AN EQUILIBRIUM MODEL OF TAX ABATEMENT

City and Firm Characteristics as Determinants of Abatement Generosity

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The model of tax abatements includes taxing district and firm characteristics to explain a locality's abatement generosity. The community-level characteristics are for the school district in the enterprise zone that grants the tax abatement. Firm characteristics include the size, credit rating, number of newly created and/or retained jobs, and the quality of the jobs. Generosity of abatements is measured by the percentage of taxes abated. Firms that had credit ratings showing them to be more suitable risks fared better in negotiations; those that brought newly created jobs garnered more generous abatements; and those that promised retained jobs in the negotiation fared less well.

The myriad economic development initiatives embraced by state and local policy makers have given rise to a rich evaluation literature. Tax abatements, in particular, have been assessed by policy analysts in some detail. The economic and political factors affecting the supply of tax abatements offered by local governments have been modeled and tested primarily with reference to community characteristics. Our analysis builds on this literature by employing better data than have been used previously for both the concessions granted to businesses and the characteristics of political jurisdictions that make those concessions. We provide an empirical analysis of the determinants of the attractiveness of abatements granted, as measured by the percentage of taxes abated. Previous attempts have focused on a dichotomous variable, adoption or nonadoption, or a simple count of initiatives used. The
characteristics of governments offering abatements used in this analysis are for the school district in the enterprise zone that grants the tax abatement. This represents an improvement over the metropolitan-area data used in previous assessments of tax abatements. Finally, we are able to investigate how the size of the firm, its credit rating, the number of newly created and/or retained jobs, and the quality of those jobs affect the size of the tax abatement granted.

In this article, we examine the tax incentive offers made to businesses in Ohio’s localities under the Ohio enterprise zone (EZ) program. This analysis provides information on the usage patterns of the program across school districts. In particular, the data permit us to observe how incentives are tailored by governments according to the attractiveness of the proposed projects. During 1993-1994, 230 of the 607 school districts in Ohio entered into 859 contracts with firms to locate enterprise zones within those districts.

The Ohio EZ program provides a natural experiment to analyze local economic development implementation for at least two reasons. First, the property tax abatement is a primary tool of the program and can be structured flexibly by local governments. A second feature is that the Ohio EZ program is structured with little state oversight and decentralized control. Recent legislation (1994) has increased the restrictions on local governments with enhanced reporting requirements. However, the program is completely implemented at the local level within the state legislative guidelines.

This article is organized as follows. In the next section, the Ohio EZ program is described briefly. This description provides important background to understanding local government EZ program usage and government-firm bargaining. Following a review of a sample of the relevant literature, the data are next discussed. Empirical results, followed by concluding comments, complete the article.

**OHIO’S ENTERPRISE ZONE PROGRAM**

This section outlines the design features of the Ohio EZ program that potentially affect the generosity of economic development incentives. The EZ program is locally controlled and administered in accordance with rules specified by state legislation. Three important features highlighted are (1)
flexibility of zone designation criteria, (2) tax abatement as the primary incentives, and (3) relatively little state oversight of the program.

ZONE DESIGNATION CRITERIA

Ohio law establishes two types of enterprise zones: urban jobs and enterprise zones (adopted in 1983 legislation) and rural jobs and enterprise zones (adopted in 1989 legislation). For both types of programs, zones are designated based on certain geographic, population, and distress requirements. The focus of this analysis is the urban jobs and enterprise zones. Before designating an urban enterprise zone, the Department of Development ensures that the designated area meets certain key distress criteria. Hill (1994) analyzed these criteria to determine what areas in Ohio would qualify. He found that the criteria allow for any central city or Appalachian county to be declared as a zone. In addition, he suggested that the other criteria set forth in the guidelines are quite flexible and subject to interpretation, thereby facilitating zone designation.

INCENTIVES

A company that wishes to undertake a “project” within a designated enterprise zone may enter into an EZ agreement with the legislative authority. A project is defined as any undertaking by an enterprise to establish a facility or improve a site by expansion, renovation, or occupancy, including expenditures for land, buildings, machinery, equipment, or other materials except inventory. The agreement is negotiable, but the company must promise to invest a specified amount and create or retain a certain number of jobs at the facility. In addition, the most recent legislation requires that the enterprise agree to continue operation in the zone for a specified (additional) period.

Table 1 summarizes the tax incentives for the two EZ programs. Tax abatements can be granted for both real and tangible personal property and are restricted by the maximum percentage and time period. The percentage differs for the two programs—100% for urban and 75% for rural—but both restrict the length of the program to a maximum of 10 years.

Local authorities may also include service provision or assistance incentives. A company that enters into an EZ agreement also may qualify for additional corporation franchise tax benefits at the state level if it meets additional job creation requirements (see Hill 1994). The primary incentive is the property tax abatement, with local government flexibility as to the amount and
length of abatement; the most generous abatements cannot exceed 100% or more than 10 years.

**LOCAL CONTROL AND STATE OVERSIGHT**

The Ohio EZ programs are implemented by local governments with some state oversight. Each enterprise zone must establish a tax incentive review council comprising members of the affected municipality’s executive staff, the school board, and the general public. The council’s responsibilities include an annual review of all outstanding agreements to determine if enterprises have complied with their terms and make recommendations regarding the enterprises to the legislative authority. The 1994 legislation includes a requirement that the Department of Development determine that such reviews have taken place. Before a county or municipality signs an agreement, it must forward the tax abatement contract to the appropriate school district jurisdiction board in which the exempt property would be located. Although school districts do not have the authority to deny the company’s application, they must be given an opportunity to comment on the agreement contract. Each enterprise zone agreement must be reported to the state and must comply with legislative restrictions on the length and amount of the abatement, as well as promised job creation or retention. Currently, each EZ program administrator must evaluate each contract agreement annually and submit this information to the state Department of Development. Although reporting of the data is required, there is not legislation requiring state-level analysis of the data.

**TABLE 1: Ohio Enterprise Zone Programs’ Tax Incentives**

<table>
<thead>
<tr>
<th>Program</th>
<th>Type of Property</th>
<th>Maximum Amount</th>
<th>Maximum Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban jobs and enterprise zone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal designated</td>
<td>Yes, Yes</td>
<td>100%(^a)</td>
<td>10 years</td>
</tr>
<tr>
<td>County designated</td>
<td>Yes, Yes</td>
<td>100%(^b)</td>
<td>10 years</td>
</tr>
<tr>
<td>Rural jobs and enterprise zones</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal designated</td>
<td>Yes, Yes</td>
<td>75%(^a)</td>
<td>10 years</td>
</tr>
</tbody>
</table>

SOURCE: Compiled from Ohio Revised Code (5709.61-5709.66), Senate Bill 19 (1994), and Hill (1994).

a. In Senate Bill 19, the amounts are 75% for urban and 60% for rural, unless there is permission from the school board. This was operable in state fiscal year 1994.

b. In the original urban enterprise zone legislation (1983), the percentage for both real and personal property was 50% but changed to 100% in 1987.
MODELS OF TAX ABATEMENT BEHAVIOR

In this section, we review the literature on local economic development incentive program implementation to examine Ohio’s EZ program. The market-centered model of local economic development—with its central tenets of capital mobility, asymmetry of information, competition of localities for their share of that capital, and the perceived risks to local officials if they should fail in their efforts—concludes that business occupies the dominant role in shaping abatements (Peterson 1981, 1987). The visible bidding wars among states and localities to land a footloose business are seen by many as providing support for this perspective. In addition, the “business wins” view finds empirical support in the scholarly literature (see, e.g., Barnekov and Rich 1989; Molotch 1988; Fainstein et al. 1983; Bingham and Mier 1997). Wolkoff’s (1985) model of bargaining under asymmetric information between the city and a firm provides additional insight. This model suggests that, for example, if elected officials are shortsighted and maximizing their chances for reelection, they may offer more incentives than required. That is, the closer the negotiation with business is to an election, the less chance the government official will take in “losing” the business, and the more likely the incentive package will be larger. Other variables in this model control for the fiscal stress of the locality, among other factors.

The state-centered model serves as a counterpoint to the market-centered view. It holds that business does not necessarily always have the upper hand in city-firm negotiations. All capital is not equally mobile, economies of agglomeration exist, and local political structures enhance the city’s bargaining position in the state-centered model. Kantor and Savitch (1993) argued that the following three dimensions affect the bargaining relationship: market conditions, popular control systems, and public intervention mechanisms. They posited that cities with strong market conditions obtain influence over capital investments, as do those whose popular control systems permit elected officials to exercise influence over the development process. In addition, they argued that government systems that centralize or coordinate power are better able to regulate economic development.

Wolman and Spitzley (1996) cataloged the conceptual variables used in explaining the variation in economic development initiatives across localities. They indicated that local government institutional structures, measures of fiscal stress, need or deprivation, economic distress, and openness or citizen access are the most commonly used explanatory variables. In addition, Anderson and Wassmer (1995) argued that once a city or township offers an incentive, it is more likely to offer other incentives, and municipalities
offering commercial incentives are also more likely to offer manufacturing
property tax abatements.

Clingermeyer and Feiock (1990) argued that the existence of growth coal-
itions in the form of progrowth activity by city elites and business interests
will increase the use of economic development programs. Citizen involve-
ment, however, may enhance the bargaining power of the city in tax incentive
negotiations with a business as the citizens serve to put a check on the behav-
or of elected officials.

Related to the popular control factors are the political factors, which influ-
ence the use and implementation of economic development programs. At the
local level, these researchers suggest that a strong local executive (mayor)
increases the use of economic development incentives to lure business as it
increases the opportunities for public officials to reap political rewards by
claiming credit for development actions. This may lead to less favorable con-
ditions if the mayor is facing reelection and wants to encourage business
location.

The literature suggests several factors that affect the implementation of an
economic development program. However, many are missing a key element
in that negotiation—characteristics of the firms. In the next section, we build
on previous research, providing enhancements through the use of school dis-
trict and firm-specific data. As indicated earlier, we provide an improved way
to define variation in development activity. Previous attempts to examine the
issue of variability have focused either on a dichotomous variable, adoption
or nonadoption (Feiock and Clingermayer 1992; Sharp and Elkins 1991;
Cable, Feiock, and Kim 1993), or a simple count of initiatives used (Rubin
and Rubin 1987; Reese and Malmer 1994). We use the percentage of taxes
abated as a measure of variation. In this way, we hope to gain a more complete
understanding of the variation in abatement generosity.

DATA

To receive a tax abatement in Ohio’s EZ program, a firm must sign an
agreement or contract with the local government or governments that created
the zone where the firm is locating, relocating, or expanding. As indicated
earlier, the unit of our analysis here is the contract. Table 2 provides descrip-
tive statistics of the contract variables. The foregoing analysis is based on 859
contracts that were negotiated in enterprise zones located in 230 Ohio school
districts during two years—1993 and 1994. Data for the contracts were
obtained from the Ohio Department of Development. These data provide a
description of the contract, including the incentive offer in terms of the
percentage and length of the property tax abatement, the school district whose tax receipts were affected, and the types (new or retained) and quality (in terms of payroll) of jobs promised. These data are descriptive of the final contract signed between the city and the business and do not represent actual implementation information. For example, the jobs variables represent commitments for jobs rather than actual jobs. In addition, it should be noted that the number of observations is reduced for some variables because of incomplete contract data.

By matching the company name, we were able to augment these data with more firm-specific data (sales and credit rating) in the American Business Disc for the corresponding years.

Our primary source of data for school districts is the Education Management Information System (EMIS) District Profile for 1993-1994. The data are compiled by the Ohio Department of Education and available on the department’s Web site, http://www.ode.ohio.gov. This data set contains a wide range of district-level data, including expenditure, staffing, student characteristics, and test score results for a number of different instruments. (We excluded districts with less than 200 students, a restriction that removed only unusual districts—those located on islands in Lake Erie together with a very small rural district—which resulted in 607 school districts in the data set.) To obtain district-level population characteristics, we added data from the 1990 census as provided by the School District Data Book. Data on property values and sources of district revenue were obtained from the Ohio Department of Taxation’s Web site, http://www.state.oh.us/tax/analysis/shc.html.

Table 3 provides comparative data on the 230 school districts that, in 1993-1994, had enterprise zone agreements and the 377 school districts that did not have enterprise zone agreements. The amount of abatement relates to tangible personal property rather than that for real property. The percentage

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Observations</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>% tangible personal property tax abated</td>
<td>684</td>
<td>63.66</td>
<td>27.64</td>
</tr>
<tr>
<td>Length of tangible personal property tax abatement</td>
<td>684</td>
<td>7.73</td>
<td>3.69</td>
</tr>
<tr>
<td>New jobs created</td>
<td>857</td>
<td>50.0</td>
<td>103.0</td>
</tr>
<tr>
<td>Jobs retained</td>
<td>850</td>
<td>75.8</td>
<td>103.0</td>
</tr>
<tr>
<td>Credit rating (3 = excellent, 1 = poor)</td>
<td>735</td>
<td>1.99</td>
<td>0.96</td>
</tr>
<tr>
<td>Job quality (payroll per job)</td>
<td>636</td>
<td>27,380</td>
<td>20,049</td>
</tr>
</tbody>
</table>
of tangible personal property tax abated is employed as the dependent variable because it is more common, larger, and more variable than those for real property representing higher risk for the city.

The 230 school districts with active enterprise zone agreements during 1993-1994 are larger (as measured by the number of K-12 students), are more urban, and have higher dropout rates. They have lower median housing values as well as lower median incomes. A larger percentage of property previously has been abated in the active districts. The class 1 (residential and agricultural) valuation per pupil is lower, but the class 2 (commercial, industrial, mineral, and public utility) valuation per pupil is higher in the 230 districts. There is greater reliance on business taxes (class 2 plus business tangible property/total taxes) for those school districts with enterprise zone agreements.

**EMPIRICAL RESULTS**

We explain variations in the generosity of contracts negotiated in Ohio’s enterprise zones as a function of the community’s need for and interest in

### TABLE 3: Selected Characteristics of School Districts with Enterprise Zone (EZ) Agreements and Those School Districts Without EZ Agreements

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean Value for School Districts with EZ Agreements (N = 230)</th>
<th>Mean Value for School Districts Without EZ Agreements (N = 377)</th>
<th>t-Statistic for Difference of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment rate</td>
<td>6.3</td>
<td>6.2</td>
<td>-0.17</td>
</tr>
<tr>
<td>K-12 enrollment</td>
<td>3,916.62</td>
<td>2,261.20</td>
<td>-3.16</td>
</tr>
<tr>
<td>% urban</td>
<td>33.77</td>
<td>28.05</td>
<td>-1.54</td>
</tr>
<tr>
<td>% with B.A. degree</td>
<td>12.52</td>
<td>13.74</td>
<td>1.61</td>
</tr>
<tr>
<td>Teachers’ salaries</td>
<td>$35,111</td>
<td>$34,126</td>
<td>-2.67</td>
</tr>
<tr>
<td>Total % property abated</td>
<td>1.53</td>
<td>0.60</td>
<td>-4.21</td>
</tr>
<tr>
<td>Dropout rate</td>
<td>4.34</td>
<td>3.67</td>
<td>-2.81</td>
</tr>
<tr>
<td>Median family income</td>
<td>$23,636</td>
<td>$24,215</td>
<td>1.66</td>
</tr>
<tr>
<td>Median housing value</td>
<td>$60,427</td>
<td>$63,823</td>
<td>1.83</td>
</tr>
<tr>
<td>% on public assistance</td>
<td>6.64</td>
<td>6.70</td>
<td>0.16</td>
</tr>
<tr>
<td>Class 2 valuation/pupil</td>
<td>15,722</td>
<td>11,681</td>
<td>-3.08</td>
</tr>
<tr>
<td>Class 1 valuation/pupil</td>
<td>46,802</td>
<td>52,200</td>
<td>2.44</td>
</tr>
<tr>
<td>Class 2 millage</td>
<td>33.53</td>
<td>32.01</td>
<td>-2.40</td>
</tr>
<tr>
<td>Class 1 millage</td>
<td>30.79</td>
<td>29.77</td>
<td>-2.06</td>
</tr>
<tr>
<td>Business tax (% of total taxes)</td>
<td>41.36</td>
<td>28.44</td>
<td>-9.94</td>
</tr>
</tbody>
</table>
economic development, the appeal of the locality to the firm requesting the abatement, and the attractiveness of the business venture requesting the abatement. Underlying this formulation is a model of both the behavior of the political jurisdiction and a model of the behavior of the firms seeking the abatement. However, we do not have enough information to identify the underlying behavioral equations, particularly the firm’s location decision. Hence we focus on explaining the generosity of the community’s offer, noting that other community characteristics influencing location decisions will be exogenous. Accordingly, we first estimate a reduced-form equation that does not include potentially endogenous variables. This equation includes as regressors only those variables that are exogenous to the generosity of the contract in question, including total tax valuation per pupil, median housing value, median income, the unemployment rate, millage rate on business, percentage of the population receiving public assistance, a measure of school quality, and the number of agreements entered into by the zone jurisdiction of the project in question. Previous research leads one to expect the following relationships between these variables and the generosity of abatements (measured as the percentage of tangible personal property tax abated).

The need for development that would lead a community to offer more generous terms implies a positive relationship for the unemployment rate variable and negative relationships for median housing value, median income, public assistance, and total valuation per pupil. In addition, the greater usage a community made of tax abatements during 1993-1994 should be positively related to generosity. The tax burden on business, as measured by the millage rate on business, is expected to be positively related to the generosity of abatements with communities having to compensate for the tax burden placed on firms. A negative relationship between school quality and generosity is expected. Firms could be attracted to localities with high-quality schools and require less inducement, and localities with lower-quality schools may have to sweeten the deal to entice businesses.

Table 4 presents the results of the reduced-form estimation. The coefficient for the frequency of using tax abatement is in the predicted direction and is statistically significant. Communities that enter into more abatements are more generous, a finding that is consistent with previous research. It appears that if a community elects to use tax abatements, there is no turning back. More frequent use of abatements locks in the community and raises the stakes in subsequent negotiations. Communities with lower median housing values offer more generous abatements. It is possible that a lower-wealth community needs to offer greater inducements to compensate for locational deficiencies (see Rubin and Rubin 1987). In addition, the data suggest that there is a positive relationship between the millage rate on business and the
The coefficient of the business property tax millage indicates that higher taxes in a district will be partially but not totally offset by abatement of those taxes. For every added 1 mill of tax, the abatement percentage rises by 0.39 percentage points. Holding wealth constant, there is a positive but not statistically significant relationship between the log of median income and the percentage abated. The relationship between one measure of school quality, the percentage of sixth graders passing all parts of the state-mandated proficiency examination, and generosity is negative but not statistically significant.

As indicated earlier, we collected firm-specific data to gain a better understanding of the strength of the other negotiator in an enterprise zone agreement. One might expect that firms offering higher-quality jobs (as measured by wage per created job), more jobs (both new jobs and retaining old jobs), and with higher credit ratings might be able to extract larger concessions than other firms. (Because sales volume was used in the index to calculate the credit rating, it was not used in the analysis.) Addition of these project characteristics as regressors to explain abatement generosity permits an illustration of how political institutions respond to factors that make projects more attractive.

The drawback, however, is that these measures (number and quality of jobs) are potentially endogenous. Firms that understand the incentives of local governments in offering abatements will wish to structure their projects to make them as attractive as possible to maximize the generosity of concessions offered. Clearly, firms prospecting for abatements will wish to overstate the jobs associated with the project. But this overstatement will not in and of itself lead to simultaneity, for all firms will face the same incentives to


<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (t-statistic in parentheses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>−374.05 (−1.60)</td>
</tr>
<tr>
<td>Frequency of tax abatements, 1993-1994</td>
<td>0.64 (4.00)</td>
</tr>
<tr>
<td>Total tax valuation/pupil</td>
<td>0.04 (1.00)</td>
</tr>
<tr>
<td>Median housing value</td>
<td>−0.06 (−3.29)</td>
</tr>
<tr>
<td>Log of median income</td>
<td>46.30 (1.96)</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>−0.85 (−0.87)</td>
</tr>
<tr>
<td>Millage rate for business</td>
<td>0.39 (2.00)</td>
</tr>
<tr>
<td>% of population receiving public assistance</td>
<td>−8.26 (−0.13)</td>
</tr>
<tr>
<td>% of sixth grade passing all parts of proficiency exam</td>
<td>−21.90 (−1.39)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.11</td>
</tr>
<tr>
<td>Number of observations</td>
<td>509</td>
</tr>
</tbody>
</table>

abatement. The coefficient of the business property tax millage indicates that higher taxes in a district will be partially but not totally offset by abatement of those taxes. For every added 1 mill of tax, the abatement percentage rises by 0.39 percentage points. Holding wealth constant, there is a positive but not statistically significant relationship between the log of median income and the percentage abated. The relationship between one measure of school quality, the percentage of sixth graders passing all parts of the state-mandated proficiency examination, and generosity is negative but not statistically significant.
overstate. Assuming that governments have at least some ability to check the claims made for credibility, the abatements offered will be tied to underlying project characteristics with appropriate discounting of firm puffery. Stated differently, if firms need merely to claim that their projects would bring jobs without some material basis for those claims, the relationship between abatements offered and prospective jobs would evaporate because all firms would make indiscriminate claims.

A more serious potential simultaneity problem arises if the offers made cause the nature of the projects to change. For example, suppose that firms compute that the offer of a more attractive abatement is contingent on greater job creation and that the abatement reduces the effective marginal cost of an additional worker. Then the firm negotiating with a government can make credible commitments of increased jobs based on the lowered effective labor costs. That is, the negotiation process could affect the characteristics of the projects themselves, rather than merely the promises made about projects whose characteristics were exogenously determined.

This second source of endogeneity cannot be discounted entirely. Nevertheless, it might be considered of limited importance in practice because the grants of abatements are not contingent on the actual performance of the grantee. The performance of grantees was not subject to monitoring during this period, and no “clawback” provisions were written into the agreements. Accordingly, it can be argued that the determination of how a project will be implemented will be based on exogenous market forces, including local labor costs, technological considerations, and the demand for the products of the project. Hence it is reasonable to argue that the jobs-related characteristics of projects offered to governments are effectively exogenous and that such characteristics are appropriate for inclusion as regressors. Table 5 presents the results when project-specific data are added to the community characteristics to explain generosity.

Two project-specific variables are statistically significant: the business credit rating and the number of newly created jobs. Firms with higher credit ratings are able to extract more generous terms. This implies that communities are being selective in their choices as well and that the zeal for economic development has not necessarily overshadowed prudent financial policy. Firms that represent better risks are being offered better terms. Note that this relationship does not raise concerns about simultaneity.

A business offering higher numbers of newly created jobs enjoys better terms than one that does not. It is interesting to note that communities are more generous in their incentives with newly created jobs in comparison to retained jobs. The addition of a new job increases the abatement by 0.03 percentage points. A promise of a retained job increases the abatement by 0.01
percentage points. This indicates that the retention of jobs and the creation of jobs are evaluated differently. Firms that offer higher-quality jobs, as measured by the wage per job, are offered more generous terms. It is also worth noting that even if abatement generosity is determined simultaneously with the jobs promised, the relative ranking of new and retained jobs will still be informative.

The frequency of usage variables remains positive as well. Communities that are heavier users of abatements find themselves in a position of having to be more generous than communities that entered into only one agreement during the period. As in the previous equation, median housing value is negatively associated with the generosity of abatement. Communities with lower median housing values offer more generous abatements. Similarly, those communities with higher millage rates on business offer higher percentage abatements.

The results of this analysis indicate that our understanding of the variation in the generosity of tax abatements is enhanced by including characteristics of both partners in the negotiation. Firm-specific data increase the explanatory power of a model that traditionally relied primarily on community-level characteristics to understand the outcome of a negotiation. The data suggest that the “shoot anything that flies, claim anything that falls” syndrome was not necessarily operative in Ohio during 1993-1994. Firms that had credit ratings showing them to be more suitable risks fared better in the negotiations.
than those firms with less favorable credit records. Similarly, those that brought newly created jobs appeared to garner more generous abatements than ones with fewer new jobs. Interestingly, those firms that promised retained jobs in the negotiation fared less well. Perhaps communities did not take the threat of relocation from local firms as credible promises to provide new jobs.

Those localities with higher millage rates on business offered higher abatement percentages, seeking to overcome a perceived negative element in the business climate. Although the results did not corroborate the proposition that less wealthy communities seeking to offset their negative characteristics should “give away the store” to attract businesses, the results did show that lower median housing values were associated with more generous abatements. Less wealthy districts did offer better deals than their wealthier counterparts.

These results provide some support for the decentralized nature of the program in Ohio. Namely, cities do seem “rational” in their negotiations with business, offering more favorable tax abatement packages to “better” firms. On the other hand, it appears that Ohio cities that must overcome negative location characteristics offered higher abatements. Whether this is healthy or harmful to development for the state is not revealed from this model. In addition, the importance of the frequency of using tax abatements does sound a cautionary note. It is difficult to see how communities that rely heavily on abatements improve their bargaining position with firms in subsequent negotiations. Thus additional state oversight of the program may be warranted to avoid costly competition or to help communities that want to move away from tax abatement development policies.

NOTES

1. There are two types of urban zones: those designated by qualified municipalities and those designated by qualified counties, with the consent of any affected municipalities. We consider both types in this study.

2. Erickson (1992) analyzed survey data from 17 states collected by the U.S. Department of Housing and Urban Development. These data reveal that more than half of the programs have less than 20 zones. Ohio, along with only 3 other states, had more than 75 zones, and Ohio had the most zones.

3. In the recent legislation, some restrictions are put on establishments used primarily for retail sales. Only retail sales establishments in certain zones (those that meet certain criteria discussed earlier) can qualify. However, retail sales establishment is not well defined in the legislation and is negotiable with the Ohio Department of Development.
4. The real property tax base is land and improvements (building), and tangible personal property is defined as property that is not affixed to land or improvements, including inventories, machinery, vehicles, furniture, and computers.

5. Another model of bargaining in the presence of asymmetric information is Steinacker’s (1993) model.

6. In the models of business location, variables such as median income and housing value would proxy the businesses’ demand for their products (Bartik 1995; Wassmer 1992). In these models, they would be predicted to have a negative relationship too. For example, lower median income implies a less favorable business climate as demand for businesses’ goods and services would be lower.

7. Wassmer (1993) found similar results for the Detroit enterprise zones.

8. Erickson (1992) provides a discussion about the policy of decentralized control in enterprise zone programs and argues that it has benefits that could outweigh the costs of intrastate competition.

REFERENCES


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