

IMPACT OF TAX BASE EQUILIZATION

ON

LOCAL DEVELOPMENT PLANNING

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### ABSTRACT

State tax base equalization programs have significantly affected local development planning and decisionmaking. Residential, commercial and industrial projects no longer have differing fiscal impacts on communities. Under extreme conditions of complete tax base neutrality, property tax rates *after* development are no different than property tax rates *before* development. Communities can no longer get *rich* on tax base intensive developments. While tax base equalization programs do help eliminate the fiscal disparities among municipalities which arise due to differing development patterns, these programs also have unintended effects which change the context within which public decisions concerning development are made. These changes include increased budget uncertainty, frozen local tax rates, and changes to the public fiscal incentives for development.

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Under the traditional property tax system, the fiscal disparities which exist among communities in a region can be largely explained by the difference in the pattern of local development taken by each of the communities. Central city decline and suburban build-up, heightened by the increased dependent population support role of the central city, has led to the obvious fiscal gap between these two types of urban government. Within the suburban development pattern which has emerged in the U.S., "new industrial" versus "bedroom" development has made a difference in the fiscal disparities among municipalities. "Tax island," "fiscal zoning" and "balkanization" are all now part of the standard jargon for local development planners and public decisionmakers.

In recent years, new steps have been taken by states to remove the fiscal disparities which result among communities because of differing local development patterns. Two approaches have been tried by states, although only one approach has received significant attention in the planning literature. The approach which has previously been examined is that of tax base *sharing*, most notably recognized in the Minnesota Municipal Disparities Act (Lyall 1975; Reschovsky and Knaff 1977; Fischel 1976; and Bahl and Puryear 1976). Under this approach, benefits from local growth are shared *directly* with other taxing jurisdictions

in a region by allocating some portion of local tax base growth to a common tax base "pool" for use by all jurisdictions in the region.

The second approach, which has not been treated in the planning literature, is that of tax base *equalization*.<sup>1</sup> Under this approach, direct tax revenue benefits (property tax revenues) from development remain solely in the local community and are *not* shared directly with other communities. Other jurisdictions do *indirectly* benefit from regional growth, however, as state equalizing aids are shifted from growing places to non-growing places.

A shift by states toward increased use of equalizing aids would not be surprising. One factor behind this potential shift is the fact that states find equalizing aid systems a convenient method of financing public education in accordance with the school finance reform principles spelled out in the *Serrano V. Priest* court decision. Gatti and Tashman, in fact, have suggested that equalizing school aids will be the prominent mechanism for financing public education in the post-Serrano era (1976, p. 461). States may secondly consider increased use of tax base equalizing aids as they continue to provide a larger portion of local government revenues. State aids to local governments as a percentage of local general revenues have continually declined (Maxwell and Aronson 1977, p. 85). With increasing state provided local government revenues, states have a unique opportunity to offset previous local fiscal disparities which materialized due to good or bad fortune, basic demographic shifts, and overt fiscal zoning (Riew 1967; and Curran 1973).

Tax base equalization programs alter local development planning and decisionmaking because of their impact on the fiscal returns from development. Under extreme circumstances, tax base equalization produces a set of conditions known as tax base *neutrality*. These conditions exist when additions to the local tax base leave the local property tax rate unaffected. That is, *changes* in the local property tax base are *neutral* with respect to changes in the local property tax rate. For example, commercial developments, which once produced fiscal surpluses for communities because of their typically low cost requirements per dollar of new base (Muller 1975, p. 42), will not lower municipal tax rates or allow increased public spending at old rates under conditions of tax base neutrality.

The changes in local development planning and decisionmaking which take place because of tax base equalization primarily involve changes in local incentives for development and changes in conventional planning practices concerning evaluation of proposed local developments. The incentive changes include the removal of fiscal "bribes" from non-desirable developments--such as heavy polluting industries--and the regional subsidization of high cost local developments. The planning practices affected by tax base equalization include fiscal impact analysis, capital improvements programming, general operations budgeting, and other processes which require revenue estimating. The magnitude of these changes on both planning and decisionmaking and the increased public attention being paid tax base equalization programs suggest that practicing development planners should become familiar with the principles and implications of tax base equalization.

TAX BASE EQUALIZATION: CONCEPT AND DESIGN

Tax base equalization is a concept whereby every taxing jurisdiction of a particular type (e.g., schools) has access to equal taxable base per unit of spending, regardless of the tax base actually existing within the taxing jurisdiction (Treacy and Frueh 1974). For example, under equalized school aids, a state government guarantees that each pupil has the same level of property tax base supporting his or her education as other students, regardless of whether the student lives in an economically depressed area or in a wealthy community.

The actual mechanics of tax base equalization programs are, in general, somewhat complex and vary in detail from program to program. Wisconsin's set of tax base equalizing programs, for example, is composed primarily of a state school aids formula, a system of shared state taxes with localities and counties, and the state relief of local property taxes. For purposes of the present discussion, a simplified version of one of the three programs, the shared tax program, is presented below to illustrate how equalizing state aid payments to particular communities are determined and influenced by local development.

$$\begin{aligned}
 (1) \quad & \text{LOCAL REVENUES}_i \quad (x) \quad \left[ 1 - \frac{\text{LOCAL TAX BASE}_i}{\text{STATE GUARANTEED TAX BASE}} \right] = \text{UNADJUSTED STATE PAYMENT}_i \\
 (2) \quad & \text{UNADJUSTED STATE PAYMENT}_i \quad (x) \quad \frac{\text{TOTAL \$ AMOUNT TO BE DISTRIBUTED STATEWIDE}}{\sum_{i=1}^n \text{UNADJUSTED STATE PAYMENT}_i} = \text{ACTUAL STATE PAYMENT}_i
 \end{aligned}$$

where:  $i$  is an individual municipality or county and  $n$  is the total number of municipalities and counties in the state.

Local governments, under the above formula, are rewarded for spending. As REVENUES from local government activity increase (which corresponds to increased local spending), state aids increase. The second term (in brackets) in the first equation ensures that relatively poor property value places receive more state aid than more wealthy (property value) places. As LOCAL TAX BASE increases, state aids go down. In fact, if local property values exceed the legislatively set guarantee, Equation 1 becomes negative and the municipality receives no state aid.<sup>4</sup> If one added up the payments entitled to all jurisdictions in the state on the basis of Equation 1, the funds needed to make such payments would exceed the amount set aside to finance the shared tax program. Thus, the second equation reduces each jurisdiction's actual payment down to its share of the funds available.

Local development, such as industrial, commercial, or residential projects, affect a municipality's state aid payment in two primary ways. If a new development increases the amount of public services or infrastructure delivered by a municipality, local expenditures and subsequent LOCAL REVENUES increase, thereby increasing state aid payments to the municipality. On the other hand, increases in local tax base brought about by new development increase the municipality's LOCAL TAX BASE relative to the STATE GUARANTEED TAX BASE and serve to diminish aids received from the state.<sup>5</sup> Whether or not local developments increase or decrease state equalizing aids to a community depends upon the *net*

influence of the TAX BASE and spending (REVENUES) changes induced by  
the development.<sup>6</sup>

#### FISCAL IMPACTS OF DEVELOPMENT

Fiscal impacts of development ultimately reduce to the impact of development on the local property tax rate. As Rosner and Barrows have suggested, changes in property tax *rates* are the "signals and incentives" decisionmakers most often use in making choices about future local development patterns (1973, p. 288).

Without tax base equalizing aids, the fiscal impact of local development--measured in changes in the local property tax rate--is a function of the new municipal costs and tax base associated with a development in relation to the existing (predevelopment) local levy and tax base. Table 1 shows a set of municipal revenue and expenditure accounts in the absence of tax base equalizing policies whereby the pre- and postdevelopment impacts of different types of development can be contrasted. For example, suppose initially that the predevelopment levy for municipal purposes in a particular community is \$2 million and that the total taxable property base is \$100 million. Dividing the base into the levy produces the tax rate for municipal services (not including school, sanitary districts, etc. in this example) of 20 mills (.0200) or \$20 per \$1,000 of property value in the municipality. The \$2 million raised by property taxes and the \$1 million collected from non-property tax sources would meet the \$3 million spent by the municipality during the year. As shown in Example A of Table 1, if a new development were to occur in the municipality which required \$50,000



Table 1. Municipal Accounts: Without Tax Base Neutrality.

	EXPENDITURES	REVENUES			
		PROPERTY TAX		OTHER REVENUES	
		TAX BASE	RATE		REVENUES
<u>EXAMPLE A: cost intensive development</u>					
predevelopment total	\$ 3.0 million	\$ 100 million	.0200	\$ 2.0 million	\$ 1.0 million
development related	\$ 50,000	\$ 2 million	.0250	\$ 50,000	0
post-development total	\$ 3.05 million	\$ 102 million	.0201	\$ 2.05 million	\$ 1.0 million
<u>EXAMPLE B: low cost development</u>					
predevelopment total	\$ 3.0 million	\$ 100 million	.0200	\$ 2.0 million	\$ 1.0 million
development related	\$ 20,000	\$ 2 million	.0100	\$ 20,000	0
post-development total	\$ 3.02 million	\$ 102 million	.0198	\$ 2.02 million	\$ 1.0 million

Table 2. Municipal Accounts: With Complete Tax Base Neutrality.

	EXPENDITURES	REVENUES					
		PROPERTY TAX		REVENUES	TAX BASE EQUALIZING AIDS	OTHER REVENUES	
		TAX BASE	RATE				
predevelopment total	\$ 3.0 million	\$ 100 million	.0200	\$ 2.0 million	\$ 500,000	\$ 500,000	
development related	\$ 50,000	\$ 2 million	.0250	\$ 50,000	0	0	
post- development total	\$ 3.05 million	\$ 102 million	.0200	\$ 2.04 million	\$ 510,000	\$ 500,000	

in additional city services and which provided \$2 million in new base, the *implicit* tax rate for the development would be 25 mills (\$.05 million + \$102 million, or .0250). The new municipal costs associated with the development would be *subsidized* by existing property owners in the municipality since the implicit development rate is higher than the predevelopment property tax rate. That is, all other things equal, the new municipal tax rate for all property owners in the municipality *after* development would rise from 20.0 to 20.1 mills (\$2.05 million + \$102 million).

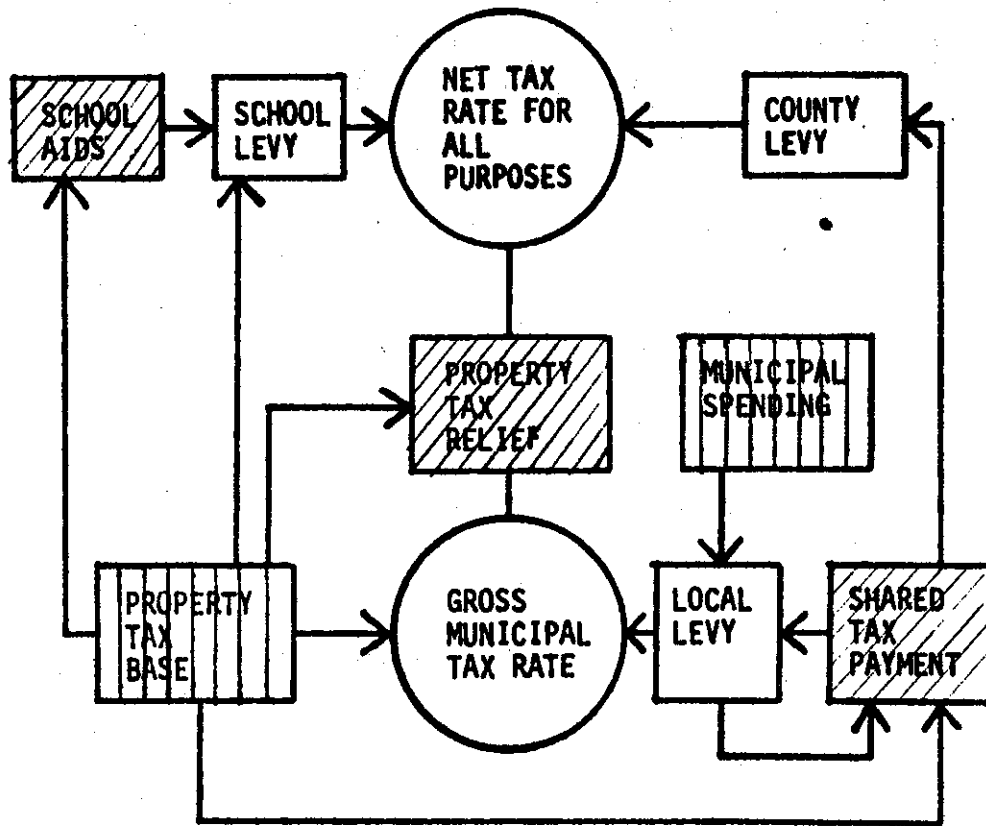
If, on the other hand as reflected in Example B, costs associated with the development had increased municipal expenditures by only \$20,000, the implicit rate for the development would be only 10 mills and the municipal rate after development would fall to 19.8 mills (\$2.02 million + \$102 million). The new development would lessen the tax burden on existing property owners by subsidizing their tax bills.

Given the fiscal gains or losses which can be had by different types of development, fiscal zoning becomes a logical response on the part of local governments. New developments which increase tax base relative to the average spending pattern for the community are desirable from the local fiscal point of view and developments which are expenditure intensive relative to the new property tax base they provide are not as desirable, *ceteris paribus*.

In contrast to this, tax base neutrality has changed the fiscal impact of a development upon a municipality. Table 2 shows an expanded set of accounts for a municipality operating under a set of state tax base equalizing policies which are completely neutral with respect to

tax base changes. Before development, the municipality is spending \$3.0 million as before, although the \$1.0 million in outside revenues that the municipality receives is coming from tax base equalizing and non-equalizing aids in this example, rather than non-equalizing aids alone, as in the previous example. A new development with the same expenditure requirements and new tax base as Example A in Table 1 does *not* raise the local tax rate under tax base neutrality. The municipal spending caused by the local development beyond that *normally* required by any dollar of tax base in the municipality is subsidized by increased state equalizing aids, rather than by existing property owners as before. Property tax collections go up by the amount of the new base times the old rate (or \$40,000) and the remainder of new municipal expenditures is made up by increased state equalizing aids (\$10,000). The local tax rate is the same after development as it was before development, even though the new development in this example was expenditure intensive relative to previous spending patterns in the community. On the other hand, developments which normally (without tax base neutrality) would have lowered the post-development tax rate because of their low spending requirements per dollar of added base would be offset by decreased equalizing aids to the municipality. Tax base equalizing aid payments to a municipality increase or decrease depending upon the relative positive influence of increased local spending or tax rate on aids and the relative negative influence of increased tax base on aids, per Equation 1.

Figure 1. Simplified Model of Wisconsin Local Government Finance.



MAJOR DETERMINANTS OF LOCAL PROPERTY TAX RATES



MAJOR EQUALIZING AID PAYMENTS

### COMPUTER SIMULATION

A computer simulation model of the Wisconsin local government finance system has been developed by the Wisconsin Department of Revenue as a method of examining the impacts of development on communities over time. The major features of the model are summarized in Figure 1.<sup>7</sup> Equalizing aids affect the net tax rate for all purposes in a municipality both indirectly, via *aid payments* to the municipality, county, and school district, and directly, via *property tax relief*. Local development projects alter the net tax rate on all property in the municipality by changing the municipality's property tax base and municipal spending and by changing the series of equalizing aids.

Simulations were run on 90 Wisconsin municipalities to determine the impact over a four year period of different prototypical local developments on net (after aids) tax rates for all purposes, including schools, county, etc. In each municipality three independent developments were simulated, each involving a 5 percent growth in tax base and one of three levels of increase in municipal spending. The spending changes reflected various degrees of spending-to-base intensities of development, ranging from almost no new local spending to extremely expenditure intensive development. The tax base and spending change combinations of the three development prototypes are shown in Table 3. Municipal population and school enrollments--both of which affect state aid payments--were left unaltered so that any changes in local tax rates could be assigned solely to changes in tax base and local spending.

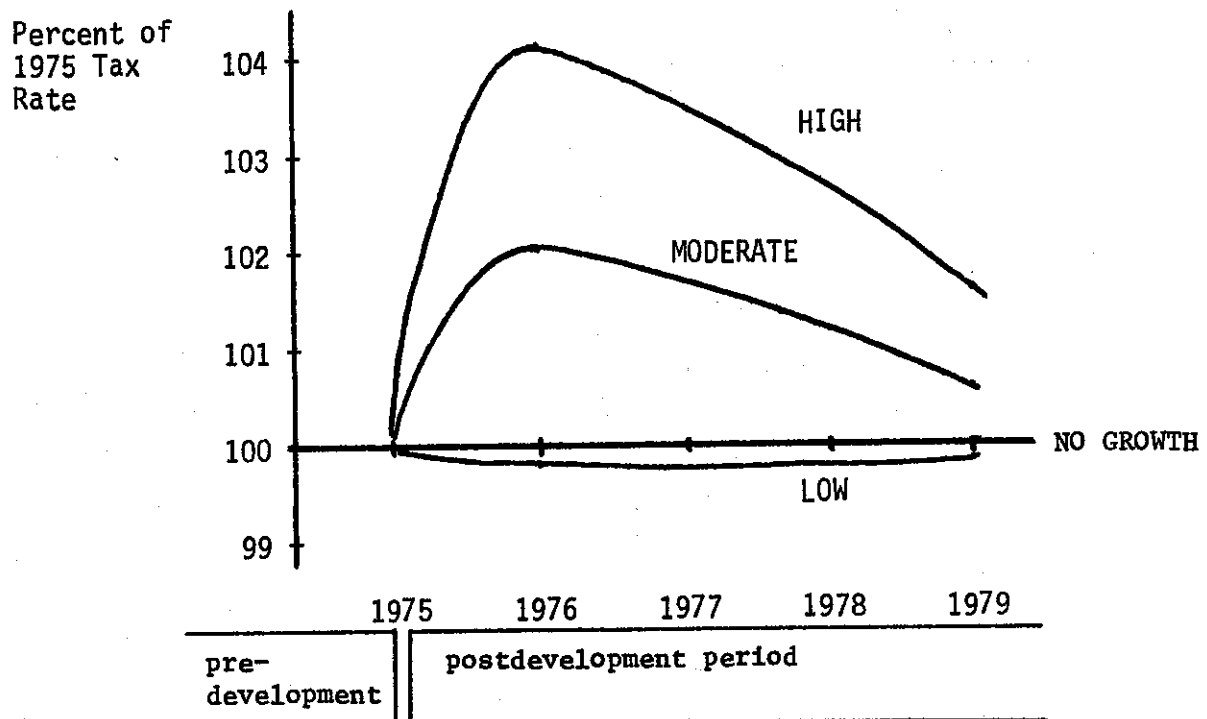
Table 3. Tax Base and Spending Changes for Computer Simulations.

PROTOTYPE	BASE CHANGE	SPENDING CHANGE
LOW COST	5 % of 1975 base	1/10 of average municipal spending per \$ of base
MODERATE COST	5 % of 1975 base	5 times average municipal spending per \$ of base
HIGH COST	5 % of 1975 base	10 times average municipal spending per \$ of base
NO GROWTH	tax base unchanged from 1975	spending unchanged from 1975

The model was also run for the 90 municipalities *without* additions of new tax base or spending. This prototype, called the "no growth" prototype, represented the fiscal condition the municipalities would be in over time assuming--by choice or by chance--that they had no local development after 1975. As would be expected, the no growth prototype left average local tax rates over time virtually unchanged from their predevelopment levels.

Figure 2 shows the average fiscal impact in the 90 Wisconsin communities of the three different types of development. Fiscal impact here is represented by the percentage change from the predevelopment (1975) municipal tax rate (for all purposes) of the net (after aids) municipal tax rate for the four years following development.

Figure 2. Average Fiscal Impacts of Simulated Development Types:  
Percentage Change in Net (After Aids) Tax Rate.



In the short-run, the Wisconsin system of equalizing aids is not completely neutral with respect to changes in local spending or tax base. Both the *expenditure intensive* (vis-a-vis tax base) MODERATE and HIGH COST developments raise the local tax rate in the years immediately following development as would happen without equalizing aids. The *tax base intensive* (vis-a-vis expenditure) LOW COST development lowers the net tax rate slightly in the short-run.

In the long-run, however, it appears that the Wisconsin system of equalizing aids does strongly tend toward tax base neutrality. As changes in local spending and new tax base are fully integrated into the major aid formulas, local tax rates begin to converge to the level they would normally have been *without* development. Although



in the extreme expenditure intensive (HIGH COST) development prototype the local tax rate has not completely returned to predevelopment levels by the end of the four years following development, the trend is clearly toward neutralizing the effect of new spending and tax base on the local tax rate.

#### IMPLICATION FOR FISCAL IMPACT ANALYSIS

In considering proposed changes to local land uses, planners and local decisionmakers alike turn to fiscal impact analysis for help in determining the fiscal wisdom of such decisions. Broadly defined, fiscal impact analysis is the estimation of expected public costs and revenues induced by local growth, for the jurisdiction in which growth is occurring (Burchell and Listokin 1978, p. 1; and Marcou and Tischler 1978).

The *complicating* impact of intergovernmental aids in general on fiscal impact analysis has been noted in the literature (Muller 1975; and Burchell and Listokin 1978, Chapter 10). Are tax base equalization policies a further step in this direction? In one sense they are. Understanding the workings of complex state aid formulas is significantly more difficult than understanding the basic property tax calculation for a municipality. It might be noted, for instance, that the Wisconsin local government finance model discussed earlier has over 100 calculation points in it for determining the net local tax rate for each year.

On the other hand, under complete tax base neutrality, long-run fiscal impacts of local development are more easy to assess than the situation where no equalizing aids exist. For example, in the Wis-

consin context, does it matter, from a fiscal point of view, whether a development is industrial or residential in nature? In the long-run, no. Will the attraction of a major industry allow a municipality to spend more on parks and streets in subsequent years as the municipality "cashes in" on its tax base growth? With tax base neutrality, economic growth does not provide any more fiscal freedom than without the attraction of new industry. Will the fiscal impacts of a new sewer system place one municipality at a comparative disadvantage in terms of tax rate vis-a-vis neighboring communities? Under complete tax base neutrality, relative fiscal positions will not change. In general, with tax base neutrality, fiscal impact analysis can assume that costly developments are subsidized by state equalizing aids and that inexpensive developments cause municipalities and school districts, etc. to lose state aids. In the long-run, fiscal impact analysis can assume that local tax rates will be the same after development as they were before development.

#### IMPLICATION FOR LOCAL DEVELOPMENT DECISIONS

Tax base neutrality has not only affected the actual fiscal impact of local development and the analysis thereof, but has also changed the context within which public decisions concerning local development are made. Four major changes have become apparent in the Wisconsin context.

1. Budgetary uncertainty. Without equalizing aids, a municipality's total annual revenue is determined largely by local decisions concerning spending and tax base and by the distribution pattern of major state and federal non-equalizing grant programs. With equalizing

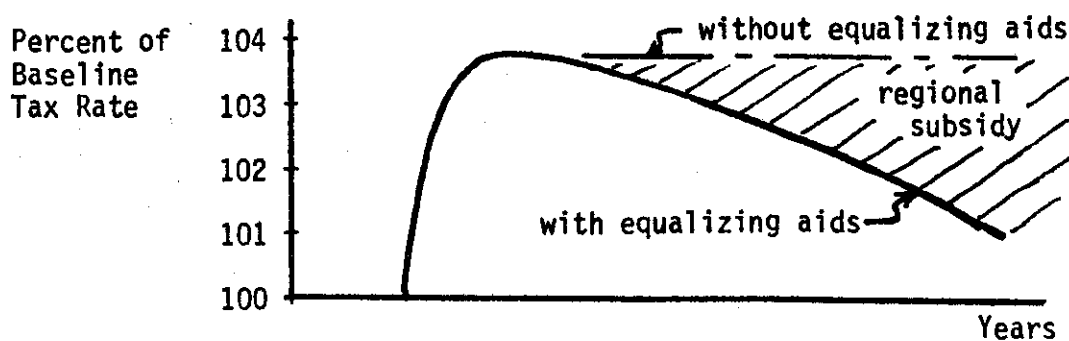
aids, total annual revenues are affected by these same factors *plus* the tax base and spending habit changes of *all* other municipalities in the state. This can be seen by examining previous Equations 1 and 2. A municipality may experience no new tax base or spending during a year (implying no local development) and would thus be entitled to the same UNADJUSTED STATE PAYMENT as the previous year. But, if tax base growth and increased spending in the rest of the state are such that the SUM of all UNADJUSTED STATE PAYMENTS (Equation 2) increases, for example, the ACTUAL STATE PAYMENT to the municipality would decrease. This amounts to a negative fiscal impact from the development decisions of other units of government. In setting local budgets, therefore, one must project own source revenues, continuation of existing non-own source, non-equalizing aid payments, and the impact other jurisdictions' development decisions have had on the local municipality's equalizing aids payment.

2. Frozen tax rates. As diagramed in Figure 1, the outcome of a set of tax base equalizing policies is to freeze municipalities at their pre-equalization tax rates. Local rates may go up or down in the short-run following development, but, in the long-run rates return to what they would have been without development. Thus, high rate areas (such as central cities) remain high and low rate areas remain low. This occurs, however, only when the aid formulas are undisturbed by other overriding policies. Aid formulas can be written such that certain type communities receive more aid than others, all other things equal. This does mean, though, that explicit state policy is needed under an equalizing aid system if municipal tax rates by type of city are to converge over time.

3. Removes fiscal incentives for development. Prior to tax base equalizing policies, undesirable activities--e.g., heavy polluting activities--could "bribe" local governments by offering large tax base additions. Under complete tax base neutrality this is no longer the case. Tax base gains are offset by decreasing state aid payments--thus, undesirable developments remain undesirable. There is, in fact, some evidence in Wisconsin to suggest that local development decisions have been altered because of the existence of tax base neutrality.<sup>10</sup>

4. Regional subsidization of local development. On the other hand, activities which were previously fiscally undesirable but appealing in other respects--such as employment generation--are subsidized, under tax base neutrality, by other places in the state. Figure 3 shows how tax rates from costly development would appear with and without equalizing aids. The shaded area represents the subsidy other areas implicitly pay the growing municipality through the redistribution of equalizing aids among municipalities. Thus, municipalities are free to enter into more expensive development than they normally would, since, in subsequent years, state aids will begin to increase in response to costly development.

Figure 3. Tax Rate Changes Due to Development.



### CONCLUSION

The implications of tax base equalizing policies for planners are significant. Both the rules of the game--the conventional wisdom concerning development--and the major analytical tools used by planners to assess proposed local developments have been altered. Under complete tax base neutrality, there are no long-run fiscal benefits from local development in terms of lowered tax rates or increased services at old tax rates.

Is this a boon or a bair to local units of government? This is still being debated in Wisconsin. What has been provided under tax base neutrality is a chance--as should be the case as so often argued by planners--to make local development decisions on the basis of non-fiscal considerations, such as economic impact in new jobs and income, environmental impacts, local preferences, etc.

Tax base neutrality is a reality in Wisconsin and the prospects for expanded use of tax base equalization programs nationally is evident. Like tax base *sharing*, tax base *equalization* programs offer a unique opportunity for states to address the fiscal disparities which have plagued their municipalities for decades. But the changes to the world as we know it are significant. The challenge for local development planners is to incorporate these considerations into their own conventional wisdom, and to then communicate these principles and implications clearly to those who must ultimately make local development decisions.

## NOTES

1. "Tax base equalization" should not be confused with "equalized property values." Equalized property values are locally *assessed* values placed at a common and comparable value. Equalized property values are used to apportion taxes from different taxing jurisdictions over a tax base which has been adjusted, or equalized, for different local assessment practices. Tax base equalization, as discussed in this paper, is the provision of equal tax base for the support of equal levels of spending for certain public services.
2. Nationally, all aids from the state, not just equalizing aids, represent slightly more than a third of all revenues in a typical year (Burchell and Listokin 1978, p. 155). Thus, Wisconsin sends to local governments in equalizing aids what most states send in total aids.
3. Description of the Wisconsin school aids formula can be found in Rosner and Barrows 1977. The Wisconsin general property tax relief formula is very similar to the shared tax formula presented, except that relative tax effort is used in place of local revenue collections.
4. Under Wisconsin law, negative values in the shared tax formula are treated as zero, signifying that zero aid will be received from the state, rather than that aid should be sent from the municipality to the state. An earlier version of the state school finance formula allowed negative values, meaning that high value per student school districts were sending aids to the state for use by poorer valued school districts. This practice of "negative" school aids was later ruled unconstitutional and has since been replaced with

a "zero" aids system.

5. In most cases tax base is calculated on a per capita or per student basis. Thus, the important dimension to local development is whether or not per capita property values increase relative to the per capita guarantee.
6. A third impact of local development is on the SUM of UNADJUSTED STATE PAYMENTS for the entire state. Since the impact of one community's development on total state property values and municipal spending is slight, this effect at the municipal level can be considered negligible.
7. A schematic of the complete Wisconsin local government finance model is available upon request from the author.
8. All three major equalizing aid programs in Wisconsin require three years to completely account for the effect of new development on aid payments.
9. The impact of one municipality's development on the SUM of the UNADJUSTED STATE PAYMENTS may be negligible (see footnote 6) while the sum of all such actions for the state as a whole may be considerable.
10. Examples of this evidence include municipal refusal to process needed local rezoning for an industrial concern and the trimming back of municipal industrial recruitment activities and budgets.

## REFERENCES

- Bahl, R., and Puryear, D. 1976. Regional tax base sharing: possibilities and implications. National Tax Journal XXIX: 329-335.
- Burchell, R. and Listokin, D. 1978. The fiscal impact handbook. New Brunswick, New Jersey: The Center for Urban Policy Research.
- Curran, D. 1973. Metropolitan financing: the Milwaukee experience. Madison, Wisconsin: The University of Wisconsin Press.
- Feldstein, M. 1975. Wealth neutrality and local choice in public education. The American Economic Review 65 (March): 75-89.
- Fischel, W. 1976. An evaluation of proposals for metropolitan sharing of commercial and industrial property tax base. Journal of Urban Economics 3: 253-263.
- Gatti, J. and Tashman, L. 1976. Equalizing matching grants and the allocative and distributive objectives of public school financing. National Tax Journal XXIX: 461-476.
- Lyall, K. 1975. Tax base-sharing: a fiscal aid towards more rational land use planning. Journal of the American Institute of Planners 41 (March): 90-100.
- Marcou, G. and Tischler, P. 1978. Fiscal impact analysis. Practicing Planner 8 (September): 43-46.
- Maxwell, J. and Aronson, J. 1977. Financing state and local governments. Washington, D.C.: The Brookings Institution.
- Muller, T. 1975. Fiscal impacts of land development: a critique of methods and review of issues. Washington, D.C.: The Urban Institute.



- Reschovsky, A. and Knaff, E. 1977. Tax base sharing: an assessment of the Minnesota experience. Journal of the American Institute of Planners 43 (October): 361-370.
- Riew, J. 1967. Fiscal disparities in the Milwaukee, Wisconsin metropolitan area. In Fiscal imbalance in the American Federal system, vol. 2, metropolitan fiscal disparities. Washington, D.C.: Advisory Commission on Intergovernmental Relations.
- Rosner, M. and Barrows, R. 1977. School finance reform and rural land use policy incentives. Land Economics 53 (August): 288-297.
- Treacy, J. and Frueh, L. 1974. Power equalization and the reform of public school finance. National Tax Journal XXVII: 285-299.