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Literature Review: Tax Abatements and Economic Development Incentives

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Literature Review: Tax Abatements & Economic Development Incentives

Incentives offered by cities to attract businesses have been used in America for well over a century, but not until the post-war years did their use become truly widespread. And while the practice of incentives has had at least forty years of intense academic scrutiny, it remains difficult to assertively answer many of the questions that have been put forth: Do tax incentives actually influence the firm's location decisions? Do incentives result in increased business activity in blighted areas, or do firms simply go to the richest places with the most money to offer? Is incentive use a zero-sum game at the national level, simply re-arranging the pattern of business activity that would have occurred anyway? Are incentives an efficient method of promoting economic development?

These and other issues this paper will attempt to address. It begins with a review of the literature on tax abatements as a specific method of economic development. The focus on tax abatements stems from a desire to examine the economic development practices of Lawrence, Kansas, which currently uses tax abatements as its primary development tool.

Following the discussion of abatements this paper turns to the more general issue of incentives as a method of economic development. It lists the intuitive theories behind tax incentives then reports the findings from several surveys and econometric studies.

TAX ABATEMENTS IN THEORY…

There are two general methods a locality can use when implementing tax abatements. The first is to offer them to every firm who requests them. This could be called an across-the-board abatement policy. The second method is to offer the abatements in a selective or discretionary manner. This policy grants abatements only to those firms which are deemed to have the characteristics most desired by the locality. A variation on this would be to offer large abatements to desirable firms and smaller ones to less profitable ventures.

There is no dispute in the literature that abatements offered across-the-board have no active potential for long term social benefit. Indeed, the majority sentiment is that even discretionary abatements fail the test of economic acceptability *in practice*, but certainly from a theoretical framework, the only way abatements have the capacity for profitability is if they be matched to the distinctive attributes of the firm to which they will be granted. Why? The main reason is that much of the evidence shows that abatements are not a primary factor in firm location decisions. If the abatement isn't needed to attract the firm, then granting one is throwing away thousands, if not millions, of dollars of tax revenues. And that is exactly what is done when they are granted across-the-board. However, the literature suggests that tax abatements can be:

1. Potentially useful if the assumption is correct that tax rates do affect a firm's decision to locate;
2. Revenue maximizing as long as they are used selectively to attract only those firms who would be certain to locate elsewhere in the absence of the abatement;
3. Relatively efficient if their use does not induce the overall property tax rates for non-abated property to rise.[1]

These sparks of theoretical 'ifs', as we shall see, are rather quickly put out by the wet blanket of reality wielded by dour economists. But continuing in the theoretical vein, it is interesting to contemplate the long run effect of using tax abatements, or any other incentive for that matter, in the effort to attract business to a given town.

Consider a world with five cities. At some point in time, City 1 goes through a period of economic decline. It decides it needs to attract more firms in order to increase employment and create jobs for its poor citizens. City 1 offers tax abatements in order to reduce the cost of doing business within its borders, and soon, firms are flocking in. What will be the reaction of the surrounding cities in a very short period of time? They will obviously begin offering abatements of their own, in order to be able to compete with the now dominant City 1. Soon, City 1 will have to increase the awards it grants in order to retain its ability to effectively attract new business. In the long run, all the cities have shot themselves in the foot. The big winners have become the firms, who play the cities off each other in order to generate higher and higher abatements.

…TAX ABATEMENTS IN PRACTICE

"It is difficult to imagine a realistic set of circumstances
under which tax abatements could contribute to
economic development…"[2] -Coffman (1993)

Hypothetically at least, it seems possible that abatements can be effective if some conditions are met. These conditions are examined in more detail below.

1. Do tax rates affect a firm's decision to locate?

Later in this paper a more thorough review of the empirical evidence on this question is presented. The conclusion is a tentative 'yes'. All else held constant, an area with high tax rates is less attractive to a firm than a city with lower rates. Research has shown there are often other factors which are much more important than tax rates, such as quality and availability of labor. However, it appears that tax rate differences become more important the smaller the area is narrowed down to as a possible choice for location. The assumption that tax rates have an impact on firm location decisions is important, because the effect of a tax abatement is to reduce those rates for the firm. If a city has higher tax rates than its neighbors, but offers an abatement which lowers them for a firm to a level *below* that of its neighbors, then the firm would choose the city with the high tax rates. If this outcome can be achieved, society may benefit by having business activity attracted to blighted areas where they wouldn't normally come.

2. Do cities offer abatements only to those firms who would be certain to locate elsewhere without them?

The short and simple answer to this question is "No". It appears that the approach most commonly used is to grant the abatements to all-comers. In the experience of one well-known researcher in the area, "abatements are virtually always awarded whenever requested" (Michael J. Wolkoff, 1985.)[3]

Take the case of Lawrence. The record has shown that Lawrence officials follow an across-the-board abatement policy, invariably granting abatements whenever requested. As a matter of fact, the city does have a list of criteria to which all firms requesting an abatement are compared, and one of the criteria is that the abatement should be reasonably expected to affect the location decision of the firm.[4] However, the fact that no abatement request has ever been turned down points to the fact that these criteria do not have to be met; they are merely guidelines for the city commissioners to consider when making their decision. The most recent abatement, granted in December of 2000 to the firm DST, was given after the firm had already occupied their building. Clearly the abatement was not necessary to lure the firm to town, and clearly the city does not grant abatements only to those firms for which it would be necessary.

Why is it that most cities follow the across-the-board policy? One obvious reason would be that cities view abatements as fulfilling other purposes besides attracting firms which would not otherwise locate. This thought is explored in more depth below. But even if the sole purpose of abatements was to attract firms who would not otherwise locate, consider for a moment how difficult it would be to accurately determine which firm will really not come if the incentive isn't offered. Naturally, if the firm is asked, the answer will be somewhat biased. In the recent city commission meeting in which the abatement was granted to DST, a commissioner asked the vice president of the firm if his company would still locate in Lawrence if the abatement were not granted. He answered "No". This was after DST had already hired 150 people and moved into their building.[5] If firms will lie about the need for an abatement when they know others can see right through them, they will obviously lie when they know they can fool the city, which is the majority of the time. Therefore, most attempts to separate those firms which really need the abatement from those who request it simply to raise their bottom line are futile. No wonder most cities offer them indiscriminately, feeling that it's "better to be safe than sorry." This, of course, neglects the inefficiency inherent with such an approach.

3. Can tax abatements be used without inducing overall property taxes for non-abated properties to rise?

The answer to this question lies in the particular circumstances of the city offering the abatement; therefore, it is hard to make generalizations. It is the opinion of the author that for the case of Lawrence, it is unlikely abatements have caused property taxes on other properties to rise significantly over what they would have risen regardless. The amount of money abated each year is not very high relative to the total budget of the city.

The recent high growth in Lawrence, along with a shortage of available area in which to build, has been the leading instigator of higher property values, and hence, taxes. To the extent that the rapid growth has been encouraged by abatements, the argument could perhaps be made that they have indirectly contributed to increased property values in the city.

Certainly the tendency would normally be for abatements to have an upward effect on property taxes in general. Guskind (1990) cites the case of Jersey City, who began offering abatements in the 70's, as an example: "In Jersey City, the valuation of real property skyrocketed to $5.6 billion in [1989's] reevaluation- up from $800 million in 1972… Taxes on a $250,000 apartment in the heavily tax-abated, waterfront Newport project were fixed at $3,300, while the owners of a $250,000 home elsewhere in the city got a bill for $7,500."[6] Over-more, there is increasing evidence that high overall, *non-business* taxes have a negative impact on firm location; thus, in cases where abatements force property taxes for citizens to rise, the abatement policy might actually be counter-productive. The reason for this, as Beck (1987) explains, is that "the characteristics of the local labor force are an important consideration in business location choices… high personal taxes will induce workers, particularly the most productive, highly paid workers, to move from a locality."[7] This tendency insinuates labor is a dominant factor for most firm's location decisions. Any effect, even one which is otherwise beneficial to businesses, will work to repel firms if it reduces the labor supply in an area or decreases its quality. Beck cites a study by Wasylenko (1985) in which "His review of the literature indicates there is substantial evidence of the negative effects on business location decisions of increasing overall tax burdens and personal taxes, although taxes directly on business – those most frequently targeted by abatement policies – appear to have no negative effect…"[8]

This section began with the assumption that three conditions need to be met for abatements to offer the potential for long term social benefit. The first is that local business taxes need to affect a firm's location decision. Current research seems to indicate that such is the case, and to the extent that abatements ameliorate those taxes, they have the potential to attract firms. However, other more important factors besides taxes, such as labor market conditions, may cancel out the effect of the abatement. The second condition is that cities need to offer abatements selectively; or in other words, only to those firms for whom the abatement is necessary to locate. As mentioned, making an accurate determination of which firms truly need the abatement and which firms simply say they do is a nearly impossible undertaking. Therefore, it comes as no surprise that cities routinely offer them across-the-board. This tactic may guarantee that abatements go to the needy firms, but at the same time it is an inefficient use of scarce resources when abatements are granted to the firms who don't need them other than to increase their profits. When that situation occurs, future tax revenues are sacrificed for the good of one firm. The last condition states that the use of abatements must not adversely affect property taxes on non-abated property. If it does, the long run negative impact on the local labor market may far outweigh any benefits a firm might receive from an abatement. Firms need workers, above all things, and if high residential property taxes cause skilled labor to move elsewhere, no amount of tax abatement will attract a firm. That this effect can occur there is no doubt; whether it does occur in any given city is something which can not be said generally, as local variations in many factors will determine the outcome. It is certainly an aspect to consider.

OTHER EFFECTS OF ABATEMENTS

Even if abatements can actively attract business activity it is wise to consider the other side effects it may have on a given community. These side effects are typically referred to as externalities by economists, and they can be positive or negative in their results. Of course, some externalities may exist in some communities and not in others. What is advocated is a common-sense approach in identifying the winners and losers of tax abatement policy, as with any policy, to determine if a given course of action is really the best means to an end.

Winners and Losers

As already mentioned, one possible side effect or externality of tax abatements would be to cause taxes on non-abated property to rise. Krumholz (1991) notes that when this shifting effect of the tax burden occurs, it usually goes to those who are least able to afford it: “Tax abatement trades-off growth for greater inequality in the tax system. Property taxes are generally considered to be regressive, tax abatement makes it more so by shifting the burden from capital to consumers, from large corporations to small businesses and homeowners.”[9] Citizens and small businesses in cities that offer abatements often feel disenfranchised, since they pay their share of taxes but the new firm in town doesn’t. City planners, on the other hand, often feel desperate in their attempts to attract business activity. To them, abatements are absolutely necessary to bring in businesses. The irony is that when used, they have the potential for making poorer citizens and smaller businesses worse off.

Zig-Zags and Optimal Location

In the 1870’s, an ambitious railroad project was begun. It was to stretch from New York city to Oswego. But instead of choosing the most direct route, the builders zigzagged the line all over the state. Why? In order to pass through 50 towns who offered a combined 5.7 million dollars in incentives.[10] No doubt the railroad benefited, but the same case couldn’t be made for its passengers.

The same result can be seen with tax abatements. If no cities offered incentives, all firms would locate in the areas which it was most profitable for them to operate. They would look for such things as a skilled labor force, factor input availability, and short distance to markets. The only way a firm would locate in a sub-optimal location would be if an abatement were offered that was sufficiently large to offset the disadvantages of operating in that particular location. This is technically an inefficient outcome, and inefficiency always has a cost. In this case, the cost isn’t born by the firm, but by the city in the form of lost tax revenues, and indirectly by the residents and other businesses who will have to make up for those lost revenues. Nevertheless, this scenario can potentially be beneficial if the incoming firm can make up for the inefficiency in some other way, such as lowering the unemployment rate by offering jobs. This is the primary argument used *for* tax abatements. However, the fact is that in the long run, abatements don’t bring businesses to the most needy areas, but to those areas with the most money. These are arguably the areas least in need of economic boosting. This unfortunate result occurs when cities don’t think beyond themselves. The common lament that has been frequently heard regards a large, well-to-do city with a relatively low unemployment rate whose economic development officials still feel the need to attract more business. When the tiny town 50 miles away offers abatements to compete, the rich city responds in kind. In the end the firms still locate in the better-off city, only now they are getting paid for it. The truth is, both cities are at fault. The large city can be faulted for not bothering to consider the welfare of its poorer neighbors. The small city can be faulted for not having the foresight to see where the abatement game leads to.

Krumholz even cites the extreme case of Cleveland, whose policies seemed to work against themselves: "Although tax abatements [were supposed] to be limited to the most blighted and poorest areas of the city, developers got the enthusiastic support of Cleveland officials to designate the most valuable real estate in the city as 'blighted.'"[11] Not only were abatements bringing in businesses to the areas which needed improving the least, but the businesses to whom the abatements were being granted hardly needed them either. These included the most profitable bank in Ohio and a group of developers who were among the 100 richest families in America.[12] Clearly, whether they realized it or not, Cleveland officials were offering abatements for reasons other than economic development.

Will They Stay?

If the abatement is truly necessary to attract a firm then one can immediately know that the firm would be more profitable operating elsewhere. This has already been discussed in detail. What is surprising is that communities often look forward to the time when the abatement period is over and they can begin to recapture some of their investment through full property taxes, while never stopping to think that the firm is looking forward to that same time as well: only to them, it will mark a change in circumstances in which it will no longer be profitable to operate. At that point it would be better for the firm to relocate to a more optimal location, or better yet, find another city that will offer them incentives. Some researchers, such as Chinn (1989), argue that tax abatements actually "increase the likelihood that firms will relocate."[13]

WHY USE ABATEMENTS IF NOT EFFECTIVE?

"Given the organizational and political complexities inherent in abatement decision making, coupled with the lack of certain pay-off, skeptics might question why localities should offer abatements at all." [14] -Wolkoff (1983)

Many economists have been prompted to question why municipalities continue to offer abatements indiscriminately when they have been shown to be largely ineffective and resource-wasting. Asides from those states which mandate that abatements be uniform and automatic, several reasons have been put forward to explain this seemingly paradoxical behavior.

Wolkoff (1983) gives one possible reason why abatements are offered across-the-board: doing so, he says, "reduces decision costs and assures that award giving will not be improperly preferential."[15] In other words, the decisions regarding tax abatements are made in light of what is easiest for the decision-maker to accomplish. This comprises a rather dim view of political decision making, but all things considered, a view perhaps not terribly far from reality. Wolkoff adds that an across-the-board abatement policy also protects decision-makers from the potentially controversial subject of how abatement levels are to be chosen and what types of firms should be given priority.

Wolman (1988) gave three possible explanations for the practice of offering invariant abatements when the literature indicates their use is negligibly profitable. First he argues that decision-makers may be unaware of the literature regarding the ineffectiveness of abatements. Or, even if they are aware of the literature they may distrust it; choosing instead to believe the firm who says abatements are necessary. Secondly, even if the decision-maker knows abatements are ineffective development tools, he or she may feel the need to offer them anyway because everyone else is doing it. This effect is a particularly strong one which many researchers have observed. Once a given location begins offering abatements or other incentives, surrounding cities usually follow along in an attempt to 'keep up with the Joneses,' as it were. And third, Wolman hypothesized that abatements may serve important 'signaling' functions unrelated to their actual usefulness. The abatement policy may be implemented to serve as a signal to potential businesses that local government is committed to economic growth. As Eisinger

(1988) put it, tax incentives "are best seen principally as the exercise of symbolic politics in the effort to fashion a hospitable business climate."[16]

Burnier (1992) decided to further the study on Wolman's theories by interviewing Ohio policy makers about their own views on the subject. She found that decision-makers were indeed aware of the literature surrounding tax abatements. However, she noted that decision-makers "distinguished sharply between the real world of economic development and the research world of social science…. Whatever the research may conclude, officials' practical experience tells them that incentives are important because firms routinely request them as a condition for location and expansion."[17] This lends credence to the notion that officials simply don't trust the literature. However, as Burnier points out, officials are making a "dubious distinction" between the literature and the real world, since by definition the empirical evidence laid out in the literature is based on observations of the real world. Her most important conclusion, however, was that offering incentives "allows practitioners to do something concrete and thereby build a record of tangible accomplishments." Often faced with tremendous pressure to do something, especially in cities undergoing economic decline, Burnier says that using abatements "give the practitioners the opportunity to appear active and engaged, and they give elected officials the chance to claim credit and reassure the community members that jobs are being created."[18]

Finally, one might be tempted to include this last reason why abatements are still used: because researchers have put forth very little in the way of viable alternatives. Researchers admit that once the practice has begun it becomes very difficult to change course. Indeed, there are no doubt many community leaders who feel trapped in a sub-optimal situation but are compelled by their circumstances to stay the course. Unfortunately, it would seem the use of abatements exacerbates the imperfection which they were intended to cope with.

MAKING ABATEMENTS MORE EFFECTIVE

Probably the best solution to the abatement dilemma would be to ban them outright. This method would only be effective if *everyone* quit using them, something which is not likely to happen. To date there have only been limited efforts to reduce the use of incentives. Mostly they have taken the form of partnerships between cities, who have agreed bilaterally to abstain from offering incentives. But without state or federal legislation, incentive use is unlikely to decline significantly anytime soon. Realizing this, some researchers have attempted to offer some suggestions which are aimed at increasing the cost-effectiveness of incentive policy. Those pertaining to tax abatements are discussed.

The literature is unanimous on the aspect of abatement policy that should be the most important: they should be granted *selectively*. As mentioned at the beginning of the review, only selective abatements offer the possibility of increasing city revenues in the long run. Even if the city wishes to continue offering abatements to all-comers, their use can be enhanced if decision-makers develop methods to systematically identify firm characteristics which are felt to be most important to the local community. These qualities should be included in the abatement formula, as some function of the maximum amount willing to be awarded. In those rare cases where the city feels confident the incoming firm would locate without the abatement, then it should not be granted.

Furthermore, the use of clawbacks is highly encouraged. This is the general term for any policy which ties incentives to performance. Levels of performance are agreed upon by the city and firm before the abatement is granted. These levels of performance, as well as the consequences for not meeting them, are included in a binding, legal contract which is signed by the city and the firm. Ledebur and Woodward (1990) identify several specific methods by which awards can become a condition of firm performance: Recisions are the complete cancellation of the incentive, penalties are fines charged when the firm does not meet a certain level of performance or relocates, and recalibrations are provisions for changing the abatement in some manner in order to accommodate an evolving economic climate.[19] The use of these tools will provide a safety net to the community, ensuring that its investment in the firm will result in the positive benefits it expects.

Finally, record keeping is necessary if a sound policy stance is to emerge over time. While this may seem obvious, Krumholz (1991) cites a survey in which "37 of the 45 states returning the survey and 12 of the 14 largest cities returning the survey say that they kept no records whatever on tax abatements."[20] Peckol (1988) believes that this lack of record keeping constrains a community's ability to conduct effective cost benefit analyses of their abatement policy.[21] The nature of tax abatements would mean that records on even a single firm would have to be kept for a long period of time in order to be useful: at least ten years, and ideally even more. Perhaps such is the reason that record-keeping has not been popular. However, to make it easy on the city, the firm could be required as one condition of the abatement to submit annual reports on its performance, job growth, etc… This information would become invaluable to decision makers in the future, who being aware of history, could repeat its successes and avoid its mistakes.

A LOOK AT ECONOMIC DEVELOPMENT INCENTIVES IN GENERAL

So far this review has discussed tax abatements at length. In actuality, there are a great deal many other incentives in use, including new investment tax credits, tax credits for job creation, sales tax exemptions, outright grants, loans, loan subsidies, tax increment financing (TIF's), enterprise zones, Downtown Development Authorities (DDA's), and many others. All of these fall into the category of economic development incentives, and all are aimed in some manner at reducing the costs of operating a business in order to attract firms, which in turn will hopefully lead to increased economic growth and employment. That's the idea, but whether or not economic incentives are doing their job is a question which researchers have spent considerable time and effort to answer. Following is a short summary of the matter, starting with intuition, moving to opinion, then concluding with empiricism.

Intuition

The vast majority of all research on business location decisions has focused on the effect of taxes rather than incentives on business location decisions, primarily because more data is available on the former. Intuitively, given that taxes vary by location, and holding all else equal, it would be reasonable to assume that the degree to which incentives ameliorate those taxes could very likely have an impact on which location a firm chooses. Therefore, the goal has been to discover whether or not high taxes repel businesses. If the findings indicate they do, the assumption can be made that any incentive which lowers those taxes can attract businesses.

Opinion

There has been extensive use of surveys in order to get the opinions of business leaders on the importance of incentives in the location choosing process. While some economists reject these surveys as unreliable, the results have been widely publicized in the press and no doubt many economic development officials use them to justify their practice. One advantage some may see in the survey findings to date is that they are for the most part fairly consistent, something which can't be said for the results of econometric analyses. However, consistency is probably the best thing that can be said of the survey approach. The inherent shortcoming with the method is that firms obviously find it in their best interest to overstate the importance of tax incentives in their location decisions. This renders the survey findings suspect. Furthermore, even if all survey findings were completely trustworthy, their usefulness only goes so far as to indicate whether or not a firm considers an incentive valuable in their location decisions. The survey can not go so far as to *quantify* that position, or in other words, tell us *how* valuable the incentive is. For this reason, policy recommendations based on survey results are difficult to formulate. Nevertheless, since surveys are widely cited in the literature they will be mentioned here as well. The aggregate result of these surveys is what one might expect: a fair percentage of firms claim incentives are important factors in their location decision, and their importance increases when the decision comes down to similar locations in the same geographical area. Here are a few samples, taken from a summary done by Bartik in 1991:

Schmenner (1982) surveyed Fortune 500 companies and observed that incentives become much more important the further along in the location decision process the firm was. Specifically, only 1 percent of respondents indicated that taxes were a “must” factor when considering regions or a state for a new plant, but 35 percent of respondents claimed that low taxes were desirable when comparing particular sites. A survey of hi-tech companies by Premus (1982) found that 67 percent considered taxes “significant” or “very significant” in influencing their growth decisions. A survey done by Walker and Greenstreet (1989) found that 37 percent of Appalachian manufacturing plants which had received an incentive offer considered them to be decisive in their final location decision. And finally, Rubin (1991) did a survey of New Jersey firms located in enterprise zones, 32 percent of which said that the EZ incentives were their “primary” or “only” reason for locating or expanding in the zone. Many other surveys have been conducted, but all with the same general results. They simply point out that firms believe tax incentives are important when making their location decisions.

Empiricism

This leaves us to look at empirical research. Perhaps surprisingly, given the sheer quantity of work in this area, much of the findings have been inconsistent and varied. Even some recent reviews of the literature appear to disagree on what can be concluded from the work.[22] Perhaps the most well known researcher in this area, Timothy Bartik, has called the “fragile results” of empirical research on business location decisions a recurring theme in literature-reviews.[23] Nevertheless, I think it would be fair to say that a majority of researchers, perhaps by a slim margin, agree that incentives can affect business location decisions to some degree. There are some dissenting voices, but for the most part the debate has turned to *how much* taxes affect business location decisions, not *if* they affect them.

What has caused much of the skepticism surrounding the econometric studies of business location decisions is the methodological shortcomings inherent with the analysis. The econometric scrutiny of the determinants of business growth, however defined, is rife with procedural limitations which are exacerbated by the complexity of the subject in question. Perhaps the most formidable problem that has yet to be overcome to everyone’s complete satisfaction is the issue of endogeneity of many of the explanatory variables in the regression analysis. A very simplified explanation of this problem is that it makes it hard for researchers to determine the direction of cause and effect. Suppose a researcher is trying to explain why economic growth has occurred. He may have several explanatory variables, such as taxes, wages, and land prices. These all affect growth, but so might some other variables which he might have omitted. Assume a new firm comes to town and causes growth, but also an increase in wages and land prices. The researcher may incorrectly conclude that an increase in wages and land prices caused the growth, when in fact it was the other way around. The problem can become much more complex, of course, and it isn't the only one which econometricians face. Others include the lack of data on important variables such as labor quality and levels of public service; this causes the researchers to use questionable proxies. Furthermore, when doing national studies there arises the daunting task of comparing the tremendous variety of state and local tax differences. A detailed discussion of the technicalities of these difficulties isn't strictly relevant here, but they all tend to bias the results to such a degree that the findings often vary greatly even between studies using the exact same methodologies.

Bartik (1991) has done probably the most all-encompassing and recent review of empirical studies, summarizing every published and unpublished work in the twelve years from 1979 to 1991. Out of a total of 123 studies he found that 73 percent had at least one statistically significant negative tax effect on business location. Out of 100 of these which were roughly comparable he found the average mean elasticity of business activity with respect to taxes to be –0.88. In other words, a one hundred percent increase in taxes would cause business activity to decrease by 88 percent, or vice-versa. His review led him to conclude that the negative effect of taxes on business location grew more pronounced as the focus of the study moved from interstate decision areas to intrametropolitan areas. This is an observation we would expect in an accurate empirical study, since intuitively tax effects are likely to be factors more important to business location decisions when choosing between two areas near each other with similar characteristics than when choosing between two broad geographic regions such as states. Based on the studies which focused on different scales of decision making, he estimated that the long run elasticity of business activity with respect to taxes to be in the range of –0.1 to –0.6 for intermetropolitan and interstate location decisions and between –1.0 and

–3.0 for *intra*metropolitan decisions.[24] From these findings he concludes the following: "…most business location studies have found some evidence of significant negative effects of state and local taxes on regional business growth," and hence, "state and local policies can significantly affect the long-run level of business activity in a local economy."[25]

A review by Wasylenko (1997) that included Bartik's studies as well as more recent efforts found much smaller elasticities in the 0.0 to –0.26 range for interstate location decisions. Wasylenko concluded that the results are still more "similar than they are different" but he also noted that the range of elasticities remains very wide. This, he concludes, is mostly explained by "variations in data, time periods, and other variables used in the estimation equation. In effect, the results are not very reliable," he says.[26] Muddying the waters even further, he notes: "Several carefully done studies by respected researchers find tax elasticities larger than the –0.6 upper bound of Bartik's range (L. Papke 1991; McConnell and Schwab 1990; Munnell 1990; Bartik 1989; and Wasylenko and McGuire 1985). But at least an equal number of researchers using similar care and sophistication in their approaches find small or statistically insignificant tax effects (Tannenwald 1996; Carroll and Wasylenko 1994; Wasylenko and Carroll 1991; McGuire and Wasylenko 1987; Carlton 1983; Bradbury, Downs, and Small 1982; Schmenner 1982; and Browne, Mieszkowki, and Syron 1980)."[27]

On the extreme side, in a recent journal which dedicated the majority of an issue to this discussion, and which included an article by Bartik, another contributor, Professor Netzer, wrote under the heading of 'Some Studies *Should* Be Trashed' that Bartik's well known elasticity estimates reside in a class best described as a "field of dreams."[28]

The fact is, in spite of massive amounts of effort over decades of time, few researchers are willing to make assertive statements or definitive conclusions in answer to the question of whether economic development practices affect business location decisions. Nevertheless, it is the conviction of this reviewer that the majority of researchers do agree on a few basic statements:

1. If state and local taxes do have an effect on business location decisions, they are likely to be mildly negative.

2. To the extent that state and local taxes do have an effect on business location, they become much more influential in affecting the decision between two similar locations within the same region.

EFFECTS OF ECONOMIC DEVELOPMENT INCENTIVES

Any given community may be satisfied to know that taxes do affect business location decisions, and hence the incentives they offer have the potential to attract business. That's fine for the community, but what about the results of economic development incentives on the macro-level?

Much of the current debate surrounding the use of incentives has been phrased in terms of economic game theory and whether or not economic development is a negative, zero, or positive-sum game. The 'game' typically focuses on the macro-economy of the nation as a whole.

Theoretically, one would suppose the game to be zero-sum. While incentives may serve to attract firms to a given location, that firm had to locate somewhere and wasn't created in order to take advantage of the incentive. While one city or state might gain, the competing city or state lost, so the result is nothing more than robbing Peter to pay Paul. The nation as a whole is no better off and is perhaps worse off.

For the game to be positive sum, the use of incentives must be shown to attract businesses to places of high unemployment where a firm would not normally locate on its own. This will cause total national employment to increase and help to lift areas undergoing economic decline. (This assumes the goal of economic development incentives is to increase employment.) The question now becomes whether incentives draw business activity and investment to areas of high unemployment. Two recent approaches are outlined below.

Hypothetical Firm Model

Fisher and Peters (1998) are about the only researchers who have made extensive use of this approach, which is outlined in their book, *Industrial Incentives: Competition Among American Cities*. The method begins by creating a fictitious or 'hypothetical firm'. In fact, they create many of them from different industry groups. They then put themselves in the shoes of the firm and ask themselves, "Where is the most profitable location for me to go?" They reproduce the firm's decision making process through a very thorough process. The effects of incentives on the final decision are also modeled. Their conclusion, which has not been substantially opposed or doubted, is that incentives at both the state and local level do not act as magnets to attract businesses to *needy* areas. "The only firm conclusion is that, after at least a decade and a half of intense competition for investment and jobs, and the widespread adoption of pro-development tax policies and incentives, states and cities have produced a tax and incentive system that provides no clear inducement for firms to invest in higher-unemployment places."[29] To the contrary, incentives seem to attract businesses to the areas one would suppose they would have gone to in any case: those with the most money to offer in incentives, who by definition, are often the least needy.

Incentive Use in a Metropolitan Area

A very recent study done by Anderson and Wassmer (2000) focused on incentive use within a specific metropolitan area rather than the nation as a whole in their work, *Bidding for Business*. The study, which covered incentive use over a twenty year period, looked at the Detroit metropolitan area. Specifically, they wanted to find out if the use of incentives in the area had worked to bring economic activity to places where it was needed most and would not otherwise go. Their research indicated that population growth, residential employment, percentage of white residents, and percentage of population with a bachelor's degree were all higher in the outer cities (98 of them in their study) than in the Detroit core (comprising 14 communities).[30] The authors then surmised that if incentives had been effective they would find them offered more frequently over time in the Detroit core, where business activity was needed most. Their findings were contrary to what they might have hoped. They found that prior to 1977 communities which offered incentives were on average 17.4 miles from downtown Detroit. This distance had increased to 19.8 by 1992. The average distance from downtown Detroit of all communities in the sample was 20.8 miles.[31] The story which they wove from the observations of their research followed this path: Initially, those areas with the highest unemployment rates and other disadvantageous characteristics which made them unattractive to businesses offered incentives to offset their shortcomings. In this study, the disadvantaged area was primarily the Detroit core. Over time, potential firms who were offered incentives in the downtown area would turn around and ask if the suburb would match it. Before long, incentive use spread to the surrounding areas. The demographics of the situation were such that the suburbs were characterized by higher levels and quality of services which were attractive to businesses as well as residents. A migration occurred from the core to the suburbs, but those migrating were those who could afford to do so. This left the lower income classes in the core area as well as lowered government revenues in the area. Services dropped in the Detroit core and the situation became such that incentives were no longer able to offset the steadily worsening business climate. It is not hard to imagine the vicious cycle which emerged.[32] It prompted one author on city life to claim in his book: "For all the moaning about the plight of the cities, there is really only one major American downtown that has gone to hell in a handbasket, and that is Detroit" (Joel Garreau, 1991).[33]

If the premise that incentives can result in a positive-sum outcome rests on the assumption that they attract business activity to needy areas, they seemed to have failed the test.

OPTIONS FOR REFORM

The perceived inability of economic development incentives to increase national welfare has led many economists to call for federal intervention or reform. There are really only three options that Federal or state governments can take: do nothing, eliminate incentives altogether, or regulate their use in some manner.

The first option, do nothing, is the least palatable to most economists but realistically the one most likely to prevail, at least for the foreseeable future. The advantages and disadvantages of this route have already been discussed: some cities and certainly firms gain through the use of incentives, but other cities, in all probability the ones most in need of jobs, lose. Anderson and Wassmer state that "If local economic development incentives exist to redistribute business activity to a place where it would not otherwise go, we believe that continued free choice in the offering of local incentives is the worst of the three possible policy options."[34] This is precisely because economic development incentives have been shown *not* to redistribute activity to the places it would not otherwise go.

The second option, eliminate incentive use completely, has been advocated by many. In 1995, over one hundred economists issued a press release calling for the end to "targeted business incentive programs."[35] This course of action would necessitate federal intervention, and for several reasons, is probably the least likely to occur. Disregarding the immediate concern of undermining state's rights, there would be other subjective issues which Washington would have problems coming to grips with, such as who decides the definition of an 'incentive' and what methods would be used to enforce the new law.

The third option, regulate incentive use, seems to have the most sound reasoning. If incentives can be used to attract businesses, and hence create jobs, then it would seem wise to allow them in areas of high unemployment and fiscal blight. Here again though, the implementation concerns are formidable. Who will decide what areas are in fiscal blight? Most likely it would again require the federal government to intervene. The lobbying efforts made by states and cities reluctant to give up incentives would be tremendous. The pressure would be to lower the meaning of the definition so that any area could claim the use of incentives. And again, there would be difficulty in enforcing the law.

The struggle to divorce cities from the use of incentives will most likely prove too difficult, and so, for better or worse, their use seems here to stay. As society slowly changes they may fade away like many practices of the past, to be replaced with some new wave, perhaps the emerging 'smart growth' movement. But whatever comes next, one can only hope that more forethought and consideration will be given for the future macro-level consequences of policy choices.

[1] Beck, John H. 1987. 'Selective Tax Abatements: Do They Work?', in *A Heartland Policy Study*, number 14. Chicago, Illinois: The Heartland Institute, pages 4-5.

[2] Coffman, Richard B. 1993. 'Tax Abatement and Rent-seeking' in *Urban Studies*, volume 30, number 3, page 596.

[3] Wolkoff, Michael J. 1983. 'The Nature of Property Tax Abatement Awards', in *Journal of the American Planning Association*, volume 49, number 1, page 77.

[4] The other four criteria are:

1. The firm should be environmentally sound;
2. It should be small to medium size, to avoid a situation where the city becomes dependent on one industry, and to maintain the character of the community;
3. It should offer wages and benefits that on the average meet or exceed the average in the community, so that as many people as possible have the opportunity for better paying jobs with attractive benefits;
4. A cost benefit analysis should show a significant, positive impact on local units of government in order to keep property taxes as low as possible for everyone.

Taken from "Statement of Policy and Procedures: Tax Exemptions and Incentives for Economic Development", City of Lawrence.

[5] Mathis, Joel. 2001. "Panel Moves to End 'Charade'", in *Lawrence Journal World*, May 10, 2001.

[6] Guskind, Robert. 1990. 'The Giveaway Game Continues', in *Planning*, volume 56, number 2, page 6.

[7] Beck, 'Selective Tax Abatements' page 8.

[8] Wasylenko, Michael J. 1985. 'Business Climate, Industry and Employment Growth: A Review of the Evidence', in *Metropolitan Studies Program, Occasional Paper No. 98*. Syracuse, New York: Syracuse University.

[9] Krumholz, Norman. 1991. 'Equity and Local Economic Development', in *Economic Development Quarterly*, volume 5, number 4, page 294.

[10] Guskind, 'The Giveaway Game' page 6.

[11] Krumholz, 'Equity and Local Economic Development' page 294.

[12] Ibid.

[13] Chinn, Joseph J. 1989. 'The Economic Impact of Property Tax Incentives' in *ORER LETTER*, volume 3, number 1. Urbana-Champaign, Illinois: Office of Real Estate Research at the University of Illinois.

[14] Wolkoff, 'The Nature of Property Tax' page 83.

[15] Wolkoff, 'The Nature of Property Tax' page 83.

[16] Eisinger, Peter. 1988. *The Rise of the Entrepreneurial State*. Madison, Wisconsin: University of Wisconsin Press, page 153.

[17] Burnier, DeLysa. 1992. 'Becoming Competitive: How Policymakers View Incentive-Based Development Policy', in *Economic Development Quarterly*, volume 6, number 1, page 22.

[18] Ibid., page 22.

[19] Ledebur, Larry C. and Woodward, Douglas. 1990. 'Adding a Stick to the Carrot: Location Incentives with Clawbacks, Recisions, and Recalibrations' in *Economic Development Quarterly*, volume 4, number 3, page 227.

[20] Krumholz, 'Equity and Local Economic Development' page 294.

[21] Peckol, 'Tax Abatements', page 358.

[22] Fisher, Peter S. and Peters, Alan H. 1998. *Industrial Incentives: Competition Among American States and Cities.* Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research. Page 14.

[23] Bartik, Timothy J. 1997. Discussion as part of 'Proceedings of a Symposium on: The Effects of State and Local Public Policies on Economic Development', in *New England Economic Review*, March/April 1997, page 67.

[24] Bartik, Timothy J. 1991. *Who Benefits from State and Local Economic Development Policies?* Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, page 40-43.

[25] Ibid., page 38, 57.

[26] Wasylenko, Michael. 1997. 'Taxation and Economic Development: The State of the Economic Literature', Federal Reserve Bank of Boston, *New England Economic Review*, March/April 1997, page 38.

[27] Ibid., page 45. See References.

[28] Netzer, Dick. 1997. Discussion as part of 'Proceedings of a Symposium on: The Effects of State and Local Public Policies on Economic Development', in *New England Economic Review,* March/April 1997, page 134.

[29] Ibid., page 200.

[30] Anderson, John E. and Wassmer, Robert W. 2000. *Bidding For Business: The Efficacy of Local Economic Development Incentives in a Metropolitan Area*. Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, page 163.

[31] Ibid., page 170.

[32] Ibid., page 160.

[33] Garreau, Joel. 1991. *Edge City: Life on the New Frontier*. New York: Anchor Books.

[34] Anderson and Wassmer, *Bidding for Business*, page 169.

[35] Heartland Institute. 1995. '100+ Economists Urge: End Economic War between the States', news release, September 20. Palatine, Illinois.

References and Bibliography

Anderson, John E. and Wassmer, Robert W. 2000. *Bidding For Business: The Efficacy of Local Economic Development Incentives in a Metropolitan Area*. Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research.

Bartik, Timothy J. 1989. 'Small Business Start-Ups in the United States: Estimates of the Effects of Characteristics of States', in *Southern Economic Journal*, volume 55, pages 1004-18.

———. 1991. *Who Benefits From State and Local Economic Development Policies?* Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research.

Beck, John H. 1987. 'Selective Tax Abatements: Do They Work?', in *A Heartland Policy Study*, number 14 in series. Chicago, Illinois: The Heartland Institute.

Bradbury, Katharine L.; Downs, Anthony; Small, Kenneth A. 1982. *Urban Decline and the Future of American Cities*. Washington, DC: The Brookings Institution.

Brown, Lynn; Mieszkowski, Peter; Syron, Richard. 1980. 'Regional Investment Patterns', Federal Reserve Bank of Boston, *New England Economic Review*, July/August, pages 5-23.

Burnier, DeLysa. 1992. 'Becoming Competitive: How Policymakers View Incentive-Based Development Policy', in *Economic Development Quarterly*, volume 6, no. 1.

Carlton, Dennis. 1983. 'The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables', in *The Review of Econometrics and Statistics,* volume 65, pages 440-49.

Carroll, Robert and Wasylenko, Michael. 1994. 'Do State Business Climates Still Matter? Evidence of a Structural Change', in *National Tax Journal,* volume 47, pages 19-38.

Chinn, Joseph J. 1989. 'The Economic Impact of Property Tax Incentives' in *ORER LETTER*, volume 3, number 1. Urbana-Champaign, Illinois: Office of Real Estate Research at the University of Illinois.

Coffman, Richard B. 1993. 'Tax Abatement and Rent-seeking' in *Urban Studies,* volume 30, number 3.

Eisinger, Peter. 1988. *The Rise of the Entrepreneurial State*. Madison, Wisconsin: University of Wisconsin Press.

Fisher, Peter S. and Peters, Alan H. 1998. *Industrial Incentives: Competition Among American States and Cities*. Kalamazoo, Michigan: W. E. Upjohn Institute for Employment Research.

Garreau, Joel. 1991. *Edge City: Life on the New Frontier*. New York: Anchor Books.

Guskind, Robert. 1990. 'The Giveaway Game Continues', in *Planning*, volume 56, number 2.

Krumholz, Norman. 1991. 'Equity and Local Economic Development', in *Economic Development Quarterly,* volume 5, number 4.

Ledebur, Larry C. and Woodward, Douglas. 1990. 'Adding a Stick to the Carrot: Location Incentives with Clawbacks, Recisions, and Recalibrations', in *Economic Development Quarterly,* volume 4, number 3.

Mathis, Joel. 2001. "Panel Moves to End 'Charade'", in *Lawrence Journal World*, May 10, 2001.

McConnell, Virginia and Schwab, Robert. 1990. ‘The Impact of Environmental Regulation on Industry Location Decisions: The Motor Vehicle Industry’, in *Land Economics,* volume 66, pages 67-81.
McGuire, Therese J. and Wasylenko, Michael. 1987. ‘Employment Growth and State Government Fiscal Behavior: A Report on Economic Development of States from 1973 to 1984’, report prepared for the New Jersey State and Local Expenditure, Revenue, and Policy Commission, July.
Munnell, Alicia. 1990. ‘How Does Public Infrastructure Affect Regional Economic Performance’, Federal Reserve Bank of Boston, *New England Economic Review,* September/October, pages 11-33.
Papke, Leslie. 1991. ‘Interstate Business Tax Differentials and New Firm Location: Evidence from Panel Data’, in *Journal of Public Economics,* volume 45, pages 47-68.
Peckol, Loretta L. 1988. ‘Tax Abatements – Revenue or Expense?’ in *Journal of Planning Literature,* volume 3, number 3.
Premus, Robert. 1982. ‘Location of High Technology Firms and Regional Economic Development’, in a staff study prepared for use by the Subcommittee on Monetary and Fiscal Policy of the Joint Economic Committee, Congress of the United States, June 1.
Rubin, Marilyn Marks. 1991. ‘Urban Enterprise Zones in New Jersey: Have They Made A Difference?’, in *Enterprise Zones,* ed. Roy E. Green. Newbury Park, California: Sage Publications, 105-121.
Schmenner, Roger W. 1982. *Making Business Location Decisions.* Englewood Cliffs, New Jersey: Prentice Hall.
Tannenwald, Robert. 1996. ‘State Business Tax Climate: How Should It Be Measured and How Important Is It?’, Federal Reserve Bank of Boston, *New England Economic Review*, January/February, pages 23-38.
Walker, Robert and Greenstreet, David. 1989. ‘Public Policy and Job Growth in Manufacturing: An Analysis of Incentive and Assistance Programs’, paper presented at the 36th North America meeting of the Regional Science Association, Santa Barbara, California, November 10-12.
Wasylenko, Michael J. 1985. ‘Business Climate, Industry and Employment Growth: A Review of the Evidence’, in *Metropolitan Studies Program, Occasional Paper No. 98*. Syracuse, New York: Syracuse University.
Wasylenko, Michael J. and Carroll, Robert. 1991. ‘Employment Growth and State Government Fiscal Behavior 1973 to 1987’, chapter 2 in Therese J. McGuire and Dana Wolfe Naimark (eds.), *State and Local Finance for the 1990’s: A Case Study of Arizona*. Tempe, Arizona: Arizona State University School of Public Affairs.
Wasylenko, Michael J. and McGuire, Theresa. 1985. ‘Jobs and Taxes: The Effect of Taxes on States’ Employment Growth Rates’, in *National Tax Journal,* volume 38, pages 497-514.
Wolkoff, Michael J. 1983. ‘The Nature of Property Tax Abatement Awards’, in *Journal of the American Planning Association,* volume 49, number 1.
Wolman, Harold. 1988. ‘Local Economic Development Policy: What Explains the Divergence Between Policy Analysis and Political Behavior’ in *Journal of Urban Affairs*, volume 10.