

The Fiscal Consequences of Competition for Capital

Peter Fisher
Professor of Urban and Regional Planning
The University of Iowa
Iowa City, IA 52242
319-335-0034
peter-fisher@uiowa.edu

Prepared for the Conference
“Reining in the Competition for Capital”

Humphrey Institute of Public Affairs
University of Minnesota
February 27-28, 2004

The Fiscal Consequences of Competition for Capital

Summary

This paper is about the competition for capital among state and local governments in the US, and how that competition has affected state and local budgets. Do incentives and subsidies in the US generate a fiscal surplus for state and local governments, or are they a net cost? How has the competition for capital in general altered the structure of state and local revenue systems?

For an incentive program or business tax cut to generate a fiscal surplus it must, at a minimum, produce more in direct revenue gains than it produces in revenue losses. But any tax cut or subsidy produces two direct revenue effects: (1) there are gains from the additional business taxes that flow from induced investment (i.e., investment that would not have occurred but for the incentive); and (2) there are losses whenever incentives or subsidies are provided to firms who would have expanded or located their facility in that locality anyway. Whether revenues increase or decrease on balance thus depends crucially on how much of the business growth (investment or jobs) that occurs is actually attributable to the incentives.

We know quite a bit about how taxes and tax cuts affect business investment and location decisions, and from this research we can infer how incentives and subsidies influence those decisions. State and local taxes are a very small part of business costs; as a result, even a substantial cut in taxes doesn't have much effect on a business's bottom line, and therefore on its investment or location choices. We know that a 10% cut in state and local taxes, for example, is likely to produce at best just a 2% to 3% increase in business activity in a state. An incentive or subsidy that produces the equivalent of a 10% tax cut will have a similar result. And we know that, given this low "elasticity" of investment, tax cuts and incentives will not pay for themselves, but instead will produce substantial revenue losses. This is because a large majority of the investment that occurs in a state or locality offering subsidies or tax cuts will occur for reasons that have nothing to do with those subsidies or taxes; this investment will not be induced but will receive the subsidies anyway.

What is the magnitude of costs? Based on the average state and local tax system in the US, each induced job is likely to cost \$7,000 to \$15,000 *per year, every year*. The fiscal picture will only get worse if one adds any direct infrastructure or service costs attributable to the business facility, or the likely net fiscal loss resulting from the ensuing population growth. (Most of the jobs will be filled by in-migrants, and new households add more to service costs than they pay in taxes.) It will also get worse if the incentives or tax cuts were financed by reductions in services that matter to business, for that will cut into or even eliminate the share of investment that is induced.

At first glance, it would appear that these gloomy fiscal results would apply only to things such as business tax cuts, jobs or investment tax credits, or property tax abatements and TIFs that are routinely or automatically granted by local authorities. What about the big incentive packages that are negotiated by states and cities as a result of intense competition with other places for major new facilities? For the "winners," isn't such investment truly induced? Doesn't

the “but for” test work here? Actually, there is substantial evidence that in many of these cases, businesses negotiated for incentives *after* making their decision. This is a major reason why the optimistic conclusions about such mega-deals drawn by Greenstone and Moretti in their recent and much-publicized paper appear to be unwarranted: they assume that the incentives were decisive in all the cases they examined. There are other reasons to discount their results: their measure of net benefits (the increase in property values) ignores the state share of incentive costs (about half) and is based on an unrealistic assumption about the capitalization of local incentives.

Business incentives continue to escalate. In just the eight-year period 1990-98, the average incentive package available to new business investment in 20 states increased from 10% of the gross business taxes to about 30%, and the net tax rate after incentives fell from 4.4% to 3.1%.

Competition for capital can have broader effects on state-local budgets. Competitiveness arguments have been used to justify broad cuts in business tax rates and even cuts in personal income taxes. The results have been a sharp decline in the share of state revenues coming from the corporate income tax, a decline in the average effective state corporate tax rate nationally, and a decline in the overall share of taxes derived from businesses (and a shift to taxes on households). The state-local tax system became noticeably more regressive between 1989 and 2002, with the bottom 80% of households paying an increasing share of their incomes in taxes, while burdens on the top 20%, and especially the top 1%, declined. State and local governments have also become increasingly reliant on fees, which are distinctly regressive, and on tuition rather than taxes to pay for public universities.

Are all these changes in state-local finance really attributable to competition for capital? Probably not. For some who push cuts in business taxes, the underlying agenda may be to shrink government by starving it of resources. For others, the goal may be to relieve tax burdens on upper income groups. Still, arguments about competitiveness are almost invariably the main rationale provided for public consumption. Therefore it is important to show that the “supply-side” claims of those promoting incentives and tax cuts—that they will more than pay for themselves—is a myth. Such policies are costly and wasteful, and recognition of their costs is a first step to reforming incentive programs and limiting their scope.

The Fiscal Consequences of Competition for Capital

Introduction

To state and local officials, competition for capital has become the driving principle underlying economic development policy, and the policy tools most readily available are tax cuts and direct subsidies. Thus this paper is partly about the long-run revenue gains or losses from economic development incentive programs. Such programs are invariably touted as measures to expand the tax base and increase revenues, and officials generally assume that incentives in the long run more than pay for themselves. Is this really the case?

This paper is also about the ways in which competition for capital alters tax and budget policies more broadly. Has the perception by state and local officials that they must constantly compete for investment and jobs changed the structure of state and local tax systems? Has there been a broad shift away from taxes on business? Has this increased the regressivity of state-local tax systems? Have budget priorities shifted as well?

Competition for Capital: The Policy Tools

The need for the broader view becomes clear as soon as one attempts to determine what constitutes an effort to compete for capital. Lets consider the range of possibilities, from the narrowest to the broadest.

Discretionary Incentives

- One-time subsidy packages negotiated with a specific firm.
- Discretionary grant or loan programs provided out of annual appropriations, where the firm must apply for funding. The programs could subsidize capital expenditure, provide free public infrastructure improvements, or pay for job training.
- Discretionary tax abatements and tax increment financing. These programs require no explicit funding, and so have no annual limits statewide.

Entitlement Incentives

- Investment tax credits, jobs tax credits, or R&D credits under the state corporate income tax. Here the firm receives the benefit automatically, provided the investment is in an eligible sector and that the size of the investment or number of new jobs exceeds some threshold. There may be geographic targeting: enterprise zones are the major example.
- Local property tax abatements, where they are largely formula driven, once eligibility criteria have been met.

Tax Cuts

- Competitive tax provisions. These are features of the tax code that apply to every corporation (though not equally) and that do not require investment or job creation on the part of the business, but where there is nonetheless a competition rationale presented to justify the tax expenditure. Examples are single-factor apportionment, exemption of inventories from property taxation, and exemption of fuel and utilities from the sales tax. These tax provisions are often advertised by economic development agencies as reasons to locate in their state.
- Broad-based tax cuts, such as rate cuts, that apply across the board to any business. Again, the arguments made in their favor may differ little from the more explicit development incentives: we have to cut taxes to remain competitive. The arguments may be extended beyond taxes that clearly fall directly on business to cuts in individual income taxes, for example, or the tax on capital gains.

Before addressing the broader effects of competition on tax structure and regressivity, we will explore what we know about the fiscal effects of explicit economic development subsidies: the discretionary incentive programs and the entitlement tax incentives. We will begin by attempting to define what we mean by “fiscal effects” in such cases.

Measuring Fiscal Effects

What is a fiscal benefit? A particular governmental action (such as providing a direct subsidy or cutting a tax) will have a positive fiscal effect if, in the long run, it increases business activity and the new activity adds more in tax revenues than it causes in additional public service costs. There will then be a fiscal surplus to be distributed to the rest of the taxpayers as lower taxes or better services or both. (If the fiscal surplus materializes only after some period of time, the discounted value must be positive.) Public service costs can rise in a number of ways, from direct expenditure benefiting new businesses, to increased expenditure to serve new populations induced to in-migrate, to rising labor costs for government because of upward pressure on wages and land prices.

This formulation ignores the distributional question: How is the surplus distributed among the population? As we will see, distribution is an important issue, but for now we will focus on measuring the fiscal surplus. The logical place to begin is with the direct revenue from a new business. When an incentive program is put in place, subsequent investment will produce both direct revenue gains and direct revenue losses. The investment that would not have occurred but for the incentive produces a gain; the remaining investment produces a loss, to the extent that it received the incentives (because they were entitlements or because they were awarded on the false belief that they were necessary). As we will see, we have some pretty good estimates of direct fiscal effects.

What about the direct expenditure necessitated by new business? It is of course very difficult to measure or generalize about the local investment in infrastructure, or the ongoing increases in expenditure for services such as police and fire protection, that is caused by new business activity. It is a common assumption that these expenditures are not large, and that business activity generally produces a sizeable fiscal surplus. That's certainly the argument made for seeking new commercial and industrial tax base—that this will permit tax relief for residents.

Indirect effects are even more problematic. Here we must estimate the net fiscal effects of growth in the labor force or reduction in the local unemployment rate, including demands for additional services and the additional taxes produced by in-migrants or newly-employed residents. These effects come about not only from the employment in the business receiving the subsidy. New investment may also stimulate business expansion in supplying sectors, or in demanding sectors (who previously had to import inputs).

When new jobs are created in a community, those new jobs must be filled by persons in that community's labor market in one of four ways:

1. By drawing people from the ranks of the unemployed within the labor market
2. By drawing people into the area's labor force who were not previously seeking work
3. By inducing people to migrate into the labor market
4. By drawing people away from existing jobs (which are then left unfilled; if these jobs are, in turn, filled in one of the other ways, such as through in-migration, then the ultimate effect of the new jobs is simply in-migration)

In other words, new jobs can have four effects: lowering the unemployment rate, increasing the labor force participation rate, inducing in-migration, or displacing existing jobs. Research on the effects of "labor demand shocks"—a sudden increase in jobs as a result of a new plant or plant expansion—indicates that for every 100 new jobs in a region, about 7 will be filled from the ranks of the unemployed, about 16 by drawing existing residents into the labor force, and the remaining 77 from in-migration.¹ These are the long-run effects (after several years); in the short run, there may be a more substantial reduction in unemployment, but as in-migration continues in response to the new job opportunities, the unemployment rate will creep back up again. Research also shows that such labor demand shocks will not have a significant long run effect on wage rates for a given occupation;² thus there will be little or no job displacement.

If residential development does not pay its way—and research generally shows that it does not—then in-migrants represent a fiscal drain.³ The secondary effects of incentive-induced growth could thus be negative, since most of the jobs will in the long run be filled by in-migration. The remaining jobs, filled by existing residents, should produce a fiscal surplus, since those residents will presumably be paying more taxes but consuming the same (or perhaps less) in services. But this surplus (from 22% of the jobs) will probably not be enough to offset losses from the remainder.

There is some evidence on the net fiscal effects of concomitant expansions in employment and population. A study of Montgomery County, Maryland, concluded that for manufacturing facilities, distribution centers, small office buildings, and even R&D facilities, the

direct fiscal surplus from the business investment was insufficient (or just barely sufficient) to offset the negative fiscal effects of accompanying residential growth.⁴ Only large, white collar office facilities generated a net surplus. Furthermore, Ladd and Yinger found that population growth produced an increase in the cost of city services.⁵ This is because as cities grow, labor and land costs rise, and congestion increases production costs, and these effects outweigh the limited cost reductions achieved through economies of scale. The issue is not completely settled, however, due to the methodological issues that abound in performing a fiscal impact analysis.

This raises an obvious question: If a new manufacturing or distribution facility under normal conditions does not generally produce a large enough fiscal surplus to offset the fiscal losses produced by the residential development that follows that expansion, or produces only a slight net surplus, how could we expect *subsidized* business expansion to pay for itself?

The upshot is that it may well make sense to focus our attention on the direct tax effects of incentives. While pro-incentive or pro-growth advocates are fond of adding generous helpings of multiplier effects to their analyses, when we consider all of the evidence it seems likely that the fiscal consequences of these multiplier effects, and of the effects of population growth induced directly by the plant itself, are unlikely to be positive. (The exception is probably a project creating high-paying, white-collar jobs.) When combined with the fact that we also must ignore the direct public expenditure effects of business investment, because we can't measure it, the direct tax consequences of incentives almost surely provide a more favorable view of the fiscal effects of incentives than would a more comprehensive analysis. If the direct business tax effects are negative, it is quite unlikely that the overall effects are anything but even more negative.

The way for a community to attempt to ensure that the direct tax effects are positive, of course, is to (a) make sure you don't give away all of your tax revenue to get the facility in the first place or (b) make sure the facility stays around long enough to pay a significant amount of taxes, and (c) provide incentives only in cases where the incentives are decisive. The trend is to provide ever more generous incentives, and we have already seen instances where states in effect give away everything, including the personal taxes of the employees (Michigan's Renaissance Zones, Pennsylvania's Keystone Opportunity Zones). And though everyone claims to be successfully applying a "but for" test in their discretionary incentive programs, given the asymmetry of information in negotiating subsidies it is highly unlikely that this is the case.

So what do we know about the direct tax consequences of subsidies and incentives? We look first at the most publicized subsidies—the large, package deals offered to land a particular plant—and then at the tax incentives and tax cuts that function as entitlements, where most of the research has been focused.

The Package Deals

The large negotiated incentive packages represent the best case scenario for positive fiscal effects because there is a greater probability that the incentive package may be decisive. The community is presumably exercising discretion, not simply handing out incentives by

formula to all comers, and there is at least some indication that the community would not get the business without incentives, in light of what the competing locations have to offer, in economic advantages as well as incentives. While the costs per job have escalated dramatically, proponents may argue that the costs are not really costs at all, because the firm and the employees (and all the multiplier effects) will generate tax revenues far exceeding the incentive cost.

Considerable attention has been paid recently to a paper by Greenstone and Moretti for the National Bureau of Economic Research that purports to demonstrate that communities benefit from offering subsidies to large plants.⁶ Greenstone and Moretti looked at a sample of major facility locations reported in *Site Selection* magazine, which identified not only the county that “won” the plant but the one or two runner-up counties as well. The authors found that the winner and loser counties had similar rates of income growth prior to the plant opening, but that the winner counties subsequently experienced a statistically significant boost in the rate of growth of wages and also of property values, as well as government revenues and expenditures. Princeton economist Alan Krueger, in a column in the *New York Times* last December, praised the study as “compelling” and claimed that it showed that cities that offer generous incentive packages and win a large facility “seem to benefit from the arrangement.”⁷ The clear implication is that even incentives amounting to hundreds of thousands of dollars per job are worth the expense.

A closer look reveals that this study tells us less than it might appear with respect to the fiscal consequences of such deals. The results in terms of economic growth are not surprising; what they show is that, comparing similar counties, the one that gets a new plant does better than the one that doesn’t—the growth trends in wage levels get a bump up. It would be surprising, in fact, if they didn’t. Nor is it remarkable that both revenue and expenditure rose in the counties getting the economic boost from the new plant; one would expect that population growth would require additional services, and local governments must balance their budgets. Expenditures, at least in some categories, exceeded the increase in population, but we do not know if this reflects better services or higher costs of production. In sum, the results do not tell us whether the plants generated a fiscal surplus. There could well be higher taxes on residents and other firms to support the rising expenditures necessitated by the new plant and its employees.

What about the finding that property values increased? Greenstone and Moretti argue that the net effects of the new plant—the increased job opportunities and increased economic activity generally, as well as the cost and revenue effects of the subsidies and increased tax base—will be capitalized into property values. If property values rise, this indicates that the net effect of the new plant has been positive. In other words, the cost of the incentives was more than offset by the other benefits of the new facility. Note that Greenstone and Moretti do not claim that the *fiscal* benefits exceed the *fiscal* costs. Local government could well be facing increased expenditure demands that exceed the revenue gains, forcing higher tax rates for the same level of service; but as long as these fiscal losses are more than offset by other gains that translate into greater demand for land and housing, property values will rise.

Greenstone and Moretti acknowledge that they are looking at the local benefits of new plant location, and that state government is paying part of the incentive cost. This is not a minor

point. In my extensive research on economic development subsidies with Alan Peters, we found that a typical package of state and local grants, loans, tax credits and tax abatements granted to a manufacturing firm (and most of the plants in the G&M study were manufacturing) consisted in about equal portions of state subsidies and local subsidies.⁸ In enterprise zones, about 59% of the typical package in the 13 states we studied consisted of state incentives.⁹ The important point here is that local property values *may* reflect most or all of the benefits of a plant location, but will definitely not reflect about half of the costs (more in enterprise zones), since state costs will not be capitalized at all into local property values. Furthermore, they assume complete capitalization of local incentive costs, which is quite doubtful. Previous studies of property taxes have generally found only partial capitalization. Their study therefore does not tell us, after all, whether the locality earns a fiscal surplus, nor does it tell us whether the overall benefits to the state as a whole exceed the state and local subsidy costs, which is the most important question.

So what does this article really tell us about the wisdom of incentive policy? We don't know the size of the winning and losing subsidy packages, nor do we really know if the subsidy offered by the winning county was decisive. We do not know whether the firm had already made up its mind where to go on the basis of economic considerations and was simply playing one community off against another to gain concessions. If the incentives didn't matter, they were not a good deal no matter how much wages and property values rose.

We do know that even these negotiated incentives are not always decisive. For example, a debate is currently raging in Nebraska over a package of \$75 million in tax breaks to induce Union Pacific Railroad to move 1,038 jobs from St. Louis to Omaha. While UP told Nebraska officials that they would not move the jobs without the incentives, they were telling a different story in St. Louis, where company officials stated that the move was motivated by "critical strategic considerations, not tax incentives," and that it made sense "from a synergy viewpoint" because the company's IT staff was already in Omaha.¹⁰ And in Iowa in the early 1990s, when citizens took county supervisors to court over a subsidy to a planned IPSCO steel plant, the company was asked if they would reverse their decision to locate in Iowa if the lawsuit were successful; they said they would not. They admitted publicly that the incentives made no difference. It is not often that we are provided such insights into corporate behavior, but it would be foolish to imagine that such instances of large incentives being granted unnecessarily are rare.

Furthermore, these are short run effects: the study looked at the first five years after a plant location. The long run effect on property values may be lessened as the local housing market responds to the initial increase in demand brought about by the expansion of job opportunities. And the long run effects could be wiped out altogether if the plant leaves. As my colleague Alan Peters has pointed out, many of the major disasters in the incentive wars have occurred after five years, including the United Airlines facility in Indianapolis that closed, leaving the city holding the bag for \$320 million in subsidies.

More importantly, the results of these findings for a non-random sample of the largest package deals tell us little about the fiscal consequences of incentive competition in general, including the more modest one-time deals that are far more numerous, and including all of the entitlement incentives.

Entitlement Tax Incentives & Tax Cuts

Let's turn our attention now to the wide range of tax cuts and tax incentives that operate as entitlements. Here there is not even a pretense of the firm making a "but for" determination. There is simply a belief or hope that the tax cuts will stimulate some growth that would not have occurred otherwise. But here we also have a more researchable question: Do places that offer lower taxes, or tax incentives, grow faster than other places, controlling for all the other factors that influence investment and location decisions?

This question has been extensively researched. We need not review that literature here, except to say that some have argued that a consensus position has emerged that the interstate elasticity of economic activity with respect to taxes on business is somewhere between -.1 and -.6, with the most likely figure -.2 or -.3.¹¹ This position is not without its challengers. But let's proceed for now with the assumption that -.2 or -.3 is a reasonable estimate. This means, for example, that a 10% cut in taxes would produce a 2% to 3% increase in economic activity. What does this tell us about the fiscal gains or losses from incentives or tax cuts?

Bartik has argued that the fiscal effects of tax cuts are bound to be negative.¹² He shows that tax revenues will increase approximately by the percentage increase in jobs induced by the tax cut, and decrease approximately by the percentage reduction in the tax rate. (The truly induced jobs produce revenue gains; the tax cut on all the jobs that would have been there anyway, the non-induced employment, produces revenue losses.) He then arrives at the formula for the net change in revenue per new job, expressed as a function of the elasticity E:

$$\text{Revenue gain (or loss) per new job} = \text{revenue per job} \times (1 + 1/E)$$

For the revenue per job term, Bartik substituted the national average state-local direct business tax revenue per job across all business sectors in 1989, which was about \$1,620. Assuming an elasticity of -.3, the average fiscal effect of a new job would then be -\$3,780. Updating this estimate to 2003, we find that business tax revenue per job is now probably between \$3,000 and \$3,700, depending on which taxes are included.¹³ Using Bartik's elasticity figure again (-.3) and the lower revenue figure, annual revenue losses for each new, induced job would be about \$7,000. If one agrees with Wasylenko that -.2 is a more likely elasticity, and uses the higher revenue figure (\$3,700), the fiscal losses more than double, to \$14,900.

Let's be clear what these numbers mean. If a state embarks on a program of tax incentives that ends up attracting 100 new jobs that would not have been there but for the incentives, the state and its local governments should expect to have \$700,000 to \$1,490,000 *less* in business tax revenues *each and every year* (assuming an elasticity of -.2 to -.3) than they would have had without the tax incentive program. All this to provide an estimated 77 jobs to people who have migrated to the state and 23 jobs to existing residents who otherwise would have been unemployed or not in the labor force.

The importance of Bartik's formulation is that it effectively undercuts the arguments of public officials and development practitioners that job creation is not only good policy, its free policy—we can create jobs and add revenue at the same time. But let's look at the competition

for business as if communities were offering sites at varying “tax prices,” where a tax price is the cost to the business of a unit of public services. The problem for communities is that in this competition for capital, they are operating on an inelastic demand curve. Basic economic analysis tells us that when you cut price in the face of inelastic demand, you lose revenue.

States and communities who respond to the competitive environment by offering ever more generous incentives, as has been the pattern for the past two decades, on the grounds that this generosity will be rewarded with more investment, are in effect saying “We lose a little more on each plant, but we’re going to make it up in volume.” Of course larger incentives are more effective, but total fiscal losses rise proportionately. This is because the gains from additional induced jobs continue to be offset by ever larger losses from all the jobs that would have been there anyway but now are paying little in taxes. It can be shown that the percentage of new jobs that are actually induced can be found by multiplying the elasticity by the percentage cut in taxes.¹⁴ With an elasticity of $-.3$ and a fairly typical incentive package amounting to a 30% cut in taxes, only 9% of the new jobs arriving in a community will be attributable to the tax cut. The incentives provided to the other 91% are a pure waste of money.

If we are evaluating the fiscal consequences of incentives, however, we would want a formulation that measures the effects of cuts in *marginal* tax rates on the *gross flow* of economic activity (annual establishment births, for example). Most of the research on taxes and business activity, however, has measured changes in the average level of business taxation and changes in the level of employment. My own research with Alan Peters has shown that cuts in marginal tax rates have identical long run effects to cuts in average tax rates only under the fairly restrictive condition that the marginal rate cuts are constant and permanent. But most incentives are neither; they are one-time grants or the equivalent in tax expenditures, or they are of limited duration, and generally front-loaded (the percentage abatement, for example, declining over time.)

We have also shown that one cannot generalize from the fiscal effects of providing an incentive for one firm, to the fiscal effects of adopting an ongoing incentive program that will apply to the stream of establishments entering the community in all future years. Here communities face an additional problem (beyond the inelasticity of demand): the firms they do succeed in attracting don’t stay forever. The argument for incentives rather than permanent cuts is made on fiscal grounds: they are front-loaded or temporary precisely because officials count on the firms paying the full rate in the future.

But local officials appear to routinely overestimate the longevity of business establishments. There is in fact a substantial gross flow of establishments into and out of communities every year. Data from the Census Bureau’s Standard Statistical Establishment List show that on average during the early 90s, establishment births and moves into a particular zip code (approximating an enterprise zone) averaged about 9.5% of the existing number of establishments per year; rates of establishment deaths or moves out were about 1.5 percentage points higher.¹⁵ Non-enterprise zone zip codes showed even higher rates of establishment births and deaths. Such high rates of turnover imply average lifespans that are not all that long.

There are only a few studies of the survival rates of business establishments. One study showed a median survival time of about 8.3 years for dependent establishments (branch plants)

in goods-producing sectors.¹⁶ This overstates the case to the extent that the survival distributions in the study cited were driven by large numbers of new, small businesses—the mean employment size was about 16—while incentives are generally focused on larger firms and branch plants. Studies have consistently found that the larger the initial employment size, the higher the survival rates. Data from the tax abatement program in Ohio, however, for 1,581 abatement agreements established between 1990 and 1997, shows that the median size establishment granted abatements for the creation of jobs was only about 70 employees, not as large as one might think.¹⁷ Another study, moreover, indicated that the median survival rate even for larger establishments (over 50 employees) was only in the neighborhood of eight years.¹⁸ And this is at the national level, where only births and deaths matter. At the local level, relocations would reduce these rates.

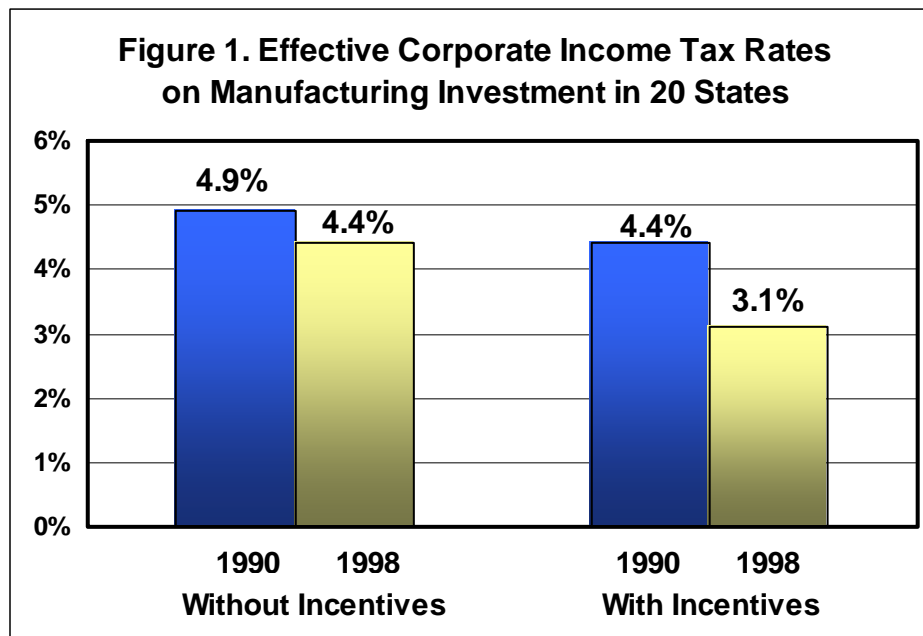
What is the significance of this? Property tax abatements are often spread over an 8 to 10 year period, and states often grant generous tax credits that are not refundable and therefore cannot be used up in the first year but must be carried forward (sometimes for as long as ten years), eliminating tax liability in all of those years. If the median life expectancy of a new establishment in a community is about 8 to 10 years, this means that over half of the establishments granted abatements or credits will no longer be around to pay the full tax rate.

Even these estimates of the direct revenue losses from tax incentives or business tax cuts are overly optimistic. The reason is that they are based on research showing the elasticity of business activity with respect to tax cuts, *holding all else constant*, including the level of public services. State and local governments must balance their budgets, so that business tax cuts, in practice, must be accompanied either by reductions in services or increases in taxes on other property or individuals. There has been substantial research showing that business activity is responsive to service levels as well, and some have even argued that tax *increases* accompanied by spending increases on non-welfare services would have a *positive* effect on growth.¹⁹ Thus in the real world, incentive programs that come at the expense of public services would not generate even the modest levels of induced investment assumed above. The elasticities would be lower, probably close to zero, which means the direct fiscal effects are much higher (remember that with an elasticity of -1 , the average annual loss rises to \$33,500 per job). With a zero elasticity, of course, the net total fiscal effect is simply the total expenditure on incentives, since there are no induced jobs.

Some readers might say at this point, “But wait; you keep talking about elasticities of -0.2 or -0.3 , or even lower, but those are interstate or inter-metropolitan elasticities; we know that taxes have much larger effects on location within a metropolitan area.” It is true that economists have long argued that taxes are most likely to alter location decisions within a given metropolitan area, since the other determinants of location (labor cost, utilities, access to markets) will be the same throughout the area, leaving room for differences in less significant costs (such as local property tax differentials) to tip the balance. It is also true that the empirical research has generally borne this out, though there are far fewer studies and a wider range of elasticities. But all this tells us is that incentives are most likely to work precisely where they are least justified—moving jobs around within the same labor market. And while the higher elasticities (above 1.0) mean that a particular locality may indeed gain revenue, this will come at the expense of its neighbors. Even worse, to the extent that the state contributes to incentive packages, state government will be

paying cities to engage in a beggar-thy-neighbor strategy. Surely the sensible way to approach the fiscal issue is to ask whether a state and the state's local governments, in the aggregate, gain or lose. And the answer is that they lose.

Incentive programs in the last 20 years have assumed a life of their own; they are viewed as essential policy in good times and bad, in poor states and rich states. And state and local officials see themselves in a never-ending arms race. The results have been documented in terms of the escalating cost per job of the most publicized incentive battles for large facilities. But the same thing is happening, albeit much more quietly, with the more routine incentive programs that function as entitlements. In my research with Alan Peters we have modeled the state and local tax systems and incentive programs in 20 states, and were able to measure the average effective tax rate on a new plant built by a multi-state manufacturing firm in each of these 20 states in 1990 and 1998. We also measured the effect of state and local tax incentives in lowering this effective rate. The results are shown in Figure 1 below.



The effective tax rate before incentives declined during this period by about half a percentage point, but the rate after incentives declined even more, by 1.3 percentage points. In just eight years, in other words, there was a 30% drop in the effective tax rate on new investment. Over this eight year period, the average incentive package rose from about 10% of gross state-local taxes, to about 29%.²⁰

The Larger Consequences of Competition

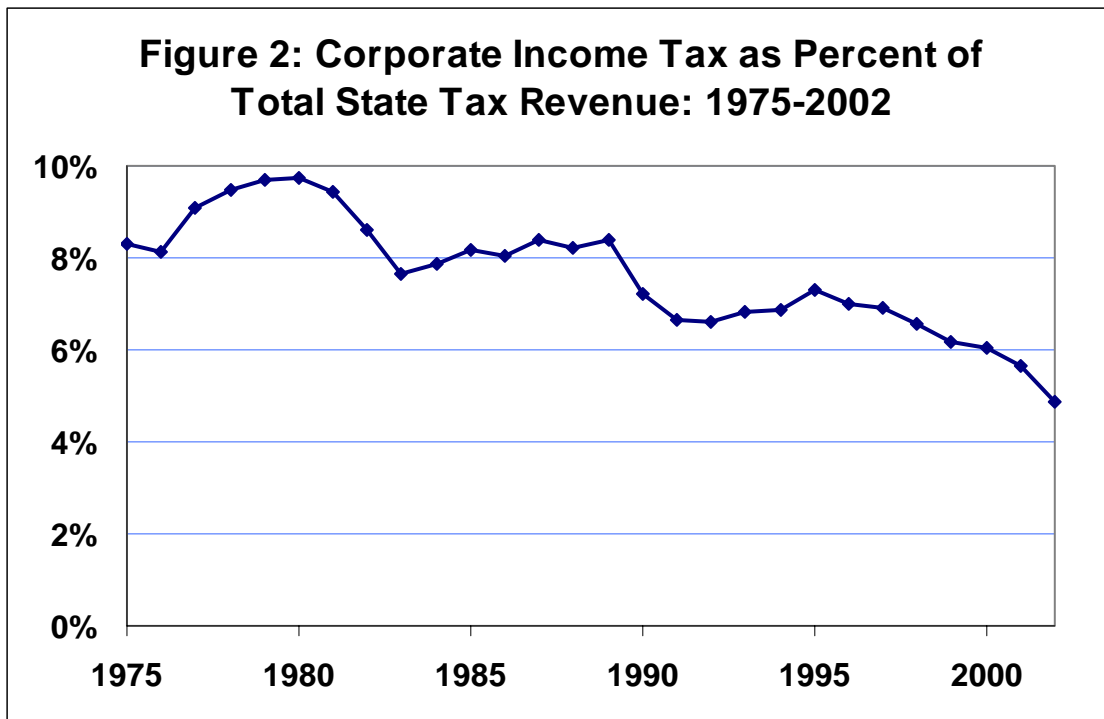
We turn now to the effects of competition on tax policy more generally. It is clear from debates about tax policy in the last decade that competitiveness arguments are at the forefront. How have these arguments changed business taxation, and state-local taxes and budgets?

The Decline of the Corporate Income Tax

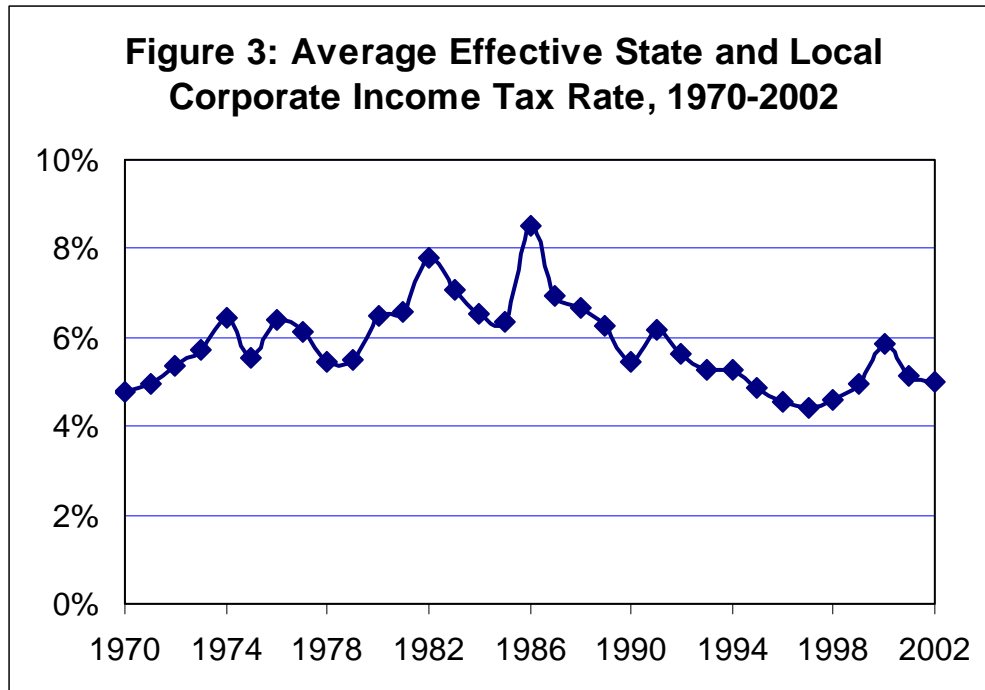
One of the most significant trends in the past 20 years has been the shift in apportionment formulas away from the standard three-factor towards formulas that weight sales more heavily.²¹ As recently as 1980, only five states weighted sales more heavily; by 1999, this number had increased to 33.²² The most common formula in 1999 involved double weighted sales (24 states); four states used single-factor apportionment (100% on the basis of sales) exclusively, and another four allowed it as an option or allowed it for certain sectors. These measures are invariably touted as a means to make the state more attractive to exporting firms, and this argument continues to be used as more states consider moving towards single-factor apportionment.

The effects of single-factor apportionment are to reduce state tax revenues. Massachusetts, which adopted single-factor in 1996, lost an estimated \$182 million in FY2001 as a result, while Illinois (1999) loses \$95 million, and Pennsylvania lost \$89.7 million in FY2002 from their triple-weighted sales formula.²³

What is the end result of the proliferation of incentives, the shift towards single-factor apportionment, and other measures that cut the effective state-local tax rate on business? The clearest picture emerges when we look at the decline in corporate income tax revenues as a share of total state-local tax revenue. Figure 2 below shows that this share peaked near 10% in 1979-80, dropped to around 8% through the rest of the 1980s, and then began a precipitous decline to just under 5% by 2002.²⁴



During the past 25 years there has also been a decline in the average effective state-local corporate income tax rate, as measured by total state-local corporate income tax collections divided by corporate profits. These estimates have been prepared by Steve Maguire of the Congressional Research Service, and are shown below in Figure 3.²⁵ The reason for the uptick in rates in 1999-2001 is not obvious.²⁶ The decade-to-decade trend remains pretty clear, however. The rate averaged 5.6% in the 1970s, 6.9% in the 1980s, and 5.1 % from 1990 through 2002.



Is all of this decline in the corporate income tax due to competitive pressures to cut rates, pursue exporting firms through heavier weighting of sales factors, and adopt every more generous credits and exemptions? No it isn't. Another factor that cannot be ignored is the increasing use of tax avoidance schemes. The most notorious of these are the PICS (passive investment companies) whereby a firm establishes a shell subsidiary in Delaware, transfers rights to the store name or logo or trademark to the subsidiary. The subsidiary then charges royalties to the parent firm's operating establishments across the country for use of this intangible property, effectively transferring profits from states where the firm actually has a presence (because the royalty expense is deducted from profits in those states) to Delaware, which does not tax royalty income.²⁷ Even here, competitiveness arguments are made. When the governor of Iowa proposed closing this loophole (which costs the state an estimated \$25 to \$40 million annually), legislative leaders rejected the idea on the grounds that it was a tax increase on business, and the Iowa economy could not afford to drive business out of the state by increasing taxes.

The Shift Away from Business Taxes

State and local tax policy since 1980 has shifted the composition of taxes away from taxes with an initial impact on business. The share of state and local taxes paid by businesses declined from 46.5% in 1980 to 44.0% in 1990 and to 40.7% in 2000, before rising back to 42.5% in 2003 (as the recession and earlier income tax cuts eroded personal income tax revenues dramatically).²⁸ State and local taxes paid by business also declined as a percent of personal income, from 4.9% in 1980 and in 1990, to about 4.4% in 2000 and in 2003. The pattern is the same if one measures the burden relative to private sector GDP. Importantly, the taxes with an initial impact on business that have shown growth since FY2000 are overwhelmingly the taxes that are most likely to be shifted forward to consumers—property taxes (much of which are on rental property) and sales and excise taxes—and the payroll taxes, which are generally thought to be borne by employees.²⁹

The Increasing Regressivity of State and Local Taxes

Has the decline in the importance of the corporate income tax, and the shift away from business taxes generally, affected the distribution of the state local tax burden? We do know that state and local tax systems are, by and large, quite regressive. In 1989, the lowest 20% of families by income paid, on average, 10.2% of their income in state and local taxes, while the top 20% paid only 7.5%, and the top 1% just 5.5%. And indeed they have become more regressive in the past 15 years: by 2002 the effective tax rate on the bottom two quintiles had risen by about a percentage point. The effective rate on the top 20%, by contrast, had fallen slightly, from 7.5% to 7.3%, and the tax rate for the richest 1% had fallen from 5.5% to 5.2% (see Table 1 below).

Table 2: State & Local Taxes as Shares of Family Income

	Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Top 20%	Top 1%
1989	10.2%	9.4%	8.8%	8.4%	7.5%	5.5%
2002	11.4%	10.3%	9.6%	8.8%	7.3%	5.2%
Change	+1.2%	+0.8%	+0.7%	+0.4%	-0.1%	-0.3%

Note: tax burdens are shown after the federal offset; that is, these are the net burdens on families after taking into account the deductibility of state and local taxes on federal returns for those who itemize (generally higher income taxpayers).

Source: Institute on Taxation and Economic Policy, Washington, D.C. Data underlying chart on page 12 of *Who Pays? A Distributional Analysis of the Tax Systems in All 50 States*, 2nd Edition, January 2003.

What happened between 1989 and 2002? In the early part of the decade, many states raised taxes to solve budget shortfalls brought about by the recession. The tendency was to increase regressive taxes, mostly sales. When the economic boom of the latter 1990s started producing large surpluses, states cut taxes, but instead of rolling back the regressive increases of the early 1990s they slashed the only progressive tax at the state and local level—the personal income tax. The result was a substantial shift in tax burdens by the end of the decade from the

highest to the lowest income taxpayers, and an increase in overall regressivity. This trend has continued during the recession and budget crises of 2001-2003. Many states increased taxes during this period, but 62% of the state tax increases from late 2001 through 2003 were in regressive taxes. State sales and excise taxes were increased \$9.9 billion during this period, while individual income tax increases amounted to \$3.4 billion, and corporate income taxes to \$3.7 billion.³⁰

Has competition for business played a role in these trends? With the corporate income tax no longer a significant source of state revenue, there is evidence that the battleground has shifted to the personal income tax. Increasingly, one is hearing arguments that the top personal income tax rate is too high, or that personal income taxes in general must be cut, in order to attract business. There has been little research directly addressing the question of whether or not interstate differences in personal income tax rates affect economic growth, but there is reason to be highly skeptical. For corporations, at least, even if they treated personal taxes as a labor cost—which is quite doubtful—differences in state income tax rates produce trivial differences in total business costs.³¹ It simply defies logic that location choices would be altered by such small differences in the after-tax cost of living of a firm's employees, or that a corporation would move its facilities to a neighboring state so that its CEO could save a little in state income taxes. Yet these arguments are being made.

These trends have not produced major shifts in the composition of state-local tax systems, other than the decline in the corporate income tax. The typical state tax system relies primarily on a mildly progressive personal income tax and a regressive sales tax that includes a limited number of services in the tax base. Such a tax system (particularly if the income tax is not indexed) will become more progressive over time if left to its own devices, as inflation pushes people into higher tax brackets and the average income tax rate rises slowly, while the shift in consumption patterns from goods to services, combined with increasing internet purchases of goods, steadily erodes the sales tax base. Thus the effects of recent tax policies—cutting income taxes and business taxes in good times and raising regressive taxes in bad times—will not necessarily show up as a dramatic shift from income to excise taxes.

Other Shifts in State and Local Revenue Sources and Spending Priorities

It would be reasonable to hypothesize that the competition for business investment and jobs has had other effects on state and local budgets. Has it shifted revenues increasingly to current charges, which are among the most regressive of financing tools? There was a small increase during the 1990s in the share of own-source general revenue coming from current charges (up from 17.3% in 1992 to 18.1% in 2001).³² There is some evidence that this trend has continued during the recession. According to the National Conference of State Legislatures, at least 30 states raised fees in 2002 and 2003 to the tune of about \$3.6 billion, and this does not include fees increased by independent agencies.³³ Most importantly, it does not include tuition at public universities; some 34 states raised tuition for the 2003-04 year by more than 10%.

Have state budgets increasingly focused on spending that more directly benefits business, such as infrastructure (streets, airports, water, sewer), and police and fire protection, and away from social services, education, and natural resources? While such effects may be occurring, we

do not have a good counterfactual—what would spending priorities have been in the absence of the climate of competition? If these effects have been occurring, they have not yet revealed themselves in noticeable shifts in overall spending since the start of the 1990s.

The Role of Competition for Capital

What have we concluded so far?

- The one-time package deals negotiated by states and cities may or may not be a good deal fiscally for local governments or for state governments; the Greenstone and Moretti paper has certainly not established that they are, and there is good reason to believe many of these incentives have been granted unnecessarily.
- Entitlement incentives and tax cuts are quite costly to state and local governments, and this is probably where the bulk of economic development expenditure is found. Given the lack of responsiveness of economic activity to differences in taxation, state and local governments must spend large amounts of tax revenue for small gains in employment, and when the tax cuts are accompanied by service cuts it is likely that even these small gains disappear. Incentive wars and corporate income tax cuts in the name of economic development show no signs of abating.
- The corporate income tax is in danger of disappearing at the state level, and business taxes in general have declined somewhat in importance.
- State and local tax systems have become more regressive; tax cuts in the latter 1990s were almost entirely focused on the income tax, while tax increases during the recessions of the early 1990s and of 2001-03 were concentrated on regressive consumption taxes. Governments are making increasing use of charges for services.

Let us not be too hasty, however, in attributing all of these fiscal effects to interstate and interlocal competition for capital. If we are looking for culprits, there are other plausible candidates. First of all there, there are the “starve-the-beasters,” to use Paul Krugman’s term to describe the apostles of the strategy favored by Ronald Reagan’s budget director, David Stockman.³⁴ The idea here is first to pass large tax cuts (because they are demonstrably popular) without specifying any service reductions, and then to slash spending on the grounds that we cannot afford to finance (selected) services. We shrink Leviathan by starving it. While this is arguably the underlying motivation behind Republican-led federal tax cuts ever since the early 1980s, it is clear that there are many in state legislatures who have been pursuing the same strategy in recent years.

If starving the beast is the underlying agenda, then competitiveness arguments are merely a convenient public rationale. A starve-the-beaster does not have to believe that tax cuts “work,” though he may believe so. He has merely to convince others that this is a plausible argument.

Another potential culprit at the Federal level, as Krugman points out, is the supply-sider. Here tax cuts are favored on the grounds that by relieving the tax burden on investment, we will generate more of it, whether by expansion of existing firms or attraction of new ones. The economic growth that ensues will generate sufficient new tax base to ultimately pay for the tax cuts. The Bush administration has in fact built quite optimistic supply-side growth effects into its models for projecting the size of the federal deficit.

At the state level, supply side arguments (that business tax cuts will pay for themselves) are even less plausible, due to the openness of a state economy. One hears the supply-side arguments anyway; that past tax cuts have not only failed to pay for themselves but are major contributors to the current fiscal crises of the states goes unacknowledged. The supply side position is even, on occasion, bolstered by a demand-side argument—that putting more money into the hands of business and consumers via tax cuts will stimulate demand for the state's products and spur growth. This despite the obvious problem that states must balance their budgets, so that every dollar put into the economy through tax cuts is taken out by spending cuts. And if the spending leakages that occur with tax cuts are greater than the leakages associated with budget cuts, the demand-side effect could be negative.

A third potential culprit is the attack on income redistribution, otherwise known as class warfare. A substantial chorus of voices from the right has been calling for a reduction in progressive taxes, and they are fond of pointing out how much the rich pay (invariably focusing exclusively on the federal income tax as if that were the only tax anyone pays). Again, if this is the underlying motivation for cuts in taxes on business, then competitiveness arguments are merely a more publicly acceptable rationale, not the real reason. Attacks on progressivity are dressed up as policies to promote jobs for the unemployed. Incredibly, competitiveness arguments have even been put forth to advocate for cuts in taxes on capital gains and for elimination of state inheritance taxes. Conservative think tanks have been promoting the idea that cuts in state personal income taxes, and capital gains taxes in particular, will stimulate venture capital investment and entrepreneurial activity *in that state*. Inheritance taxes are blamed for the closing of family businesses.

It is, of course, impossible to disentangle the effects of these four possible factors driving the reduction in business taxes: the perceived need to be “competitive,” the starve-the-beast attack on the public sector, the supply-siders' notion of self-financing tax cuts, and the attempt to augment the success of the private economy in redistributing income upwards. There is abundant circumstantial evidence, however, that the starve-the-beast strategy is widely embraced on the right. There is also evidence for the attack on income redistribution, as can be seen by what has happened over the past 15 years to state and local tax systems. It is difficult to argue that the overwhelming trend towards increases in regressive taxes on consumption coupled with reductions in progressive taxes on income and inherited wealth, can be explained solely by economic development concerns.

In the end, the most plausible hypothesis, I would argue, is that there is a complex of strategies and agendas and beliefs that have been working in concert (and, yes, there is evidence that there is a conspiracy of sorts to achieve this, in the form of the American Legislative Exchange Council) to produce increases in incentive packages and incentive entitlements, cuts in

business taxes, and cuts in progressive personal taxes. The result is a fiscal crisis for state and local government (not to mention an enormous federal deficit) and an increasingly regressive tax system.

There are indeed those who truly believe the supply side arguments, and those who truly believe the competitiveness arguments, and some of these folks may not also subscribe to the belief that any cut in government spending is a good thing, or that the rich need tax relief. Still, it is certainly very convenient and useful, if one is a starve-the-beaster or reverse Robin Hood, that there are such true believers, in right-wing think tanks and state legislatures and in the press, for they have been providing excellent cover. They keep the debate focused on questions such as “do tax cuts spur growth?” where one can always find an argument or statistic to support the position that they do. Journalists and public officials are, by and large, simply not equipped to sort out the valid claims from the spurious ones, and competitiveness and supply side assertions are simply repeated so often, and with such impunity, that the public comes to believe that these arguments are valid and are made in good faith. I recently spoke at a large public hearing on the state budget about the fact that our tax policies were driven largely by mythology, and was amazed to find that for most people this was the first time they had ever heard anyone argue that tax cuts might not be a good thing for the economy. (I pointed out that I had heard the competitiveness argument, for cutting services rather than raising taxes, put forth twice by public officials just that day—in a newspaper report that morning and on a radio interview on the way to the hearing.)

Whether or not competition for capital is in fact driving all of these fiscal changes (i.e., whether or not it is the real *cause*), it is clear that it is the *driving issue* whenever there are public debates about taxes and budgets. What I hear from advocacy organizations around the country—nonprofits working at the state and local level on tax and budget issues, on child and family policy, on poverty, housing, education, and workforce development—is that they are just getting killed by the tax competitiveness argument. It’s a sure-fire conversation killer that effectively puts a stop to attempts to fund social programs, to forestall the weakening of business regulation, or to adopt more progressive tax policies. Whether it is an effective counter strategy to engage the debate on these terms—to continue to present the evidence on the tax competition issue, as if one is really just participating in a discussion about economic development policy among citizens and politicians with common goals and values—is a question for another paper, or another day.

Notes

¹ Timothy Bartik, *Who Benefits from State and Local Economic Development Policies?* Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, 1991, Page 95.

² Bartik, *Who Benefits?*, ch. 6.

³ Alan Altshuler and Jose Gomez-Ibanez. *Regulation for Revenue: The Political Economy of Land Use Exactions.* Washington, D.C.: The Brookings Institution, 1993. Chapter 6, "Does Development Pay Its Own Way?"

⁴ Altshuler and Gomez-Ibanez. *Regulation for Revenue.*

⁵ Helen Ladd and John Yinger. *America's Ailing Cities.* Updated edition. Baltimore: Johns Hopkins University Press, 1991.

⁶ Michael Greenstone and Enrico Moretti, "Bidding for Industrial Plants: Does Winning a 'Million Dollar Plant' Increase Welfare?" National Bureau of Economic Research, Working Paper 9844, July, 2003.

⁷ Alan Krueger, "Economic Scene; A study finds benefits for localities that offer subsidies to attract companies." *New York Times*, December 11, 2003.

⁸ Peter Fisher and Alan Peters, *Industrial Incentives*, Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, 1998.

⁹ Alan Peters and Peter Fisher, *State Enterprise Zone Programs: Have They Worked?* Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, 2002, page 112.

¹⁰ "Railroad's tax benefits at issue." *Lincoln (Nebraska) Journal Star*, Feb. 10, 2004.

¹¹ Bartik, *Who Benefits?* Michael Wasylenko, "Taxation and Economic Development: The State of the Economic Literature," *New England Economic Review*, March/April 1997, pp. 37-52.

¹² Timothy Bartik, "Jobs, Productivity and Local Economic development: What Implications Does Economic Research Have for the Role of Government?" *National Tax Journal* 47, 4 (December, 1994), pp. 847-861.

¹³ Total state and local taxes paid directly by business were \$404.3 billion in fiscal year 2003, according to Robert Cline et al, *Total State and Local Business Taxes: A 50-State Study of the Taxes Paid by Business in FY2003*, prepared by Ernst and Young for the Council on State Taxation, January 2004. Private non-farm employment was about 108,592,000 (Bureau of Labor Statistics, Current Employment Statistics series), yielding taxes per job of \$3,723.

¹⁴ Peters and Fisher, *State Enterprise Zone Programs*, Appendix C.

¹⁵ Peters and Fisher, *State Enterprise Zone Programs*.

¹⁶ Richard Boden, Jr., "Establishment Employment Change and Survival, 1992-1996." Final report for the Office of Advocacy of the U.S. Small Business Administration, February, 2000.

¹⁷ Analysis by the author of the State of Ohio's enterprise zone agreement database.

¹⁸ Joel Popkin and Company. "Business Survival Rates by Age Cohort of Business." Report for the US Small Business Administration, Office of Advocacy, April 1991.

¹⁹ See Timothy Bartik, *Growing State Economies: How Taxes and Public Services Affect Private-Sector Performanc.* Washington, D.C.: The Economic Policy Institute, 1996; and Ronald Fisher, "The Effects of State and Local Public Services on Economic Development," *New England Economic Review*, March/April 1997, pp. 53-66.

²⁰ Peter Fisher, "Tax Incentives and the Disappearing State Corporate Income Tax." *State Tax Notes*, 23, 9 (March 4, 2002), pp. 767-774.

²¹ Corporations must apportion their overall profits to the states in which they do business in order to determine what share of total profits is taxable in a given state. Each state has its own rules for apportionment, the traditional approach being three factor apportionment, where the firm takes a simple average of three ratios: property in state x divided by total firm property, payroll in state x over total payroll, and sales to state X over total sales. Single factor apportionment uses only the sales ratio, and thus rewards domestic firms that export and penalizes foreign firms that sell in the state.

²² Kirk Stark, "The Quiet Revolution in U.S. Subnational Corporate Income Taxation." *State Tax Notes* 23, 9 (March 4, 2002), pp. 775-784.

²³ Commonwealth of Pennsylvania, *Governor's Executive Budget 2001-2002*, "Tax Expenditures," page D11. Commonwealth of Massachusetts, *Fiscal Year 2001 Tax Expenditure Budget*, page 36. Robert Gavin, "As States Cut Corporate Taxes, Incentives Lose their Advantage," *The Wall Street Journal*, Feb. 14, 2001.

²⁴ Source: Data prior to 1991 from U.S. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism*, 1992, vol. 2 (Washington, D.C.), Table 62, p. 120; data for 1991-2002 from Annual Survey of Governments on US census website, Feb. 2004.

²⁵ Steve Maguire. "Average Effective Corporate Tax Rates: 1959 to 2002," Congressional Research Service report, September 5, 2003.

²⁶ The federal corporate rate also rose in 1999, jumped up in 2000, then fell somewhat in 2001 and 2002, just as the state rate did. This suggests that the explanation lies in the determination of federal taxable income, not in changes in the way states taxed the part of that taxable income that was apportioned to each state. In other words, something happened to increase the share of corporate profits as measured by NIPA (the denominator in Maguire's tax rates) that becomes taxable income (which determines the numerator, along with tax rates, which we know did not rise). IRS corporate tax return data shows that the explanation does not lie in lesser use of deductions from net income in 1999 and 2000. Instead, a larger share of NIPA profits ended up as taxable income. In part, this was due to many more returns with net losses in 2000, which are combined with returns showing positive profits to arrive at aggregate NIPA profits (thus lowering the denominator), yet it is only the returns with positive profits that generate taxable income and taxes (the numerator). It is also possible that the IRS clamped down on abusive tax shelters in 1999 and 2000, notably the use of LIFO (last in, first out) schemes, and it is taking a few years for corporate tax departments to find new ways to shelter profits.

²⁷ Michael Mazerov, *Closing Three Common Corporate Income Tax Loopholes Could Raise Additional Revenue for Many States*, Washington, D.C.: Center on Budget and Policy Priorities, April 1, 2003.

²⁸ David Bradley. "Business Tax Burdens: Responding to the Ernst and Young Studies." Presentation to the 11th Annual Funding State Services Conference, Center on Budget and Policy Priorities, Washington, D.C., November 16, 2003.

²⁹ Bradley, "Business Tax Burdens."

³⁰ Nicholas Johnson, Jennifer Shiess, and Joseph Llobrera. "State Revenues Have Fallen Dramatically; Tax Increases So Far Have Failed to Fill the Gap." Washington, D.C.: Center on Budget and Policy Priorities, November 25, 2003. Available at <http://www.cbpp.org/10-22-03sfp.pdf>

³¹ See Peter Fisher and Elaine Ditsler, "Tax Cuts and State Economic Growth: The Myths and the Reality." Policy Brief, The Iowa Policy Project, Mount Vernon, Iowa. May, 2003. Available at <http://www.iowapolicyproject.org/>

³² US Census, Annual Survey of Governments.

³³ Nicholas Johnson et al, "State Revenues Have Fallen Dramatically." P. 14.

³⁴ Paul Krugman, "The Tax-Cut Con." *New York Times*, September 14, 2003.