

Who Benefits When Enterprise Zones Are Zoned-Out? The Case of the Ohio Enterprise Zone Program

Robert Turner
Assistant Professor
Government Department
Skidmore College
btuner@skidmore.edu

Mark Cassell
Associate Professor
Political Science Department
Kent State University
mcassell@kent.edu

Abstract

In theory, enterprise zones target economically distressed areas. In practice, they do not. The dramatic expansion of the Ohio enterprise zone program to non-distressed areas allows us to examine three important theoretical and policy questions about enterprise zone usage and performance when enterprise zones are no longer targeted. First, if the state does not limit which municipalities can utilize enterprise zones, which municipalities seek enterprise zone designation? Second, which enterprise zones generate the most new jobs and private investment? Third, where should Ohio designate its enterprise zones? We conclude with an analysis of the political dynamics and policy implications of expanding spatially targeted economic development policies to non-distressed areas. This study does not weigh in on whether the Ohio enterprise zone programs attract investment and jobs. Instead, this research seeks to orient the discussion toward the question of who, or to be more accurate “where,” benefits.

Enterprise zones are the most widely used place-based economic revitalization strategy. States designate zones in which firms receive financial incentives in return for private investment (Ladd 1994). While scholars have devoted considerable attention to evaluating whether enterprise zones attract new jobs and investment, they have paid surprisingly little attention to where enterprise zone programs are located. Enterprise zones were originally designed to stimulate private investment in impoverished neighborhoods. However, most state programs have modified their programs to permit the designation of less distressed areas to increase economic growth in the state as a whole. This change raises the question of who benefits when enterprise zones are not targeted at economically distressed areas.

The majority of enterprise zone studies attempt to assess the role of incentives in attracting jobs and investment to the zone. This study does not weigh in on whether state enterprise zone programs succeed in attracting investment and jobs. Instead, this research seeks to orient the discussion toward the question of who, or to be more accurate “where,” benefits. In their extensive review of research on state economic development policies, Wolman and Spitzley note, “there is a marked paucity of systematic empirical research on the distributional outcomes of local economic development policy (1996, 259).” Political scientists have noted targeted economic development policies rarely remain targeted, but spread their benefits geographically to build broader political support (Dewar 1998; Couch and Barrett 2004). However, few studies have empirically examined the location of the costs and benefits of place-based economic development policies like enterprise zones.

Ohio is an ideal state to study the consequences of expanding spatially targeted economic development policies to non-distressed areas. The state has increased the number of enterprise zones from 14 in 1983 to 385 in 2001. Moreover, Ohio has cumulative and verified employment

and investment data on each of the 3,157 firms that have received tax abatements under the enterprise zone program from 1983-2001.

The combination of the expansion of the program and excellent data allow us to examine three important policy issues surrounding spatially targeted policies. First, if the state does not limit which municipalities can utilize enterprise zones, which municipalities will seek enterprise zone designation? Second, which enterprise zones generate the most new jobs and private investment? Third, where should Ohio designate its enterprise zones? We conclude with an analysis of the policy implications of expanding spatially targeted economic development policies to non-distressed areas.

Spatially Targeted Economic Development Policies

Spatially targeted economic development programs have a poor track record in the United States of remaining targeted. At the national level, the Model Cities program expanded from 6 to 150 cities, and the Economic Development Administration distress criteria was systematically expanded to include 88 percent of all U.S. counties (Rhoads 1985). Enterprise zones are no exception. Both federal (Greenbaum and Bondonio 2003) and state (Talanker 2003) enterprise zone programs have systematically expanded over time to include less- or non-economically distressed areas as enterprise zones. Other studies find that states increase the number of enterprise zones as competition from neighboring states increases (Turner and Cassell 2004).

While there has been considerable research into whether enterprise zones improve economic outcomes when targeted at economically distressed areas, there is little empirical research into enterprise zone usage and performance when enterprise zones are no longer

targeted. The zoning-out of enterprise zone programs raises three important theoretical and policy questions.

First, if the state does not limit which municipalities can utilize enterprise zones, which municipalities will seek enterprise zone designation? The research on tax abatements presents conflicting theoretical and empirical conclusions about which municipalities are likely to utilize enterprise zones in the absence of any state constraints. Is it economically distressed communities seeking to improve their socio-economic conditions (Chang 2001) or offset their higher local property taxes (Anderson and Wassmer 1995)? Or is it wealthier communities which can better afford to offer tax abatements to improve their competitive position (Reese 1991)?

Second, which enterprise zones generate the most new jobs and private investment? The majority of research is pessimistic about whether state enterprise zone programs generate employment and economic growth (Engberg and Greenbaum 1999; Bondonio and Engberg 2000; Peters and Fisher 2002; Greenbaum and Engberg 2003). However, Wilder and Rubin's (1996) comprehensive review of states' own evaluations of enterprise zone programs found a large variation in job creation and investment results among enterprise individual zones within a state. Although theoretical research has suggested the public's return on incentives is likely to be higher in less affluent areas (Bartik 1991), other suggest certain areas have too many negative attributes to overcome with targeted development incentives (Dabney 1991, Peters and Fisher 2002).

Third, where should state site their enterprise zones? The debate over how states should allocate their scarce economic development resources is often presented as a stylized decision between targeting the neediest jurisdictions or maximizing economic growth in the state as a

whole (ACIR 1979). The developmental perspective contends that economically distressed areas are a poor investment for scarce state economic development resources, and that states should allocate their incentives to maximize economic growth in the state (ACIR 1981). On the other hand, the equity perspective suggests that disinvestment and population loss resulting from technological change and economic globalization create significant negative public and private impacts requiring public remedy (Bluestone and Harrison 1984). However, it is not clear how states should reconcile the growth versus equity trade off.

The Ohio Enterprise Zone Program and Data

The Ohio Enterprise Zone Program

The original legislation drafted by Cleveland Mayor George Voinovich and East Cleveland Representative Ike Thompson in 1981 provided tax abatements and incentives for employers who opened or expanded operations in urban areas of high unemployment and hired at least 50 percent of workers who were on unemployment or welfare. While the original proposal targeted 13 cities, the final legislation changed the criteria to “highly distressed areas.” Since then, the program has been modified to allow the creation of rural enterprise zones, extend the expiration date of the program, and loosen the designation criteria. Over time, the underlying rationale of Ohio’s enterprise zone program shifted from stimulating economic development in distressed urban communities to reducing the costs of Ohio’s tangible personal property tax and improving the competitiveness of the state overall (Bahl 1996). As a result of the programmatic changes, the state’s zone designation criteria are flexible and designed to facilitate zone designation (Hill 1994).

Ohio’s enterprise zone program is different in several respects from other states’ enterprise zone programs in that the control and cost of incentives is borne almost entirely by

local government. Local governments apply to the state to receive enterprise zone certification. Once communities received enterprise zone certification from the state, local officials can offer prospective firms sizable property tax abatements on new investment, which reduce the median firm's state and local taxes by 58 percent (Peters and Fisher 2002).¹

Data

Ohio has the best-studied enterprise zone program, in large part because of the longevity and quality of its firm level performance data.² Each firm receiving an abatement is subject to an annual review by the local Tax Incentive Review Council (TIRC) which assesses whether the firm is meeting the job and investment obligations specified in the original enterprise zone agreement negotiated between the local government and the firm. Each local TIRC forwards the information to the Ohio Department of Development (DOD), which collects and organizes the information into a statewide database that includes verified firm level data on every agreement signed between 1983 and 2001. The result is set of firm level data on the cumulative amount of tangible property investment and new and retained employment. Ohio's firm-level reporting requirements provide an accurate measurement of the economic benefits that each zones receives in return for its tax abatements.

One of the challenges in studying enterprise zones is matching the zone's boundaries with an administrative boundary for which data is collected. Following other studies of Ohio's enterprise zones (Byrnes, Marvel et al. 1999), we use school district level data to impute the socioeconomic, fiscal, and spatial characteristics of enterprise zones. The advantage of using school districts is that they closely match the political and economic boundaries of local government, unlike either county or zip code level data. The National Center for Education Statistics (2005) collects school district level data on per capita income, percent of families

below the poverty line, and percent of adults over 25 years of age out of the workforce as well as population and percent urban using the 2000 Census. The Ohio Department of Taxation (2005) collects data on the real and personal property tax rates, industrial and commercial property values, and tax capacity of each school district.

Since our socioeconomic and fiscal data does not capture the spatial characteristics of where enterprise zones are located, we also utilize the Ohio Department of Education (DOE) school district classification system. The DOE classifies each school district based on demographic characteristics such as land use, income levels, and poverty rates using Census data (Office of Policy and Accountability 2004). The DOE's typology identifies similar school districts for comparing educational outcomes at the state and federal level. We used their typology to identify four spatial categories of districts: urban poor, urban/suburban affluent, rural greenfield, and rural poor.³ These spatial categories allow us to assess the cumulative effects of location, income, educational attainment, and poverty, on enterprise zone designation and performance.

Which Municipalities Seek Enterprise Zones Designation?

The highly decentralized enterprise zone designation process in Ohio allows us to examine an important question: in the absence of any state restrictions, which local governments seek enterprise zone designation? To predict whether a local government has an enterprise zone designation, we performed a logistic regression on the 612 school districts in Ohio. The dependent variable is the presence of an enterprise zone. As of the end of 2001, the 385 school districts in Ohio had an enterprise zone agreement, while 226 districts did not.

Drawing upon the conflicting theories about whether poorer or more affluent communities were more likely to offer tax abatements, we present three hypotheses. First,

economically distressed areas are more likely to seek enterprise zone designation to stimulate economic growth and revitalization. Economic distress is measured in three ways: percent of adults over 25 years of age out of the workforce, per capita income, and percent of families below the poverty line. Second, areas with higher real and personal property tax rates are more likely to seek enterprise zone designation to lower their marginal tax rates and become more competitive with other locales inside or outside of Ohio. Third, since the incentives to firms are paid by tax abatements that remove up to 100 percent of the new investment from the tax rolls for a period of up to ten years, local governments will differ in their financial ability to offer such incentives. We predict that areas with higher tax capacity can afford to offer tax abatements without hurting their ability to pay for essential public services such as schools. Tax capacity is measured as the total real and personal property taxes levied per capita. We include the population in thousands and percent urban as control variables.

Table 1 here

The findings in Table 1 provide mixed evidence for our three hypotheses. The coefficient for tax capacity is positive and statistically significant, suggesting the usage of the program has more to do with a municipality's tax capacity than its economic need. Areas with a larger tax base are more likely to seek and receive an enterprise zone designation. This finding is consistent with other studies of property tax abatements that have concluded they benefit wealthier areas with larger tax bases (Rubin and Rubin 1987).

Economic distress is a poor predictor of which communities are designated as enterprise zones. Communities with higher poverty rates are less likely to be designated as an enterprise zone. However, per capita income is negative, which suggests that wealthier communities are less likely to seek enterprise zone designation. Neither of our measures of local governments'

tax rates, real and tangible property tax millage rates is statistically significant. Communities with higher property tax rates are no more likely to seek enterprise zone designation to reduce their rates and make them more competitive with neighboring areas. As expected, population and percent urban were both positive and significant.

Another way of understanding which local governments seek enterprise zone designation is to use the DOE school district classification system to examine the spatial characteristics of where enterprise zones are located within the state. The first row of Table 2 shows the percentage of school districts in each spatial category with an enterprise zone. These results suggest Ohio's enterprise zone program does a better job of ensuring economically distressed areas are designated as enterprise zones than the statistical analysis in Table 1 might suggest. Almost 75 percent of all districts in urban poor areas have an enterprise zone, which is higher than the other three categories of districts. However, the ease of enterprise zone designation has produced a proliferation of zones in non-distressed rural and economically prosperous urban/suburban areas. More than half of all the school districts in the state in these categories have an enterprise zone.

Table 2 here

The second row of Table 2 shows the total number of enterprise zones in each spatial category. The results indicate there are more zones in the urban/suburban affluent (106) and rural greenfield (140) parts of Ohio than the urban poor (87) and rural poor (53) parts of Ohio. The third row shows the percent of all Ohio's enterprise zones that are in each category of school districts. What is striking is how few of the 385 enterprise zones are in poor communities. Only 22.5 percent of the zones are in the urban poor areas and 13.7 percent are in the rural poor areas. The remaining 63.8 percent are in the affluent suburbs of major metropolitan areas or rural

greenfield locations. While the urban poor areas have more zones percentage-wise than non-distressed areas, the majority of Ohio's enterprise zones are in non-distressed areas.

The spatial analysis demonstrates two important aspects about which municipalities seek enterprise zones in the absence of state constraints. First, enterprise zones are widely used by all municipalities, whether they are rich or poor, urban or rural. Second, if states ease their rules to permit the designation of non-distressed areas as enterprise zones, the composition of enterprise zones within a state will shift from high poverty areas to the communities with greater tax capacity that can afford to offer tax abatements, thus raising the prospects for inter-jurisdictional competition among communities with varying tax capacities.

Which Enterprise Zones Attract the Most Jobs and Investment?

In this section, we examine which enterprise zones have been the most successful in attracting new jobs and capital investment. Our analysis does not seek to answer the causal question of whether the incentives were responsible for the jobs and investment or even the relationship between abatement usage and community economic health (Reese and Sands 2006), but rather what sorts of enterprise zones are associated with the greatest economic gains. We aggregate the firm level data at the zone level to assess the total number of new jobs and tangible property investment in each enterprise zone. To make the economic outcomes comparable between zones, we calculated the cumulative economic benefits per 1,000 residents for the duration of the program.

There is a dramatic difference in the economic performance of individual enterprise zones within Ohio. While the average enterprise zone created 21 new jobs per 1,000 residents, the most successful one created 245 and the least successful created none. Similarly, the average zone attracted \$4.5 million in new tangible property investment per 1,000 residents, although the

most successful zone attracted \$98.6 million in new investment per 1,000 residents and the least successful zone attracted no new tangible property investment. To explain the variation, we model the economic outcomes of each enterprise zone as a function of their economic distress, local tax rates, and industrial base. First, we predict zones in economically distressed areas will have a more difficult time attracting firms and thus have lower economic benefits. We measure economic distress using three variables: per capita income, the percent of the population that is non-white, and the percent of residents living below the poverty line.

Second, higher local property tax rates may influence firms' site selection process. While firms receive an exemption from local property taxes under the enterprise zone program, the abatement expires after a negotiated time period. Thus, we predict that districts with higher tax rates, as measured by real and tangible property tax rates, will have lower economic outcomes associated with the program. In particular, we predict that higher tangible property tax rates, which disproportionately affects manufacturing, will be negatively associated with economic outcomes.

Third, the overwhelming majority of research on site selection suggests that firms' locational decisions are driven by the availability of workforce, suppliers, infrastructure, and markets rather than incentives or tax rates. We measure the industrialization of each zone by the per capita dollar value of all industrial and commercial property in the school districts, as a proxy for agglomeration effects. We also include the percent of high school graduates and percent urban as control variables.

Tables 3 and 4 Here

The regression coefficients in Table 3 illustrate three important points about which enterprise zones generate the most employment and investment growth. First, enterprise zones

located in areas with higher levels of industrialization attract more new jobs and investment than their less industrialized counterparts. To put these coefficients in perspective, we vary the value of the industrial property in the zone one standard deviation above and below the mean while holding the other variables at their mean. Table 4 shows that zones located in areas that have high levels of industrial activity have dramatically more new jobs and capital investment zones on a per capita basis than zones with low levels of industrial activity located in low industrialized areas. This finding is consistent with arguments that incentives merely subsidize firms for investments they would have made already, although we cannot state that conclusively since firms potentially could have invested in neighboring states' industrialized areas. However, the results do suggest that enterprise zones are not dramatically changing firms' intra-state site selection decisions.

Second, the coefficient for the tangible property tax rate is negative and statistically significant in both models. This result suggests that zones in communities with higher tangible property tax rates, the tax that most affects capital investment in Ohio, attract fewer new jobs and business investment. Table 4 shows predicted probabilities for the impact of varying the tangible property tax rate on economic outcomes. Although the magnitude of the effect is not as large as industrialization, the results suggest enterprise zones cannot entirely offset the burden high tax communities face.

Third, economically distressed zones, as measured by per capita income, race, and poverty, do not fare any worse than less distressed zones. We suspect that the education variable, which is positive and statistically significant, may explain this lack of outcome. Similarly, in both cases the urban variable is negative, although it is only statistically significant

for investment. We suspect this is because firms in urban areas are mostly expanding existing facilities unlike firms in rural areas, which are building new facilities.

Where Should Ohio Designate Their Enterprise Zones?

Ohio's original enterprise zone proposal called for designating urban areas of high unemployment as enterprise zones. However, the program was changed to allow local governments in affluent urban/suburban areas as well as distressed and non-distressed rural areas to utilize enterprise zones. The large differential in the job and investment attraction of different zones raises a fundamental policy question, where should Ohio site their enterprise zones? The conventional wisdom, what we call the equity perspective, is that enterprise zones should target or designate economically distressed areas to maximize the public's return (Bartik 1991), minimize unfair competition from affluent suburbs (Landers 2000), and prevent tax incentive competition (Burstein and Rolnick 1994). However, alternative perspectives, what we call the developmental and efficiency perspectives, would evaluate the targeting question with different criteria.

In this section of the paper, we examine two policy questions about where states should site their enterprise zones. First, which zone locations, urban/suburban affluent, urban poor, rural greenfield, or rural poor, work best? Second, should states designate only economically distressed areas as enterprise zones, or should they permit the designation of non-distressed areas as enterprise zones as well? We articulate three perspectives, developmental, efficiency, and equity, for examining both questions. Each perspective adopts a different level of analysis for evaluating the economic impact of enterprise zones. From a developmental perspective, what matters is which zones are generating the most benefits for the state as a whole. From an efficiency perspective, what matters is which agreements generate the most economic impact

relative to costs. From an equity perspective, what matters is whether zones in economically distressed areas are able to compete with zones in non-distressed areas. Each perspective has a different level of analysis: developmental perspective → state as a whole; efficiency perspective → average benefits per acreage; equity perspective → economic impact by zone. We use the cumulative job creation and investment data to examine how the answer to the questions of where to site an enterprise zone is contingent upon which of the three perspectives policymakers adopt.

Developmental Perspective

Policymakers evaluating the enterprise zone program from a developmental perspective want to know which zones contribute the most economic benefit to the state as a whole. Table 5 shows the cumulative amount of new jobs and investment as well as the percentage of new jobs and investment statewide in each of the four spatial categories. The most new jobs and investment are in the urban/suburban affluent zones, followed by the urban poor, rural greenfield, and rural poor zones respectively. Almost 70 percent of all new jobs and 68 percent of all new capital investment associated with the state enterprise zone program is in urban areas. From the developmental perspective, enterprise zones in urban areas have generated more jobs and investment for Ohio than their rural counterparts.

Table 5 Here

From the developmental perspective, designating non-distressed areas as enterprise zones has significantly contributed to job growth and investment in Ohio. The majority of new jobs and investment associated with the enterprise zone program come from zones in non-distressed areas. Slightly more than 78 thousand jobs and nearly 15 billion in investment, or nearly 60 percent of all new jobs and tangible capital investment has occurred in non-distressed areas. For

policymakers evaluating the program from the developmental perspective, the implications are clear. Restricting enterprise zone usage to economically distressed areas would significantly reduce the amount of growth statewide associated with the enterprise zone program.

Efficiency Perspective

A policy-maker evaluating the enterprise zone program from an efficiency perspective would want to know which agreements generate the most economic impact relative to costs. This view is mostly likely to be taken by a policy-maker trying to consider how to ration the enterprise zones so as to maximize the amount of benefits relative to the cost in tax dollars foregone. Table 6 shows the average economic benefits and costs for each agreement with a firm. The average agreement with a firm that locates in an urban/suburban affluent zone produces significantly more new jobs (51.7) and tangible investment (\$9.2 million) than the average agreement with a firm that locates elsewhere in the state.

Table 6 Here

To put these numbers in perspective, we calculated the average cost per new job (cumulative tangible property tax foregone/cumulative number of new jobs) and the average cost of new investment for every \$1 in foregone tangible property tax revenue (cumulative \$ of tangible property investment/cumulative tangible property tax foregone) for the distressed and non-distressed zones. The benefit/cost ratio suggests that the cost of new jobs and investment is much lower in the non-distressed zones than the distressed ones. The cost of a new job in a non-distressed area is \$3,185 less than a job in an economically distressed area. For every \$1 in foregone tangible property tax revenue, the average agreement in a non-distressed zone generates \$12 more in investment than an agreement in an economically distressed zone. For economic development practitioners evaluating the program from an efficiency perspective of how to

maximize the amount of economic benefits, the implications are clear. Restricting enterprise zone usage to economically distressed areas would significantly reduce the efficiency of the enterprise zone program. Tax abatements in non-distressed zones buy more new jobs and tangible investment than tax abatements in distressed zones.

Equity Perspective

Proponents of an equity perspective would find fault with the developmental and efficiency analysis presented above. The economic outcomes associated with the non-distressed areas in the developmental analysis are benefits that might have occurred in the distressed areas if the enterprise zone were targeted and probably did not require an abatement. Similarly, the apparent higher efficiency of zones in non-distressed areas may be the result of the combination of non-distressed zones attracting better deals and poor communities forced to offer higher levels of incentives to compete with the more desirable communities.

Table 7 Here

The equity perspective examines whether the economically distressed enterprise zones are still receiving economic benefits under the expansion of the enterprise zone program to non-economically distressed areas. The equity perspective examines the average number of economic benefits per zone. The results are different from the statistical analysis in Table 3 since we are looking at the amount of jobs and investment per zone, not per capita. Table 7 shows the average economic benefits and costs for an enterprise zone in each of the four spatial categories. These results suggest that economically distressed areas have fared reasonably well. The zones in the urban poor areas have attracted more firms (13.3) and tangible investment (\$93.8 million) and retained more workers (1252.5) than the other zones, and attracted almost as many new jobs (465.3) as the urban/suburban affluent zones (477.3). Similarly, the comparison

between the rural greenfield and rural poor zones suggests that the rural poor zones are still able to compete and attract firms, jobs, and investment. However, the higher levels of tangible property tax foregone suggests that the zones in economically distressed areas must foregone significantly larger property tax revenues to compete. It is not clear whether the larger tax abatements in the urban poor and rural poor zones are because of competition from other zones or to offset their locational deficits. Despite the designation of non-distressed areas as enterprise zones, the economically distressed enterprise zones are still able to attract comparable jobs and investment, albeit at a higher cost in tax abatements.

Conclusion—Whither Place Based Economic Development Strategies?

In theory, enterprise zones target economically distressed areas. In practice, they do not. We have sought to examine who, or to be more accurate “where”, benefits when enterprise zones are zoned-out. Our results suggest when enterprise zones stop being targeted, communities with greater tax capacity, not economically distressed communities, are more likely to seek and receive enterprise zone designation. Moreover, enterprise zones in areas with higher levels of industrialization and lower tax rates are more successful in attracting new jobs and investment. Economically distressed zones still attract jobs and investment, although at a higher cost.

Our findings also shed light onto the political dynamics and policy implications of zoning-out enterprise zones. To date, most explanations suggest targeted economic development policies become un-targeted in order to build broader political support in the legislature (Dewar 1998; Couch and Barrett 2004). However, our results suggest that place-based strategies will face increasingly pressure to abandon the original strategy of designating economically distressed urban areas, to better satisfy the developmental and efficiency perspectives. By designating non-distressed areas as enterprise zones, Ohio significantly increased the amount of

new jobs and investment statewide associated with the enterprise zone program and were able to buy more new jobs and investment at a lower cost in tax abatements. To be sure, there are equity costs to zoning-out, namely higher abatements paid by distressed communities. However, these costs are not as visible nor as widely distributed as the developmental and efficiency gains.

Moreover, the institutional design of the Ohio enterprise zone program ensures that developmental and efficiency goals are likely to be accorded greater weight than equity goals. Although the state determines which municipalities can designate enterprise zones, it is local economic development officials who apply to the state, negotiate the agreements with firms, incur the abatement costs, and reap the economic and political benefits. The officials charged with implementing the program are judged primarily on developmental and efficiency criteria, not equity concerns (Rubin 1988). Only with a more centralized decision-making process would equity concerns being given greater priority.

These findings raise important questions about whether place-based strategies still make sense if they (almost) inevitably become non-place based. One argument would suggest that states should abandon place based equity strategies for people based equity strategies. Under this rationale, states should design their economic development policies from a developmental perspective to increase the size of state economies regardless of the location, and use the additional state revenues to invest in human capital and transportation policies that would disproportionately benefit low-income workers. While such an approach would likely meet with approval from economists, the political reality is that poor places are better able to make demands on the political system than poor individuals are.

A second view is that the expansion of enterprise zones to non-distressed areas is not problematic as long as the new jobs are spatially and functionally available to residents of

economically distressed areas. In Ohio, the majority of jobs, and investments are in the urban/suburban edge cities that are adjacent to the central city, high poverty areas. If there is sufficient transportation, these policies may benefit low-income individuals and communities by providing spatially accessible jobs that are paid for through abatements offered by higher income communities. Implicit in this approach is that what matters is the spatially accessibility of the jobs, not the location of the firms.

Table 1 Which Communities Seek Enterprise Zone Designation

		B	S.E.	Sig.	
Economic Distress	Per capita income (1,000s)	-0.12	0.03	0.00	***
	% Non white	-1.47	1.23	0.23	
	% in Poverty	-6.66	2.24	0.00	***
Tax Rates	Real Mills Tax Rate (%)	0.02	0.03	0.46	
	Tangible Property Tax Rates (%)	0.00	0.01	0.79	
Tax Capacity	Total taxes charged per capita	0.92	0.44	0.04	**
Controls	Population (1,000s)	0.03	0.01	0.00	**
	% Urban	1.20	0.33	0.00	***
	Constant	1.86	0.75	0.01	***
% Predicted Correctly		68.60%			

Dependent Variable: presence of enterprise zone (1=yes, 0=no)

Method: Logistic Regression

Unit of Analysis: School districts, N=612

Probabilities based on a 2-tailed test: *p<.10, **p<.05, ***p<.01

Table 2 Location of Enterprise Zones in Ohio by Spatial Category

	Urban/Suburban Affluent	Urban Poor	Rural Greenfield	Rural Poor
% of districts with an EZ	69.7%	74.4%	57.9%	55.2%
# of EZs in each spatial category	106	87	140	53
% of EZs statewide in each category	27.5%	22.5%	36.3%	13.7%

Table 3 Job Creation and Investment in Enterprise Zones

		Per Capita Job Creation			Per Capita Tangible Property Investment (\$s)		
		B	Std. Error	Sig	B	Std. Error	Sig
Economic Distress	Per Capita Income (\$1,000s)	-19.29	35.78	0.59	37.0	140.6	0.79
	% Non-white	4.91	20.68	0.81	4,850.4	5,685.1	0.39
	% in poverty	-32.75	45.48	0.47	7,490.2	12,498.5	0.55
Tax Rates	Real Mills Tax Rate (%)	0.15	0.48	0.75	239.1	131.8	0.07 *
	Tangible Property Tax Rates (%)	-0.34	0.20	0.09 *	-111.2	54.8	0.04 **
Industrialization	Industrial Value (\$1,000), per capita	6.40	1.40	0.00 ***	2,897.2	384.1	0.00 ***
	Commercial Value (\$1,000), per capita	1.01	1.26	0.42	-367.5	345.1	0.29
Control Variables	% Urban	-6.20	5.82	0.29	-4,988	1,603	0.00 ***
	% with high school degree	70.82	42.88	0.10 *	14,052	11,784	0.23
	Constant	-19.29	35.78	0.59	-9,246,467	9,834,447	0.35
R²		0.192			0.194		
Dependent Variable		Jobs created per 1,000 residents			Total tangible investment (\$) per resident		

Unit of Analysis: School Districts with enterprise zones; N=385
 Probabilities based on a 2-tailed test. *p<.10, **p<.05, ***p<.01.

Table 4 Impact of Industrialization and Tax Rates on Zone Economic Outcomes

		New Jobs per 1,000 Residents	Capital Investment
Industrialization	High	29.1	\$7,924,769
	Average	21.3	\$4,373,274
	Low	13.4	\$821,779
Tangible Property Tax Rates	High	16.5	\$2,791,844
	Average	21.3	\$4,373,274
	Low	26.1	\$5,954,704

Predicted values based on multivariate regression coefficients from Table 3 with variables held at their mean and industrial value and tangible property tax rates varied one standard deviation above and below the mean

Table 5 Comparison of Developmental Benefits

	Urban/Suburban Affluent	Rural Greenfield	Urban Poor	Rural Poor
Cumulative Economic Impact				
Total # of New Jobs	50,597	27,638	40,482	12,231
Investment (\$ millions)	\$9,025.9	\$5,961.6	\$8,161.6	\$1,983.2
Non-Distressed			Distressed	
Relative Economic Impact				
New Jobs	59.7%		40.2%	
Investment in millions	59.6%		40.4%	

Level of Analysis- State

Table 6 Comparison of Efficiency Benefits

	Urban/Suburban Affluent	Rural Greenfield	Urban Poor	Rural Poor
Average Benefits Per Agreement				
# of new jobs	51.7	36.6	35.1	45.1
Total tangible investment	\$9,228,908	\$7,896,123	\$7,078,571	\$7,318,087
Tangible property tax foregone	\$265,697	\$231,674	\$309,257	\$384,643
Non-Distressed			Distressed	
Benefits/Cost Ratio				
Cost per job	\$5,557		\$8,742	
Tangible investment per \$1 tax foregone	\$34		\$22	

Level of analysis- Agreement with firm

Table 7 Comparison of Equity Benefits

	Non-Distressed		Distressed	
	Urban/ Suburban Affluent	Rural Greenfield	Urban Poor	Rural Poor
# of agreements with firms	9.2	5.4	13.3	5.1
# of new jobs	477.3	197.4	465.3	230.8
# of retained jobs	816.4	542.9	1252.5	317.4
Total tangible investment	\$85,149,732	\$42,582,663	\$93,811,403	\$37,418,896
Cumulative tangible property tax foregone	\$2,451,426	\$1,249,384	\$4,098,545	\$1,966,758

Level of analysis- enterprise zone

Sources

- ACIR (1979). *The States and Distressed Communities*. Washington, DC, Advisory Commission on Intergovernmental Relations.
- ACIR (1981). *Regional Growth: Interstate Tax Competition*. Washington, DC, Advisory Commission on Intergovernmental Relations.
- Anderson, J. E. and R. W. Wassmer (1995). "The Decision to "Bid for Business:" Municipal Behavior in Granting Property Tax Abatements." *Regional Science and Urban Economics* **25**: 739-757.
- Bahl, R., Editor (1996). *Taxation and Economic Development: A Blueprint for Tax Reform in Ohio*. Columbus, OH, Battelle Press.
- Bartik, T. (1991). *Who Benefits from State and Local Economic Development?* Kalamazoo, Upjohn Institute Press.
- Bluestone, B. and B. Harrison (1984). *The Deindustrialization of America: Plant Closings, Community Abandonment, and the Dismantling of Basic Industry*, Basic Books.
- Bondonio, D. and J. Engberg (2000). "Enterprise Zones and Local Employment: Evidence from States' Programs." *Regional Science and Urban Economics* **30**(5): 519-49.
- Byrnes, P., M. K. Marvel, et al. (1999). "An Equilibrium Model of Tax Abatements: City and Firm Characteristics as Determinants of Abatement Generosity." *Urban Affairs Review* **34**(6): 805-819.
- Chang, Y.-C. (2001). *Evaluating the structural effects of property tax abatements on economic development across industries*. Bloomington, Indiana University.
- Couch, J. F. and J. D. Barrett (2004). "Alabama's Enterprise Zones: Designed To Aid The Needy?" *Public Finance Review* **32**(1): 65.
- Dewar, M. (1998). "Why Do State and Local Economic Development Programs Cause So Little Economic Development." *Economic Development Quarterly* **12**(1).
- Engberg, J. and R. Greenbaum (1999). "State Enterprise Zones and Local Housing Markets." *Journal of Housing Research* **10**(2): 163-187.
- Goss, E. P. and J. M. Phillips (1999). "Do Business Tax Incentives Contribute to a Divergence in Economic Growth?" *Economic Development Quarterly* **13**(3): 217-228.

- Greenbaum, R. T. and D. Bondonio (2003). "Losing Focus: A Comparative Evaluation of Spatially Targeted Economic Revitalization Programmes in the US and the EU." Regional Studies **38**(3): 319-334.
- Greenbaum, R. T. and J. B. Engberg (2003). "The Impact of State Enterprise Zones on the Establishment of Urban Manufacturing Establishments." Journal of Policy Analysis and Management **23**(2): 315-339.
- Hill, E. (1994). *Tax Abatement War Within the State*, Urban Center, Levin College of Urban Affairs, Cleveland State University: Unpublished.
- Ladd, H. (1994). "Spatially-Targeted Economic Development Strategies: Do They Work?" Cityscape **3**: 193-218.
- Landers, J. R. (2000). "The Impact of Land Capitalization on the Incentive Effects and Potential Use of Enterprise Zones." Planning and Markets **3**(1): <http://www-pam.usc.edu/volume3/v3i1a3s1.html>.
- National Center for Education Statistics (2005). *Census 2000 School District Tabulation (STP2) Data Download*, Institute of Education Science, US Department of Education. **2005**.
- Office of Policy and Accountability (2004). *Typology of Ohio School Districts*. Columbus: OH, Ohio Department of Education. **September**.
- Ohio Department of Taxation (2005). *Research: Property Tax Statistics*, Ohio Department of Taxation.
- Peters, A. and P. S. Fisher (2002). State Enterprise Zone Programs: Have They Worked. Kalamazoo, MI, W.E. Upjohn Institute for Employment Research.
- Reese, L. A. (1991). "Municipal fiscal health and tax abatement policy." Economic Development Quarterly, **5**: 24–32.
- Reese, L. A. and G. Sands (2006). "The Equity Impacts of Municipal Tax Incentives: Leveling or Tilting the Playing Field?" Review of Policy Research **23**(1): 71-94.
- Rhoads, S. (1985). The Economist's View of the World: Government, Markets, and Public Policy. Cambridge, Cambridge University Press.
- Rubin, H. (1988). "Shoot Anything that Flies; Claim Anything that Falls: Conversations with Economic Development Practitioners." Economic Development Quarterly **2**: 236-51.
- Rubin, H. and I. Rubin (1987). "Economic Development Incentives: The Poor Pay More." Urban Affairs Quarterly **22**: 32-62.
- Talanker, A. a. K. D. w. G. L. (2003). *Straying From Good Intentions: How States are Weakening Enterprise Zone and Tax Increment Financing Programs*. Washington, DC, Good Jobs First.
- Turner, R. and M. Cassell (2004). When Do States Pursue Redistributive Economic Development Policies?
- The Adoption and Expansion of State Enterprise Zone Programs. State Politics and Policy Conference, Kent University.
- Wilder, M. and B. Rubin (1996). "Rhetoric Versus Reality: A Review of Studies of State Enterprise Zone Programs." Journal of the American Planning Association **42**(4): 473-491.

¹ For a detailed description of the process see the ODOD website: <http://www.odod.state.oh.us/edd/ez/AgreemtProcess.pdf>.

² To put Ohio in comparative perspective, a 1990 survey found 37 state and 12 major cities kept no records on tax abatements Krumholz (1991).

³ Urban poor districts encompass medium and major cities, have very high poverty rates, low median incomes, and high percentages of minority students. Urban/suburban affluent areas are located around major urban centers, have lower poverty rates, high median incomes, and a high percentage of college graduates and employees in professional/administrative occupations. Rural poor districts are located in the Appalachian area of Ohio, have higher-than-average poverty, and the lowest percent of population with a college degree. Rural greenfield districts are located in rural areas outside of Appalachia, have below average poverty rates, but have lower rates of college education and professional occupations.