Thus, creating larger departments through the consolidation of police services will not likely lead to lower costs of provision.

The literature on consolidation and *general government performance* seems to point to mixed effects. Reese's summary (p. 605) is perhaps indicative of the literature in this area: "In short, some things have stayed the same, some things have improved, and some things have become more complicated. The outcomes...have been mixed." In general, it is uncommon (although not impossible) for operating costs to decrease—due primarily to the "leveling up" of salaries and benefits. As local governments with differing compensation structures are consolidated, salaries and benefits are often standardized at the higher level.

Consolidation hopes to influence *economic development* through more efficient provision of public goods, a more coherent regional strategy to attract businesses, and addressing environmental issues and other externalities (e.g., growth issues like sprawl and traffic congestion). The literature indicates a modest but positive correlation between consolidation and economic growth, but this correlation is less impressive when compared to statewide economic growth and growth in comparable areas without consolidation.

Perhaps the most pertinent conclusion from the literature is that government consolidation can lead to serious *morale problems* among government employees as distinct government units are merged. Differences in policies, compensation scales and employee classification systems are difficult to reconcile. The complexity of the transition and the resulting stress and uncertainty are often identified as a key reason for low morale. Such problems can persist for several years after consolidation. The literature suggests that morale issues are closely tied to the manner in which

these differences are resolved. This suggests that these issues should be addressed carefully and in depth when considering consolidation.

The few studies that focus on *citizen satisfaction* suggest that citizens of consolidated governments have equivalent or higher levels of satisfaction with local government and the services provided. With respect to police services, the findings of McDavid (2002) were that citizens did not perceive a substantial difference in service quality before and after consolidation.

From the limited number of studies available on the effects of city-county consolidation, the various research methods used, and conclusions drawn from them, it is possible to draw a few relevant *conclusions*.

1. Significant gains in efficiency are unlikely.
2. Significant gains in perceived service quality are more likely but by no means assured.
3. When making modest changes to city governance—consolidating a few units of service provision—it is unlikely to significantly impact economic development.
4. Morale problems are a potential land mine with any effort to consolidate governmental units, especially those which differ considerably.
5. Context matters.

The results of the literature are spotty and often built on case-by-case analysis. Thus, the literature can best point to general principles. Beyond that, any given effort to consolidate can be done well or done poorly; and consolidation can be sold one way in theory and be done another way in practice. In a word, the literature is helpful but not definitive in establishing whether any given effort to consolidate will be beneficial for the community.

The Effects of City-County Consolidation: A Review of the Recent Academic Literature

1. Introduction

The Indiana General Assembly is currently considering legislation to allow the further consolidation of public services in the city of Indianapolis with Marion County under Unigov. As part of that process, the Marion County Study Commission asked the Indiana Policy Review Foundation to undertake a review of expert opinion on the efficacy of consolidating public services under a city-county system. The project was approved on August 31, 2005, with work on the project beginning in mid-September and completion of the project (and presentation of the results) set for mid-November, 2005.

The review includes two parts: a survey of the recent academic literature on the effects of city-county consolidation on the provision of public services, and a survey of expert opinion on the efficacy of city-county consolidation on public service provision. Both aspects of the project capture the knowledge, expertise, and opinion of researchers to help inform the deliberations of the study commission. Moreover the reports identify perspectives and research that directly addresses legislative concerns about the proposed further consolidation of public services in Indianapolis and Marion County.

This report presents the results and an analysis of the first part: a review of the recent academic literature on city-county consolidation.

2. General Considerations

Two prevailing points of view dominate the consolidation literature. On one hand, proponents of consolidation argue that metropolitan areas with many fragmented local governments result in service duplication, diseconomies of scale, and other inefficiencies. Consolidation also enhances a regional perspective and increases the prospects for regional cooperation in economic development.

On the other hand, “Public Choice” theorists suggest that consolidation limits competition between smaller units of government. Such competition provides more choice for city residents and results in more efficient levels of service provision—as people “vote with their feet” in the face of poor quality or high taxes.¹

¹ Boyne (1992b, p. 430, table 1) presents a detailed list of the benefits and costs of consolidation.

A. Quality of Research

Unfortunately, evidence in support of either view is limited. One vital limitation is the nature of the available data and analysis. Most research is largely a compendium of case studies which vary in sufficient detail that comparisons are relatively difficult and inferences relatively risky. Dolan (1990) argues further that such noisy data allows bias to more easily enter analysis within academia and the media: “arguments traditionally are based on political ideologies and impressionistic views rather than on empirical analysis.” Over a decade later, Carr (2004) noted that “...much of this literature seems to advocate, rather than analyze, this topic.” That said, a careful review of the literature does yield some narrow but relevant findings that are consistent with economic theory and pertinent to political practice.

Nevertheless, even with these limitations, the purpose of this project is to summarize the findings of the existing literature on the effects of local government consolidation. The focus of this literature review is peer-reviewed journal articles on the U.S. experience since 1990. Boyne (1992b) provides a thorough review of the pertinent academic literature prior to 1990. Beyond that, we have also included a few recent studies focusing on the Canadian experience. And given the limited number of studies focusing on police and fire services, we have included articles on those topics prior to 1990. The appendix includes a summary table of the articles reviewed in this study.

B. A Few Further Considerations

Three other caveats should be mentioned.

First, Hawkins et. al. (1991, p. 254) note that “consolidation” is a misnomer, given the continuing autonomy of fragmented governmental units and the overlaps that result. While awkward, a more accurate reference would be to “degrees of consolidation” and to focus on the degree of fragmentation within the provision of certain services. Moreover, Hawkins (and others) argue that there is no need to treat the two “sides” of the argument as competing principles that are incompatible. “Just as it is unnecessary and unwise to drive out all small-scale organizations in order to obtain the benefit of large-scale organization, it is also unnecessary and unwise to do the opposite, both as a matter of logic and because there is empirical evidence that a diversity of scales of production enhances service efficiency and represents better the full range of interests in the metropolis.” (p. 255)

Second, the literature repeatedly stresses the importance of context-specific details. For example, there is a vital difference between consolidation of capital-intensive public goods “that are well-suited to technical solutions” (Mattoon 1995) and labor-intensive public goods (e.g., social services). Generally, capital-intensive services (like sewers) achieve decreasing average costs at larger levels of production, while labor intensive services face higher average costs as the level of service output increases. So, optimal government size varies by type of service.

Third, as always, one should be wary of the distinction between theory and practice, especially given political and bureaucratic realities. As Durning and Nobbie (2000) note:

The success or failure of consolidation is not preordained by structure but depends largely on local context, including how well local governments match, the provisions of the charter that do or do not give decision-makers the flexibility to implement changes that would increase efficiency, effectiveness or fairness, who is elected to the new government, and the implementation decisions of the policy makers.

Moreover, the employees who provide public services often represent the most powerful constituencies in the electoral process. Their influence should be taken into account when crafting public policy.

3. Unigov and the Effects of Consolidation

Summary: *A few recent studies have focused on the effects of the 1969 consolidation of the Indianapolis and Marion County governments. This literature generally suggests that consolidation was essential for Indianapolis to revitalize its downtown, foster regional thinking, and may have contributed to economic growth in the region.*

Rosentraub (2000), for example, provides impressive detail on Unigov—historically and numerically, and, among other things, argues that consolidation was essential for Indianapolis to achieve downtown revitalization. Rosentraub argues that Indianapolis’s success was due to attracting more attention as a “larger city”, its ability to leverage more debt given greater total assessed property value, and a greater ability to leverage funds from various levels of government and the private sector. But he also notes that Indianapolis’s consolidation plans were far from complete. In a word, he concludes that

Indianapolis’s specific contribution to the experiment in governance models was a city-county consolidation program that concentrated a limited or select group of urban services at the regional (county) level while permitting most other critical urban services to be delivered by administrations and agencies serving different, often much smaller, areas within the county.

Similarly, Segedy and Lyons (2001) reference the *Indianapolis Regional Center Plan, 1990-2010*. Impressed by the level of detail in the plan, they conclude: “Thus, Indianapolis’s somewhat quirky approach to regionalism may be more than a mere curiosity. It may actually be a model for certain types of communities. It represents a way to foster regional thinking and acting in a largely libertarian environment.”

Blomquist and Parks (1995) also detail the history and implications of Unigov on fiscal policy, service delivery, economic development, and political impacts, noting that the effort fell far short

of complete consolidation.² Again, the impact would “depend critically on specific details of how a consolidation is designed and implemented by policymakers.” A 1993 survey revealed little difference in household perceptions of service quality. The consolidation raised the debt limit, allowed reduced insurance premia, and encouraged federal funds. Blomquist and Parks also note impressive economic growth post-consolidation and this growth compared favorably to similar metropolitan areas.³

Republican control also increased in the post-consolidation period and voter turnout increased initially. Steep declines followed, however. “The 1975 elections sent a message that Democrats could not win under Unigov [until Bart Peterson],” Blomquist and Parks observe.

4. Effects of Consolidation on Police and Fire Services

Summary: *Proponents argue that the consolidation of police services will increase efficiency through a reduction of duplicate services, equipment and positions and increase effectiveness by eliminating political tampering, lessening the ability of criminal activity to move from one jurisdiction to another, increasing professionalism, and lowering turnover rates by providing more opportunities in the merged agency. Opponents of the consolidation of police services argue that local control is important to citizens and lower costs are not likely to result from consolidation. Differences between pay scales and issues involving longevity and union membership are identified as the most difficult to address during consolidations.*

If economies of scale exist, the average cost of producing police services decreases as the level of production increases. It is particularly difficult to measure the quantity of police services provided. Some measures of police services that have been used in the literature include the number of arrests and the inverse crime rate, both of which represent only a small portion of the activities that police officers perform. Studies testing for economies of scale in the production of police services use different measures of cost and services and different assumptions and statistical methods, so it is difficult to compare results or draw firm conclusions. The more recent literature in this area suggests that police services do not experience economies of scale as the level of production increases, so creating larger departments through the consolidation of police services would not lead to lower costs of provision.

A. General Effects

McDavid (2002) examined the 1996 consolidation of three police departments in Halifax, Canada. The study compared data from surveys, interviews, and budget and manpower reports three years before the consolidation with four years after. After consolidation the number of sworn officers decreased which resulted in higher workloads for sworn officers. Service levels,

² The consolidation effort excluded fire, police, schools and township administered “poor relief”.

³ Later research by Carr and Feiock (1999), however, questions whether this growth can be attributed to consolidation. Their analysis of nine consolidated cities and counties found that increases in growth rates in the post-consolidation period were not statistically significant once statewide growth rates were factored into the analysis.

as measured by the number of officers serving the population, also decreased. Expenditures on police services increased primarily due to union negotiations which included substantial salary increases. Consolidation did not affect crime rates. Citizens were also surveyed on their perception of the quality of police services before and after consolidation. The majority of respondents in each year surveyed (78.1% in 1999) believed that the quality of police services stayed the same.

In contrast, an earlier study, Krimmel (1997), compared operational costs of the Northern York (PA) Regional Police Department (a consolidated police department consisting of eight municipalities) with eight similar and non-consolidated police departments in neighboring Lancaster County. The operational costs of the consolidated department were 28% lower than those of the non-consolidated departments (25% lower on a per capita basis). The number of officers per 1,000 population was 34% less and the number of patrol vehicles was 56% lower than in the non-consolidated department. Other benefits of consolidation were:

- the department offered more services (a canine unit, investigations unit, and juvenile specialists were added after consolidation),
- officers were able to participate in more training opportunities,
- officers had more professional choices within the department, and
- officers received higher salaries.

The management style of the police board overseeing the consolidated department is touted as a major contributor to the department's success. Each municipality has a member on the board.

McAninch and Sanders (1988) conducted a survey to measure attitudes of 102 police officers (the entire population of officers) in Bloomington and Normal, Illinois on consolidation of the two departments. They found that majority of the officers believed that a consolidated department would operate more economically, more effectively address local crime, and eliminate duplicate services and equipment. Perceived threats to pension, future raises, choice of days off, and choice of shift assignment were identified as the primary determinants of opposition to consolidation by officers in Bloomington (the larger city).

B. Economies of Scale and Costs

Finney (1997) examined economies of scale in consolidated police departments for 14 suburban departments over a four year period in Los Angeles County (CA). In Los Angeles County, 45% of the local jurisdictions use intergovernmental agreements to provide police services. He found that the average cost of providing police services (measured by the inverse crime rate and the number of arrests) increased with the quantity of police services provided, which might suggest they experience diseconomies of scale.⁴ However, the author noted that the jurisdictions that

⁴ Whether diseconomies of scale exist is difficult to determine. Diseconomies of scale imply that average costs (costs per unit of a service provided) increase as output increases. Thus, the cost of providing law enforcement per average unit increases as more public services are provided. These studies use total expenditure (cost) on police, total number of arrests, and crime rate in each jurisdiction. They find a positive relationship between police

contracted for police services appear to base their decision on cost considerations in that “police expenditures by the contracting municipalities typically are far below those found in comparably sized cities with independent police departments.”⁵

Duncombe and Yinger (1993) perform the most rigorous analysis of returns to scale in the provision of fire protection services. Their analysis indicates that the provision of fire services exhibits constant returns to population scale meaning that average costs remain constant as provision (measured by the population) increases. This result “implies that consolidating small fire departments will not result in significant cost savings.”

Two earlier studies are worth mentioning at this point because the current research tends to confirm prior analysis.⁶ Gyapong and Gyimah-Brempong (1988) estimated a production function for police services using 1984 and 1985 data on 130 municipal police departments in Michigan cities with populations of 5,000 or more. Number of arrests is the measure of output.⁷ Their estimate of economies of scale is positive indicating increasing returns to scale, but it is not statistically significant. Earlier, Gyimah-Brempong (1987) found statistically significant diseconomies of scale (average costs increase as the number of arrests increase) in the average police department in Florida using 1982 and 1983 data from 256 police departments in municipalities with populations of 5,000 or more. He also divided the sample to test for economies of scale in small, medium, and large cities. He found that police departments in large cities (41 of the 256 cities in the dataset) experienced statistically significant diseconomies of scale for police services, while police services in small and medium cities did not exhibit significant economies or diseconomies of scale.

5. Effects of Consolidation on Government Performance

Summary: *Consolidation could result in eliminating service duplication, achieving various economies of scale, and enhancing regional cooperation in economic development efforts. But consolidation also serves to limit competition and choice, perhaps resulting in poor quality and*

expenditures and number of arrests and between police expenditures and the crime rate – two separate equations and interpret this relationship to mean that police costs increase with the number of arrests and the crime rate

⁵ This suggests that there are severe measurement problems with the statistical methods used in these sorts of studies. In these studies (Finney and the Gyapong et al studies), cost is a function of arrests or crime rate (the outputs), input prices (wages and capital costs), and socioeconomic variables. These studies estimate a translog cost function which is a nonlinear regression technique. The fundamental problem is that public outputs like the production of police services are difficult to measure; these studies have used the intermediate good arrests as a proxy for production.

⁶ Several studies in the 1970s addressed economies of scale and the provision of police services, but studies from this period are not the main focus of this literature review. Walzer (1972) finds that police departments in Illinois experience economies of scale – decreasing average costs (measured as per capita expenditure on police) as the scale (a measure of the quantity of services provided by the police in different jurisdictions) increased. Other studies not reviewed in detail here: Chapman, Hirsch and Sonenblum also find economies of scale are present for police services. Ehrlich (1973), Popp and Sebold (1972) and Votey and Philips (1972) find diseconomies of scale. The assumptions and statistical methods used in these studies have been criticized in more recent studies.

⁷ Using number of arrests as the output measure may be problematic since arrests represent only a portion of the services that police provide.

higher costs. In attempting to measure these effects, one must be careful not to focus on one variable to the exclusion of others. For example, evidence of cost savings might mask deteriorating service quality and is, therefore, not necessarily indicative of improved efficiency. That said, the literature points to mixed effects. Reese's summary (p. 605) is perhaps indicative of the literature in this area: "In short, some things have stayed the same, some things have improved, and some things have become more complicated. The outcomes...have been mixed."

A. Fiscal Impacts of Cities

Miller et. al. (1995) reassessed the results of a study on Allegheny County (PA) commissioned by the Advisory Commission on Intergovernmental Relations (ACIR), that found benefits from fragmentation—citizen choice, competition among service providers, diminished fiscal disparity, greater accountability and representation. In contrast to the original ACIR report, Miller et. al. find that fiscal disparity has continued to increase despite continuing ongoing fragmentation.

Dolan (1990) developed several measures of metropolitan fragmentation to determine whether cities in more consolidated regions spend more on average than those facing more competition among local governments. Presenting new measures of fragmentation, Dolan found spending tended to increase as a metropolitan area became more fragmented.⁸

Liner (1994) analyzed annexation trends for 235 cities in 43 states between 1960 and 1970 and examined changes in spending for fire, police, and sewer. He found that total expenditures were not significantly different between cities that annexed aggressively and those that did not, but found that spending for each of these individual public services increase. After adjusting for population size, these changes in expenditures were not significant.

Selden and Campbell (2000) studied the cost of government in Athens (GA) after its consolidation with the county. They found cost-savings in some departments and in real operating expenditures, but overall, an increase in real and per capita expenditures (given one-time transition costs). The authors noted that “there is nothing intrinsic in the act of consolidation that will guarantee more efficient operations”. In-depth interviews with department heads point to the importance of individual decision-making within the new government.

Bunch and Strauss (1992) developed an interesting simulation of projected costs and revenues from the proposed consolidation of nine small, fiscally-distressed communities outside of Pittsburgh.⁹ The authors make conservative assumptions (e.g., they only include job destruction from complete overlap; and they calculate that salaries will increase to the lowest common denominator). They find some distributional effects among the communities, but on net, reduced

⁸ Boyne (1992), however, strongly criticized Dolan's measures of fragmentation, his model, and the inferences he draws from the faulty results—concluding that “Dolan's result is largely a statistical quirk produced by his measure of fragmentation”.

⁹ This research project is unique in that it wrestles with a hypothesized consolidation rather than an observed change in governance. This may seem odd, but they note that the usual empirical work makes implicit assumptions about non-consolidation after consolidation occurs.

operating deficits and greater economies of scale in service provision. Bunch and Strauss argue that the size of the city may be important to the results of consolidation, noting the literature's usual emphasis on large cities.¹⁰ A recent study by Moore, Nolan, and Segal (2005), however, found in an analysis of 46 large U.S. cities and 11 public services that city size was not a significant determinant of efficiency.

Boyne (1992) draws inferences from a literature review of the U.S. data on local government structure to the debate in the U.K. He found conflicting results with respect to horizontal fragmentation (e.g., the number of units within a local government), but explains this by noting a negative relationship for spending with multi-purpose governments and no effect on single-purpose units. Single-purpose units, Boyne noted, tend to be capital-intensive and argued that changing them is not significant enough to impact population or general economic development. He also cites mixed results or statistical difficulties for vertical fragmentation, horizontal concentration, and vertical concentration.

McKay (2004) argues that the different perspective of decision-makers within a newly-formed consolidation—or differences in stated purpose *ex ante* vs. behavior *ex post*—may limit gains in efficiency. Although consolidation can look effective on paper, the limited knowledge of consultants and the political actions of governing officials can easily detract from potential efficiencies. This belief is also supported by Moore, Nolan, and Segal (2005) who found that the single largest factor influencing the level of efficiency was whether a city was run by a city manager rather than an elected mayor.¹¹

Several studies from Canada provide potential lessons for consolidation in the United States. Reese (2004) provides analysis based on a series of three rounds of interviews with elected and administrative officials in Ottawa beginning at consolidation and continuing for two years. Savings resulting from increased economies of scale have been realized for some services such as libraries and fire service. Other services, such as snow removal and street repair have not been consolidated and economies of scale have not been realized. As overlapping elected and administrative officials were eliminated cost savings have occurred. However, some departments were short-staffed. As different pay systems were consolidated and union contracts renegotiated, pay and benefit levels have tended to increase. Overall operating costs have remained steady. Property tax rates were reduced but at the same time assessment increased due to growth pressures, so tax bills have remained the same or increased slightly. Competition for development in the region has decreased but has not been eliminated. The quality of regional planning has increased including growth management initiatives. Consolidation has resulted in increased equity in service levels.

Vojnovic (2000) examines the transition and short-term effects of consolidation in five Canadian municipalities. A variety of data including interviews, legislation, tax rate and financial reports, and surveys with municipal officials are included in the analysis. In four of the five

¹⁰ Since then, from a personal discussion with Strauss, fiscal distress has continued and been exacerbated in many of the cases. At present, Pittsburgh continues to wrestle with consolidation issues.

¹¹ Moore, Nolan, and Segal (2005) also found faster population growth was correlated with lower public-service efficiency.

municipalities, government employee responsibilities became more specialized after consolidation and the need for more specialized equipment (particularly for information and accounting systems) increased. In one municipality (Abbotsford), salary increases averaged 1.5%; in the other four municipalities, salary increases were considerably larger. Abbotsford's ability to contain salary increases was due to explicit agreements regarding salary changes made before the consolidation. Consolidation agreements should include the expected level and direction of changes in staff salaries, service standards, and taxes. Two municipalities had decreases in the overall costs of administration and service delivery after the consolidation, and two had increases. The fifth municipality is expected to have higher administrative costs since salaries were standardized at the highest levels. Larger municipalities have higher transition costs than smaller municipalities (\$75.56 per capita in Halifax versus \$3.70 in Victoriaville). In Victoriaville, numerous municipal functions were already merged prior to consolidation, which reduced transition costs. When tax rates and service levels differ dramatically in government units to be consolidated, tiered rate structures and service levels may be appropriate. The author summarizes "the success of achieving greater efficiency and effectiveness in governance and service delivery will depend on the distinct history as well as the spatial and economic circumstances" of the local governments considering consolidation. (p. 1)

Parks and Oakerson (1993) conducted a comparative analysis of two metropolitan city-counties, the city of St. Louis-St. Louis County (Missouri) and city of Pittsburgh-Allegheny County (Pennsylvania). Neither area has a consolidated city/county government. The study examined service production and government structure focusing on the level of government fragmentation (the number of local governments) in each county. One part of the study examined the relationship between population served and per capita expenditures for services provided by municipalities in each area. The authors argue that if fragmented government structures are inefficient then population and per capita expenditures should be negatively related, as municipal population increases, per capital expenditures should decrease. Statistical analysis did not support this relationship which suggests that small government structures are more efficient (can provide services at lower cost) than large government structures.

B. Economic Development

Summary: *Consolidation hopes to influence economic development through more efficient provision of public goods, a more coherent regional strategy to attract businesses, and addressing environmental issues and other externalities (e.g., growth issues like sprawl and traffic congestion). The literature indicates a modest but positive correlation between consolidation and economic growth, but this correlation weakens considerably when compared to statewide growth rates and economic growth in comparable areas without consolidation.*

Importantly, some evidence shows support for consolidation among groups interested in promoting economic growth. Edwards and Bohland (1991), for example, surveyed 1,000 people in Roanoke, Virginia, and found a strong correlation between pro-growth attitudes and the desire for consolidation. Similarly, Rosentraub (2000) attributes much of Indianapolis national

reputation and downtown revitalization to the consolidation of core development services under a unified Department of Metropolitan Development under Unigov.

More generally, Carr and Feiock (1999) analyzed attraction of manufacturing and service firms to nine cities, before and after consolidation, from 1950-1993 and found some support that consolidation was correlated with economic development. But when compared to economic development in the state, the (causal) statistical significance dissipates. Nevertheless, the relationship was positive in all cases. The authors also noted the frequent opposition of local business to consolidation and speculate that the impact of consolidation (or fragmentation) is more distributive than developmental.

Nelson and Foster (1999) analyzed 287 of the largest metropolitan areas from 1976 to 1996, concluding that “elastic central cities”—cities that were able to expand their geographic size through annexation or consolidation—large suburbs, and a regional coordination were positively correlated with per capita income growth. These results contrast with Blair, Staley, and Zhang’s (1996) analysis of 117 metropolitan areas that found no significant relationships between income and poverty rates and city “elasticity” and only modest impacts on employment and population growth.

Earlier, Foster (1993) analyzed the population growth of 129 large metropolitan areas between 1962 and 1982 and found mixed results with some variables supporting consolidation (dominant central city and consolidation within suburbs) and others supporting fragmentation (suburbs unincorporating and less centralized school districts). Moreover, younger areas grew faster and results varied by region (measured with binary variables), pointing to the need to look at specific contexts.

Feiock and Carr (1997) examined job growth after consolidation in Jacksonville, Florida. They found a positive but statistically insignificant relationship between consolidation and job growth in manufacturing, retail or service sectors. The authors speculate that effects (and perhaps, interest) are more distributional than growth-oriented.

C. Local Government Consolidation and Equity

Increasingly, supporters of local government consolidation point to the potential for equalizing income and minimizing the potential for economic and racial integration. This is particularly important in the work of advocates such as former Albuquerque mayor David Rusk (1995; 1999) and Minnesota legislator Myron Orfield (1997). Both Rusk and Orfield present evidence that cities that are geographically larger or capable of expanding to include suburban areas are less segregated by race and income.

Blair, Staley, and Zhang (1996) examined economic and demographic trends in 117 metropolitan areas and found that while economic growth was modestly related to the ability of local governments to expand, measures of metropolitan welfare were not. They concluded that the

geographic size of the city has little practical impact on achieving more equitable outcomes in metropolitan areas.

This view is supported by at least one study of a geographically large city. An analysis of public spending in the city of Phoenix by Guhathakurta (1998) examined property values for 27,933 properties in 200 census tracts and found that inner-city homes were taxed at a higher rate than similar homes in newer suburban-style neighborhoods in the city. An examination of planned spending for historic preservation, parks and recreation, storm sewers, street and bridges, and water found that newer and suburban areas of the city received the “lion’s share of the planned capital expenditure funds.” The presumption that neighborhoods would be treated more equally or fairly was not validated by his analysis.

Morgan and Mareschal (1999) attempted to determine whether inner-city/suburban economic performance and racial segregation were caused by three measures of fragmentation. Fragmented metropolitan governments were associated with more demographic segregation. One surprising result with respect to economic variables was that the smaller the central city was relative to the metropolitan area the stronger its fiscal health was. Thus, while fragmentation appeared to increase segregation, cities in more fragmented regions were stronger fiscally.

Post and Stein (2000), however, examined urban/suburban economic “dependence” by looking at the statistical relationship between urban and suburban economic performance as a function of fragmentation (measured as per capita number of governments and geographic density of governments). In contrast to their expectations and most of the then-previous literature, they found no relationship between fragmentation and urban-suburban income disparities.

6. Effects of Consolidation on Personnel Issues

Summary: *The limited number of studies on this topic precludes firm conclusions. The literature suggests that government consolidation can lead to serious morale problems among government employees as distinct governments with different policies, pay scales, etc. are merged. The complexity of the transition and the stress and uncertainty that result are identified as reasons for low morale. Differences in compensation scales and employee classification systems are difficult to reconcile and contribute to morale issues. Such morale issues persist for several years after consolidation.*

Durning (1995) conducted three surveys in January 1991 (before unification of Athens-Clarke County, Georgia), June 1992, and July 1993 of city and county employees who had previously worked in the separate city and county governments. The surveys focused on employee perceptions of government efficiency (including costs, taxes, water rates), effectiveness (service quality), responsiveness, fairness and leadership (including quality of officials), power distribution, departmental efficiency, effectiveness, and responsiveness, morale, advancement opportunities. Survey analysis indicates government workers became less optimistic about the consolidation over the 1991-1993 period. In particular employees viewed unified government as less efficient, and indicated that service quality decreased, quality of local leadership decreased,

government costs and taxes increased, employee morale decreased, department efficiency decreased, and effectiveness and responsiveness decreased compared with separate governments. Employees indicated that the consolidation did not threaten their jobs or the jobs of other employees or cause them to be assigned to less desirable jobs, and consolidation was not leading to faster pay increases or improving chances for advancement. The author points out that the negative views may result from “transition to unification, not the functioning of a unified government.” One point the author makes is that (based on mergers in other jurisdictions) it probably takes between two and four years to make the administrative/government changes needed in a typical merger.

Durning and Nobbie (2000) includes analysis of a 1997 survey that follows up on the previous surveys (above). The survey was conducted in 1997 because they expected transition issues related to the consolidation to be resolved. The 1997 survey responses were somewhat less negative but still indicated that employees found the effects of the consolidation to be “negative on them, their departments, and the government.” The authors point out that employee views of the consolidated government differ from those of the public and cite an opinion survey of the citizens of the consolidated government which indicated widespread satisfaction with government services.

Condrey (1994) examines issues surrounding the consolidation of county and city government employees in Athens-Clarke County, Georgia based on personal interviews with over 800 employees. The analysis spans 1991 through early 1993. While consolidation was expected to increase government efficiency and lower costs, the consolidated government’s charter mandated that no employees should lose their jobs due to consolidation, employees should be assigned jobs with similar duties after consolidation, no employee should receive any reduction in compensation, former city and county workers with similar responsibilities should receive uniform compensation by the end of the fourth year after unification, duplicative activities should be eliminated through attrition and reassignment. Because the compensation scales and merit increases for city and county employees prior to consolidation were quite different, projected personnel costs actually increased (7%) after consolidation. As a result, personnel costs were held down by delaying the implementation of employee classification systems and pay plan, freezing general and merit increases, early retirement, and a hiring freeze. The consolidated government workforce actually increased by about 50 positions (due to staffing a court-mandated jail facility). Decreased employee morale led to the first attempt to unionize. Not all departments were merged. Separate departments continued to exist for parks and recreation, arts and environmental education. The confusion surrounding consolidation provided an opportunity for some departments to restructure and increase the number of managers and employees. The author points out that efficiencies achieved through early 1993 were the result of spending cuts rather than efficiencies achieved from merging the two governments.

7. Effects on Regional Governance

Summary: A key reason for supporting local government consolidation is the potential for more comprehensive approaches to solving problems that are regional in scale. Several studies

suggest that those participating in decision making believe they are more capable of addressing regional concerns through consolidated government. The few studies that focus on these issues suggest that citizens of consolidated governments have higher levels of satisfaction with local government and the services provided. The limited literature is inconclusive on the relationship between consolidation and voter turnout with some studies concluding that consolidation increases voter turnout and other studies concluding that it does not.

A. Effects on Decision Making

Fleishman (2000) conducted a comparative analysis to examine the ability of city-county consolidation to influence regional problem solving. The analysis is based on 1999 interviews with 44 local leaders in four Georgia communities: two with consolidated governments, Athens-Clarke County and Augusta-Richmond County, and two that rejected merger, Macon-Bibb County and Brunswick-Glynn County. Local leaders in the two consolidated communities had positive views of the consolidated communities' ability to address issues more quickly and "without governmental bickering" and set agendas that are "more forward looking", and take the lead "on regional issues affecting surrounding counties."

Notably, Wolfson and Frisken (2000) analyzed regional governance in Toronto and York, Ontario and found that municipalities tended to compete, even when cooperation would seem to be more efficient. This would support the contentions of Rusk (1995; 1999), Orfield (1997) and others that regional approaches to local governance would allow for more a more effective decisionmaking process.

B. Effects on Citizen Satisfaction

DeHoog, Lowery, and Lyons (1990) surveyed five types of communities in two metro areas (total of 10 surveys and 150-250 respondents in each community), in Louisville-Jefferson County (KY) and Lexington-Fayette County (KY) during the mid-1980s to examine the determinants of citizen satisfaction with local government. Louisville-Jefferson County was not consolidated at the time and Lexington-Fayette County was consolidated. They examined individual, jurisdiction and city/neighborhood specific characteristics. One of the topics that they considered was citizen satisfaction with consolidated government. They found that citizens of consolidated government have higher levels of satisfaction with local government in general and service provision in particular.

Gerston and Haas (1993) reported the findings of a 1991 telephone survey in Santa Clara County – San Jose, California, a rapidly growing, urban area. This is not a consolidated government. Of 411 respondents, just over half supported the merger of several government agencies into one. Long distance commuters (> 5 miles) show stronger support than the general population for this type of merger. The authors suggest that the support is linked to the need for regional solutions to urban problems such as congestion and pollution in the area.

C. Effects on Voter Turnout

Seamon and Feiock (1995) found that voter turnout decreased after the consolidation of Jacksonville-Duval County, Florida. They examined voter turnout in the 15 years prior to and 19 years after consolidation. They concluded that consolidation decreased popular participation in government.

Kellerher and Lowery (2004) examined voter turnout in 1999-2002 municipal elections (city councils and equivalents) in 12 urban counties (total of 466 municipalities). They found that urban counties with fewer municipal governments have higher voter turnout.

8. Conclusion

From the limited number of studies available on the effects of city-county consolidation, the various research methods used, and conclusions drawn from them, it is possible to draw a few relevant conclusions:

- First, significant gains in efficiency are unlikely.
- Second, significant gains in perceived service quality are more likely but by no means assured.
- Third, when making modest changes to city governance—consolidating a few units of service provision—it is unlikely to significantly impact economic development.
- Fourth, morale problems are a potential land mine with any effort to consolidate governmental units, especially those which differ considerably.
- Finally, context matters. The results of the literature are spotty and often built on case-by-case analysis.

Thus, the literature can best point to general principles. Beyond that, any given effort to consolidate can be done well or done poorly; and consolidation can be sold one way in theory and be done another way in practice. In a word, the literature is helpful but not definitive in establishing whether any given effort to consolidate will be beneficial for the community.

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Appendix : Summary of Major Published Research in Peer-Reviewed Journals

Authors (date)	Focus	City-County	Findings
Unigov			
Rosentraub (2000)	Economic development	Indianapolis	Argues that consolidation was essential for Indianapolis to achieve downtown revitalization and that Indianapolis presents an effective hybrid model of consolidation.
Segedy & Lyons (2001)	Economic development	Indianapolis	Indianapolis's hybrid model and its impact on regional perspective are effective.
Blomquist & Parks (1995)	Fiscal ramifications, service delivery, economic development, and political impacts of Unigov.	Indianapolis	Impact depends on context. 1993 survey reveals little difference in perceptions of service quality. Consolidation allowed for higher debt limit, reduced insurance premia, and increased federal funds. Impressive economic growth post-consolidation which compares favorably to similar metro areas. Resulted in Republican control and increased voter turnout initially, followed by steep declines.
Police and Fire Services			
McDavid (2002)	Consolidation of three police departments.	Halifax, Canada	Expenditures on police services decreased substantially. The number of sworn officers decreased and workloads increased. There was no effect on crime rates. The majority of citizens surveyed believed that the quality of

			police services stayed the same.
Krimmel (1997)	Compares operational costs in a consolidated police dept with similar nonconsolidated departments.	York and Lancaster Counties, PA	The operational costs of the consolidated department were 28% lower than similar non-consolidated departments.
McAninch and Sanders (1988)	Surveyed 102 police officers on their attitudes toward consolidation.	Bloomington and Normal, IL	Majority of officers believe that a consolidated department would operate more economically, more effectively address local crime, and eliminate duplicate services and equipment. Perceived threats to pensions, future raises, etc. were the main source of opposition.
Finney (1997)	Economies of scale	14 suburban police departments, Los Angeles County, CA	The average cost of providing police services does not decrease with the quantity of police services provided.
Duncombe and Yinger (1993)	Returns to scale	Municipal fire departments in New York State.	The consolidation of small fire departments will not result in significant cost savings.
Gyapong and Gyimah-Brempong (1988)	Economies of scale	Michigan cities with population of 5000 or more.	No statistical evidence of economies of scale.
Gyimah-Brempong (1987)	Economies of scale	Florida municipalities with populations of 5000 or more.	Police departments in large cities experience diseconomies of scale.
Government Performance			
Miller et. al. (1995)	Fiscal disparity between urban and suburban	Allegheny County, PA	Fiscal disparity has continued to increase despite ongoing fragmentation
Dolan (1990)	Government spending	Cities in Illinois	Finds positive relationship between spending and fragmentation (but strongly criticized in Boyne [1992] for his measures of fragmentation, his model, and the inferences he draws from the “faulty results”).

Selden & Campbell (2000)	Government spending	Athens, GA	Finds cost-savings in some departments and in real operating expenditures, but overall, an increase in real and per capita expenditures. Focuses on the problems caused by one-time transition costs. Consolidation does not guarantee more efficient operations. Interviews with department heads point to the import of individual decision-making within the new government.
Bunch & Strauss (1992)	Consolidation as a remedy for small, fiscally-distressed communities	Small communities outside Pittsburgh, PA	Some distributional effects, but on net, reduced operating deficits and economies of scale. Authors argue that the size of the city is an important but oft-overlooked factor.
Boyne (1992)	Impact of fragmentation on government spending		Negative relationship for spending with multi-purpose governments and no effect on single-purpose units. Cites mixed results or statistical difficulties for vertical fragmentation, horizontal concentration, and vertical concentration.
McKay (2004)	Ex ante stated intentions vs. ex post decisions	Sandwell Township, Ontario	May limit gains in efficiency
Parks and Oakerson (1993)	Service production	St. Louis City and County, Missouri and Allegheny County (Pittsburgh), Pennsylvania	Smaller government structures are more efficient than large government structures.
Reese (2004)	Variety of issues including service efficiencies, service effectiveness, tax reductions, competition and economic development, planning and land use, equity, number of elected officials and responsiveness	Ottawa, Canada	Countervailing forces have offset many of the changes attributed to consolidation in Ottawa. In the long run consolidation may not make much difference in how citizens and businesses interact with and experience their local government.

Vojnovic (2000)	Variety of issues including bureaucratic specialization and employee salaries, structure of consolidation agreements, cost of administration and service delivery, size of local governments, fiscal accountability, equity	Abbotsford, British Columbia; Aldborough Township, Ontario; Victoriaville, Quebec; Miramichi, New Brunswick; the Halifax Regional Municipality, Nova Scotia	The ability of consolidated government to achieve greater efficiency and effectiveness depends on the historical and economic circumstances of the local governments involved.
Moore, Nolan, and Segal (2005)	Efficiency of 11 public services.	46 major U.S. cities	City size and scale was not related to the efficiency of public services provision.
Liner (1994)	Costs of providing fire, police, and sewer in cities that annexed aggressively	235 cities in 43 states	The ability to expand city size did not result in more efficient provision of services
Economic Development			
Post & Stein (2000)	Urban vs. suburban econ performance	150 metro areas with population > 250K	No relationship between fragmentation and income disparities
Carr & Feiock (1999)	Impact of consolidation on economic development in manufacturing and service industries	Nine cities, including Indianapolis	Consolidation is correlated with economic development, but when compared to economic development in the state, this disappears. Authors speculate that its impact is more distributive than developmental.
Nelson & Foster (1999)	Economic development proxied by income growth	287 large metro areas	“Elastic central cities”, large suburbs, and a regional coordination are positively correlated with per capita income growth.
Foster (2000)	Consolidation and Population Growth	129 Large metro areas	Author finds mixed results—with some variables supporting consolidation (dominant central city and consolidation within suburbs) and others supporting fragmentation (suburbs)

			unincorporating and less centralized school districts). Also finds that younger areas grow faster and results vary by region (measured with binary variables), pointing to the need to look at specific contexts.
Feiock & Carr (1997)	Consolidation and job growth in manufacturing, retail, service sectors.	Jacksonville, FL	Positive but statistically insignificant relation between consolidation and job growth in manufacturing, retail or service sectors. Authors speculate that effects are more distributional than growth-oriented.
Edwards & Bohland (1991)	Popular desire for consolidation	Survey of 1000 people in Roanoke, VA	Strongest correlation between pro-growth attitudes and desire for consolidation
Hawkins et. al. (1991)	Political prospects for consolidation	Various metro areas	Argues for a case-specific analysis based on their context.
Blair, Staley, and Zhang (1996)	Metropolitan development and city size	117 metropolitan areas	“Elasticity”—the ability of cities to expand through annexation or consolidation—was not associated with income growth or poverty rates, but had small positive impacts on population and employment growth
Equity			
Morgan & Mareschal (1999)	Economic performance and segregation	97 large metro areas	Central city as smaller % of the total population results in greater fiscal health. Fragmentation appears to increase segregation.
Guhathakurta (1998)	Property values and distribution of public spending within a large city	City of Phoenix	Spending for five major public services was not more equitable; inner city neighborhoods tended to face higher tax rates
Regional Governance			

Durning (1995)	Employees of consolidated government (Survey)	Athens-Clarke County, GA	Consolidation had a negative effect on employee morale.
Durning and Nobbie (2000)	Employees of consolidated government (Survey)	Athens-Clarke County, GA	Consolidation had a negative effect on employee morale.
Condrey (1994)	Employees of consolidated government (Interviews with more than 800 employees)	Athens-Clarke County, GA	Increased efficiencies were the result of spending cuts rather than efficiencies achieved from merging the two governments.
Wolfson & Frisken (2000)	Regional competition within econ development	Toronto and York, Ontario	Municipalities tended to compete, even when cooperation would seem to be more efficient.
Seamon and Feiock (1995)	Voter turnout rates	Jacksonville-Duval County	Voter turnout rates decrease after participation.
Kellerher and Lowery (2004)	Voter turnout rates	12 urban counties	Urban counties with fewer municipal government have higher voter turnout
Fleishman (2000)	Regional Problem Solving (Interviews with local leaders)	4 Georgia communities – 2 consolidated and 2 that rejected merger	Local leaders in the 2 consolidated communities had a positive view of consolidation in addressing regional issues.
DeHoog, Lowery, and Lyons (1990)	Citizen satisfaction with local government	Louisville-Jefferson County, KY and Lexington-Fayette County, KY	Citizens of consolidated government have higher levels of satisfaction with local government in general and service provision in particular
Gerston and Haas (1993)	Support for the merger of government agencies.	Santa Clara County, San Jose, CA	Support for the merger of several government agencies into one

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