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COMMENT

IS THERE A RELATIONSHIP BETWEEN FRAGMENTATION AND LOCAL GOVERNMENT COSTS? A Comment on Drew Dolan (*UAQ* 26: 28-45)

In a recent article in this journal, Drew Dolan (1990, 42) concluded that local government fragmentation "does appear to have a strong positive relationship with the cost of government." This conclusion is potentially of great practical and theoretical importance. The practical implication of Dolan's analysis is that money would be saved by replacing fragmented local governments with consolidated local governments, and the theoretical implication is that public-choice models of local policymaking are mistaken. However, Dolan's conclusion is inconsistent with the findings of most other analyses of the relationship between fragmentation and local government costs (Boyne forthcoming). The aims of this comment are to explore the reasons for this inconsistency and to challenge the validity of Dolan's evidence. First, I outline the policy debate on the reform of local government structure. Next, I analyze theoretical perspectives and recent empirical evidence on fragmentation. Finally, I evaluate Dolan's empirical test and argue that his conclusions are incorrect.

FRAGMENTATION AND LOCAL GOVERNMENT REFORM

Dolan's conclusion that fragmentation is associated with higher expenditure is directly relevant to current proposals for local government reform, not only in the United States but also in Western Europe (Derksen 1988). For example, in the United Kingdom in 1974, the all-purpose county boroughs were replaced by a two-tier structure of local government that divided service

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responsibilities between county and district councils. It has been argued that the new structure has led to less efficient service provision (see Sharpe 1981). Increased costs may have been produced by problems of service coordination (for example, between county welfare services and district housing services) and duplication of tasks (for example, joint county and district responsibilities for land-use planning). There is an emerging consensus that the two-tier structure should be abolished and service responsibilities consolidated within a single tier of authorities akin to the old county boroughs. For example, the Conservative government has recently published a consultation paper on local government reform in Wales that states that it is "persuaded of the advantages which would be gained if people could identify one authority which was responsible for ensuring the delivery of local services in their area" (Welsh Office 1991). However, the U.K. evidence on these issues is largely impressionistic. Thus valid evidence on the effects of local government fragmentation would be a useful empirical underpinning to the current policy debate.

FRAGMENTATION: THEORIES AND EVIDENCE

Dolan's analysis is intended to shed light on the relative merits of conventional public administration and new public-choice theories of local government (Ostrom, Tiebout, and Warren 1961; Ostrom 1972). Conventional models suggest that local governments should be consolidated into large, multipurpose, unitary authorities and that such a reform will enhance efficiency through better coordination of services and economies of scale. In contrast, public-choice models suggest that fragmented local government systems are preferable because interagency competition restrains the expenditure urges of bureaucrats and that small and single-purpose agencies facilitate public scrutiny and promote accountability. Thus the duplication and overlapping that is condemned as chaotic and pathological in conventional models is regarded as ordered and healthy in public-choice models (Ostrom 1983).

Dolan (1990, 33) stated that "empirical analyses that provide evidence of the presence or absence of the adverse effects of fragmentation are lacking." However, there is a substantial body of evidence on the policy consequences of local government structure, and most of it suggests that fragmentation is associated with lower costs. Ostrom (1983) provided an overview of studies published in the 1970s. Those studies and more recent studies have indicated that fragmentation promotes economy and efficiency in local service provision. For example, Mehay (1984) found that expenditure is lower if fire and

recreation services are provided by independent special districts rather than by multipurpose agencies. Similarly, DiLorenzo (1981, 575) found "a striking increase in per capita general expenditure, ceteris paribus, in those states that have imposed effective restrictions on the growth of single-purpose special districts."

In another study DiLorenzo (1983) examined the relationship between fiscal concentration ratios of local government in county areas and the combined spending per capita of all local agencies. Concentration was measured as the share taken by the four biggest spending agencies of all expenditure and all local tax revenue in the county. DiLorenzo (1983, 206) concluded that "the results are mixed but do tend to support the contention that a reduction in the degree of interjurisdictional competition tends to increase the cost of providing local public services." The relationship between central-city expenditures and the number of local government units in a metropolitan area was analyzed by Sjoquist (1982), who found a negative relationship between these two variables. Finally, Schneider (1986) examined the impact of the number of local government units per capita on changes in expenditures and service levels in suburban municipalities. The evidence again suggested that costs are higher if there are fewer local government units.

In sum, Dolan's (1990) analysis is peculiar in its general conclusion that there is a significant positive relationship between fragmentation and local government expenditure. It is possible, of course, that Dolan's result is right and all the others are wrong. It is also possible that the relationship between fragmentation and costs varies across locations and time periods or that it varies with the size of local government units (see Wagner and Weber 1975). However, as will be shown, the explanation for Dolan's result is largely a statistical quirk produced by his measure of fragmentation.

DOLAN'S ANALYSIS

Dolan assessed the relationship between fragmentation and the combined spending of all local government units in Illinois counties. He measured fragmentation in three ways. Two of the measures are traditional: the absolute number of governmental units and the number of units per capita. The first of these measures, which is probably a scale proxy in any case, has a weak positive relationship with costs. The second measure, which controls for scale, has a significant negative relationship with costs. However, the burden of Dolan's analysis rests on a new measure of fragmentation: the dispersion of per capita spending across the local government units in an area. This measure is similar in principle to the concentration ratios used by DiLorenzo (1983) to indicate fiscal fragmentation. However, unlike DiLorenzo, Dolan found that his variable had a strong positive relationship with the combined spending of all the local government units, and therefore he concluded that fragmentation "drives up costs."

However, there are several problems with Dolan's analysis that invalidate this conclusion. First, the rationale for the expenditure dispersion measure of fragmentation is weak. Dolan (1990, 36) stated that "the theoretical foundation for the creation of the variable is that the duplication of services and overlapping jurisdictions will be better represented by a variable based on the total expenditures of local government units than by a variable that represents only the actual number of units of government." The superiority of the dispersion measure is simply asserted rather than argued. It is far from clear how expenditure dispersion indicates duplication and overlapping of services. For example, it might be expected that if units overlap geographically and provide some of the same services, then their spending will be pulled toward a common position, assuming some responsiveness to local circumstances and demands. Thus it is conceivable that expenditure dispersion is *inversely* related to fragmentation.

Second, the dispersion measure of fragmentation is tautologically correlated with total local government costs in each county. Dolan's measure of dispersion is the *standard deviation* of per capita expenditure across local government units. This measure is bound to have a higher value in areas where the level of expenditure is high. To avoid this inherent positive relationship between fragmentation and costs, one might better use a dispersion measure such as the coefficient of variation (standard deviation divided by the mean). This measure has no necessary positive relationship with the level of spending.

The implications of the measurement of dispersion can be illustrated with data on spending by English local councils. Within each of the 39 English nonmetropolitan counties, there is a lower tier of district councils varying in number from 2 (Isle of Wight County) to 14 (Essex, Kent, and Lancashire Counties). The correlation between the per capita spending of the districts and its standard deviation in each county area is .47 (significance = .0023). In contrast, the correlation between per capita spending and the coefficient of variation is only -.03. It would be interesting to see how Dolan's results would be altered if the standard deviation measure of dispersion were replaced by the coefficient of variation. However, this change in itself would not be sufficient to validate his empirical analysis.

A third problem is that Dolan's (1990, 37) model of expenditure variation is very crude. He selected only three variables on the basis of a vague reference to unspecified literature. The impact of fragmentation is estimated without controlling for other well-established influences on subnational spending decisions—for example, political ideology and intergovernmental grants. Such omissions may account for the relatively low level of statistical explanation (23%-24%), which is well below that obtained in many studies of local expenditure variation (Boyne 1985). The absence of other relevant explanatory variables also may have biased the estimated coefficients on the measures of fragmentation.

A fourth problem concerns the logic of the policy implications that Dolan drew from his analysis. He (1990, 42) argued that "any degree of consolidation or centralization that is designed to reduce the dispersion of expenditures among the units involved also may reduce the impact on the cost of government for those units." Why, if all units are forced to spend at a similar level, should expenditure fall? Uniformity or diversity of spending per se has no necessary impact on total expenditure. Indeed, the experience of local government reorganization in the United Kingdom in 1974 suggests that there was a leveling up in service standards and spending as a result of the reduction in the number of authorities.

DOLAN'S CONCLUSION WAS UNWARRANTED

In sum, Dolan's evidence is invalid. There are serious flaws in the conceptualization and measurement of fragmentation, the general statistical model, and the logic of the relationship between expenditure dispersion and total spending. The evidence does not warrant the conclusion that there is a positive relationship between local government fragmentation and costs. More widely, Dolan's analysis does not lend support to arguments for local government consolidation nor does it undermine public-choice models of local government systems.

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RESEARCH NOTE

COMMUNITY SOCIAL STATUS, SUBURBAN GROWTH, AND LOCAL GOVERNMENT RESTRICTIONS ON RESIDENTIAL DEVELOPMENT

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Residential development restrictions among Southern California suburban jurisdictions are examined. The purpose of the analysis is to assess the relative importance of various measures of community status, partisanship, and growth as predictors of local policy to regulate residential development. Social status and growth rates appear to account for some of the interjurisdictional variation in policy, although it is clear that excluded factors are also important. Several issues regarding the study of local development policy and what might affect findings from study to study are also addressed.

Those who study local land-use regulation often claim that such policies are inspired primarily by *exclusionary* motivations. Accordingly, cities with higher proportions of affluent residents are assumed to employ zoning policies and other actions to restrict the influx of citizens with lower incomes. Claims are made in this connection that housing prices are inflated, that lower-income housing is curtailed, and that race and class segregation and, hence, access to "the good things of life" are inequitably structured, due in some important way to the manner in which local governments regulate land use (Adang 1964; Babcock and Bosselman 1973; Bergman 1974; Branfman, Cohen, and Trubek 1973; Courant 1976; James and Windsor 1976; Kirby, deLeeuw, and Silverman 1972; Neiman 1980; Sacks and Campbell 1964; Sager 1969; Schoenbrod 1969).

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