

LOCAL GOVERNMENTS AND PROPERTY TAXES

David L. Chicoine and Norman Walzer

The latter 1970s, especially following the passage of Proposition 13 in California, brought renewed interest in property taxes as a method of financing local public services. Discussions about property taxes have focused on burden and, more recently, on various forms of taxpayer relief. Limits on levies or increases in tax base have been imposed in some states. Such limits are met with major opposition by local government officials who claim that the rising costs of local public services are already placing considerable pressure on local resources, and further limitations will only worsen the situation.

In Illinois, as in most states, local public services can be provided through a wide variety of governmental structures. Residents in some regions of the state receive virtually all their services from general purpose governments, whereas, in other areas, special districts are quite important. Since each of these types of government has its special way of obtaining revenues, the amount of property tax collected may be quite different. Moreover, residents desiring additional services may find that certain governmental structures offer greater input into decisions about the level of services provided and, therefore, the amount of revenue that must be raised. Finally, the same aggregate expenditure can be financed from many different revenue sources, one of which is the property tax. Thus, it is not unlikely that two counties with the same aggregate expenditure for services would have very different property tax collections. One of the significant factors accounting for these differences is the governmental structure.

This paper seeks to shed light on the role that governmental structure plays in property tax collections, using 1977 *Census of Governments* data for Illinois counties. No attempt is made to justify or critique certain types of government as being more efficient or preferable to others. Rather, the concern here is whether more complex delivery systems lead to higher property taxes and, if so, how much higher. This paper is organized into two parts. The first section discusses recent changes in government structure, some of the reasons for these changes, and their implications for local finance. The second section reports an empirical analysis of determinants of property tax collections.

David L. Chicoine is an assistant professor of agricultural economics at the University of Illinois at Urbana-Champaign. Norman Walzer is a professor of economics at Western Illinois University in Macomb.

A MULTITUDE OF GOVERNMENTAL TYPES

In 1977, the U.S. Bureau of the Census counted 6,620 units of government in Illinois, of which 5,522 could levy property taxes. This number compares with 5,246 local governments in Pennsylvania, the state with the second largest number, of which 3,282 had property taxing powers. A profile of Illinois governments is provided in Table 1 with a comparison of changes between 1962 and 1977. During this fifteen-year period, two main trends occurred. First, as the result of a massive consolidation effort, there was a 31 percent decrease in the number of school districts, from 1,540 in 1962 to 1,063 in 1977.

Table 1
LOCAL GOVERNMENTS IN ILLINOIS

Types of Governments	1962	1977	Percent Change
Counties	102	102	0.0%
Municipalities	1,251	1,274	1.8
Townships	1,433	1,436	2
School districts	1,540	1,063	-31.0
Special districts	2,126	2,745	29.5
Fire protection	620	770	24.2
Highways	13	23	76.9
Health	18	22	22.2
Hospitals	37	33	-10.8
Housing and urban renewal	107	97	-9.3
Libraries	16	91	468.8
Drainage	852	877	2.9
Flood control	18	33	83.3
Irrigation, water conservation	4	4	0.0
Soil conservation	99	90	-9.1
Parks and recreation	179	321	79.3
Sewerage	76	151	98.7
Water supply	34	68	100.0
Utilities (other than water)	1	10	1000.0
Cemeteries	19	88	363.2
Sewerage and water supply	4	15	275.0
Other	29	52	79.3
Total	6,452	6,620	2.6%

Source: 1977 *Census of Government*, 'Governmental Organization,' vol. 1 no. 1, Table 1

A second, and more important trend for present purposes, was the 29.5 percent increase in the number of special districts, from 2,126 in 1962 to 2,745 in 1977. A brief inspection of the increases, by type of district, reveals major differences in growth patterns. The greatest percentage increase was in utility districts, but, in absolute numbers, the major growth occurred in fire protection and park districts. More specifically, 150 fire protection districts and 142 park and recreation districts were added. Sewerage districts and library districts also increased markedly.

Statewide, the net increase in number of governments during the fifteen-year period ending in 1977 was only 2.6 percent, because the decrease in school districts was largely offset by the increase in special districts. Had the reduction in school districts not occurred, the growth in number of governments would have been nearly 30 percent.

Comparing numbers of governments can be misleading, since larger states usually have more units. A clearer picture is obtained by comparing Illinois with other states using ratio of governments to population. In Illinois, for instance, there was one government for each 1,691 residents. Rather than having the most governments per resident, Illinois ranks about seventeenth among states. Not unexpectedly, rural states have more government fragmentation. North Dakota, for example, has one government for each 235 residents. At the other extreme, Alaska reported one government for each 45,684 residents. Overall, the national average was one government for each 2,668 residents based on total number of governments, including those without property taxing powers.

Of course, statewide averages of government ratios do not capture intrastate differences. Cook County contained one government for each 9,692 residents while Iroquois County, in eastern Illinois, contained one government for every 191 residents. In some instances, multiple districts overlap a city. Thus, Springfield residents are served by fifteen independent or semi-independent governments. Residents in one Chicago suburb of 13,000 are served by sixteen separate governments, including multiple school districts and townships.

Reasons for Special Districts

Why has there been such a proliferation in the number of special districts in Illinois during the past fifteen years? One explanation commonly proposed in the past suggested that it is due to an attempt to escape state-imposed tax and debt limits. When general purpose governments reach taxing and debt limits, a new unit of government with its own taxing limits is created.

ILLINOIS GOVERNMENT RESEARCH

Institute of Government and Public Affairs

University of Illinois

1201 West Nevada Street, Urbana, Illinois 61801

The Institute of Government and Public Affairs of the University of Illinois is committed to research, service, and teaching in the area of governmental affairs. As part of this mission the institute publishes on an occasional basis *Illinois Government Research*. Each issue brings to the attention of concerned citizens and officials some aspect of public policy research. Although most items are written by institute staff members, manuscripts by other authors will be considered for publication. In each case the views expressed are solely the responsibility of the author and do not reflect institute policy or imply institute endorsement.

Providing services through special districts offers several advantages to certain residents. First, those interested in a specific service do not have to compete with other services for budgetary consideration. The effective limit on services provided is the amount of money that can be collected from property taxes or other revenue sources.

Second, a special district providing a specific service allows interested residents to monitor more closely the services provided and to tailor programs to their liking. Interested residents can serve on the governing board with a relatively small commitment of time and effort but with a significant impact on services provided. Such service also offers residents an opportunity to participate in government, gain prestige in the community, and perhaps advance their careers in the private sector. Businesses value participation by their employees in public affairs and often count these activities toward promotion.

Third, special districts permit extension of services beyond the boundaries of general purpose governments. Rural residents desiring fire protection can obtain services through a fire protection district that includes a municipality and the surrounding hinterland. The same is true for sewerage treatment and disposal. In some instances, particularly fire protection, a special district is virtually the only way rural residents can finance services.

Finally, there may be some services with high fixed costs which can only be provided effectively by reaching a certain scale. Reaching this output size may require provision of services to residents outside the limits of a general purpose government. In the past, governments experienced difficulty initiating cooperative arrangements, and sometimes special authorizing legislation was required to implement these agreements. In these cases, special districts offer decided advantages. Along the same lines, a claim can be made that inefficiency in the provision of services is likely with smaller, more numerous governments because budgets are not large enough to pay well-qualified employees. Also, cost savings from large purchases may be less likely. Because of data limitations, however, research findings on this efficiency question have been mixed.

If single function districts have the described advantages, why have there been attempts to limit their use or consolidate them? There are several situations in which special districts, particularly those overlapping other governments, experience limitations. First, as a city increases in population size, its needs for services change. Officials in a fire protection district that included a small municipality when it was created, may find that twenty years later city residents desire a full-service fire department although rural residents do not.

Second, a city may grow through annexations in such a way that it is served not only by its own municipal fire department but also by one or more special fire protection districts. The outcome of this scenario is confusion among residents about who provides which services and to whom. Cost savings may be possible from a better sharing of equipment and manpower in these instances.

There is also a view that a large number of small independent governments makes voters less able to identify which government is causing tax increases and, therefore, less likely to hold public officials accountable. For instance, when small governments each levy a property tax, the tax bill contains a multitude of tax rates; and, until recently, taxpayers could not easily determine which districts they were supporting. Moreover, since each special purpose district represents a small part of the aggregate tax bill, local officials are less reluctant to increase their levies.

SPECIAL DISTRICTS AND PROPERTY TAXES

In recent years, the property taxes collected by special districts have been increasing more rapidly than those collected by other governments. A comparison of growth in aggregate property taxes collected by type of government between 1974 and 1976, for example, shows that taxes collected by special districts increased 24.3 percent compared with 11.4 percent for cities, 13.6 percent for counties, 15.1 percent for school districts, and 22.4 percent for townships (including road districts).

Although the rate of increase for special districts may have been greater than other governments, they remain a relatively minor portion of the property tax collections statewide. In 1977, for instance, special districts (excluding school districts) accounted for only 11.5 percent of property tax collections in Illinois. Over the past twenty years, the proportion of taxes collected by special districts has increased several percentage points.

To analyze the impact of governmental structure on the collection of these property taxes, a least squares regression equation was estimated using 1977 *Census of Governments* data for all Illinois counties except Cook.

Based on the above discussion, it is now possible to suggest several reasons why numbers of governments and governmental structure might affect per capita property tax collections. First is the limited number of revenue sources available to certain government types. School districts and townships depend heavily on property taxes, while counties and municipalities are less reliant on this revenue source. Cities, counties, and townships have access to some intergovernmental revenue sources which special districts do not. For the same aggregate expenditure, one might expect areas with more special districts to have higher property tax collections.

Secondly, if special districts in Illinois have been used to circumvent property tax limitations, then areas with more special districts could be expected to collect more property taxes. Of course, in this case, the higher tax collections could simply reflect additional services. About the only practical way to adjust for services is to control for aggregate per capita expenditures but this is only a gross estimate of services provided.

Finally, if it is true that more governments levying property taxes confuse residents and lead to less accountability, then one could find areas with a larger number of governments having higher property tax collections.

To determine the impact of number of governments on per capita property taxes collected in Illinois counties, the following equation was estimated

$$Ptax = a + b_1INC + b_2IGR + b_3EXP + b_4MFG + b_5GOV + b_6AGE + b_7SCH + u.$$

where:

Ptax = Per capita aggregate 1977 property tax receipts in Illinois counties

INC = Per capita income in 1977

IGR = Per capita intergovernmental revenues

EXP = Aggregate per capita expenditures by local governments in the county

MFG = Percent of county employment in manufacturing

GOV = Number of taxing units per 10,000 residents in the county

AGE = Percent of residents 65 years and older

SCH = Percent of population enrolled in public schools, 1977

The rationale for each variable in the equation is provided as follows.

- Per capita income was included to adjust for wealth in a county. Residents in counties with higher per capita incomes are better able, and may be more willing, to pay property taxes to support desired services. For high-income families, property taxes may represent a more desirable method of financing services since homes with high market value are known to be under-assessed. Also, property taxes are deductible against federal income taxes. Thus, one could easily find a positive association between per capita property tax receipts and income levels.*
- Percent of people 65 years and older was included to test whether aged residents exert a limiting effect on property taxes. It is commonly thought that retirees are particularly hard hit by property taxes (although circuit breakers have helped recently) and tend to resist tax increases. Aged residents also do not need certain local services, such as schools, which are heavily financed by property taxes. Thus, one would expect a negative association between property tax collections and the percentage of aged residents.
- The number of elementary and secondary school children enrolled in public schools, as a percent of the county population, was included to adjust between counties for demands placed on schools. Since schools receive almost half of their revenues from property taxes and account for nearly 60 percent of the property taxes collected statewide, one would expect counties with more students to have higher property tax collections.
- Comparisons of property tax collections across counties necessitate adjustments for services provided. If no attempt is made to correct for differences in services, then higher property tax collections may simply reflect more services. Since services are nearly impossible to measure directly, per capita expenditures were included as a proxy. For present purposes, the ratio of local public employment to population was used to replace per capita expenditures with similar results.
- The number of taxing units per 10,000 residents was included to determine whether the number of governments providing services makes a difference with respect to property tax collections. Using the arguments outlined above, one would expect to find a positive association between number of governments and per capita property tax collections.
- Per capita intergovernmental aid was included to test the impact of this revenue source on property taxes collected. One might hypothesize that additional intergovernmental revenues allow local officials to lessen their reliance on property taxes, especially when local taxpayers resist these taxes. A priori, at least part of additional intergovernmental support would be expected to be used for property tax relief and a negative relationship between this variable and property tax collections is anticipated.
- For citizens and government officials alike, the opportunity to transfer a portion of the property tax burden is very attractive. Thus, counties with relatively more of their property tax base in commercial property might be expected to have higher per capita property tax collections. Unfortunately, detailed information on assessed valuation by class of property is not available in Illinois so that a direct test of this proposition is nearly

* A more complete examination of the relationship between income and property taxes in Illinois was recently reported by A. James Heins in *Illinois Government Research*, 51, available from the Institute of Government and Public Affairs

Table 2
DETERMINANTS OF PROPERTY TAX COLLECTIONS

Variable	Per Capita Collections	
	Regression Coefficient	Beta
Per capita income	.051* (3.56)	.32
Intergovernmental aid	-.354* (-3.39)	-.29
Per capita expenditures	.320* (5.37)	.37
Percent manufacturing employment	.312 (.65)	.04
Taxing units per 10,000 population	1.864* (2.82)	.24
Percent aged	-6.961* (-2.53)	-.23
Percent in public schools	519.760* (3.01)	.19

* Significant at the 1 percent level

Constant	-154.94	S.E.E.	58.01
R ² adjusted	.65	F-ratio	27.95

impossible. An indirect approach was attempted using employment distribution as a proxy for distribution of assessed valuation. Percentage of employment in manufacturing was included in the equation to adjust for tax base differences, but as will be shown below, this measure may be too simplistic to be sensitive to variations in property tax collections.

The results of the regression analysis are provided in Table 2. The signs are as hypothesized, and all of the coefficients, except for percent manufacturing, are significant. Overall, the independent variables accounted for approximately two-thirds of the variation in property tax collections among counties.

There are three particularly interesting findings in Table 2. First is the importance of intergovernmental assistance and its relationship to property tax collections. In Illinois, counties that receive \$1 per capita more than the average in intergovernmental revenues collected an average of 35 cents per capita less from property taxes. It would appear that perhaps as much as one-third of the intergovernmental revenues ultimately find their way into property tax relief. This finding holds when the aggregate expenditures in the county are considered.

A second finding concerns the importance of the elderly. Counties with one percentage point above the average in the percent of residents 65 years and older collected

an average of \$6.96 per resident less than other counties. With available data, it is not possible to determine whether aged residents desire fewer services or oppose property taxes in principle. However, the negative association holds even after aggregate expenditures are considered.

A third relationship, and the most interesting for the present discussion, is between property taxes and number of taxing units. A significant and positive relationship was found. Counties with one taxing unit per 10,000 residents above the mean collected \$1.86 more per resident in property taxes. Thus, more governments mean higher property tax collections when the aggregate expenditure by governments in the county is the same. The magnitude of the coefficient, however, is relatively small.

The most likely explanation for this finding is that counties with a larger number of governments include more single function districts which have less access to intergovernmental revenues and nonproperty tax sources. The positive relationship also supports the view that special districts were established for the purpose of circumventing property tax limits. Which effect is the more important cannot be determined directly with existing data.

One must take care in attaching policy interpretations to this finding. Property taxes represent one method of financing services. If the property tax happens to be unpopular, some will argue that additional services will be more difficult to finance, and growth in government is constrained. Even though property taxes have been criticized heavily in the past, they continue to represent the most significant revenue source for local governments.

Readers should not interpret a correlation between more governments and higher property tax collections as evidence of inefficiency in the provision of services. Nothing has been said in this analysis about the per unit cost of providing services. To comment on the efficiency question would require more detailed data on services.

CONCLUSION

Now that we have listed the things that the findings do not show, what can we list that can be learned from this analysis? The most revealing finding is the fact that governmental structures (or at least numbers of governments) do make a difference in property tax collections. Residents have a choice regarding the types of taxes they wish to pay and the services they desire. By moving to areas with more taxing units, residents are likely to find higher property taxes for similar expenditures.

Understanding the impact of governmental structure on local public finance is important, given present efforts by state governments to impose controls on local expenditures and property taxes. In the past, adding new governments served as a method for bypassing property tax limitations on local governments. The findings presented here suggest that those attempts may have worked



INSTITUTE OF GOVERNMENT
AND PUBLIC AFFAIRS
UNIVERSITY OF ILLINOIS

1201 WEST NEVADA STREET · URBANA, ILLINOIS 61801