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Industrial Incentives: Competition Among American States and Cities

In recent years, there has been much "revisionist" research on the effects of economic development programs at the state and local level. There is now substantial evidence that economic development programs can help local economies by reducing unemployment and increasing earnings. Some, such as Bartik (in his book *Who Benefits from State and Local Economic Development Policies?*), have gone beyond this to argue that such local policies may benefit the nation if the incentives are concentrated in low-growth or high-unemployment regions, because the benefits of jobs created there will exceed the benefits lost by not creating jobs in low-unemployment areas.

Are the economic development incentives offered by states and cities significantly higher in high-unemployment places? This article summarizes the results of a study, sponsored by the Upjohn Institute, that uses new data to examine the spatial pattern of incentive offers.

In our research, we measured competition among places based on the dollar value of a locality's standing incentive offer to industrial firms expanding or locating in that locality. The standing offer included the whole range of competitive incentives over which state or local governments have some direct control: income tax investment and jobs credits, property tax abatements, sales tax exemptions, grants, loans, loan guarantees, and firm-specific job-training and infrastructure subsidies.

Because incentives may be embedded in tax codes, and because the value of incentives to a firm must be measured net of income tax effects, we also modeled the federal corporate income tax, each state's and city's corporate income and net worth taxes, the major state and local sales taxes paid by business, and local property taxes.

We used the hypothetical firm method to measure the value of competitive incentives. We constructed financial statements for 16 hypothetical firms, representing the characteristics of a typical large and small firm in each of eight fast-growing manufacturing industries.

The model then measured the net returns on a new plant investment, after all taxes and incentives. The new plant is located in one of 24 states, the 24 that account for the most manufacturing employment in the United States (combined, they represent 86% of the total), and in one of 112 cities, randomly selected from within these 24 states.

Is There Significant Variation in Returns across Locations?

Is there sufficient variation in returns on investment across states and cities that tax and incentive differences could affect location decisions? If incentives have little effect on profitability at different sites, there is little reason to worry about their effects on redistributing

employment.

We found large differences between the returns available at the "best" locations and returns available at the "worst" locations, considering state and local tax systems and tax incentives (but not other incentives). Even when we ignored variation within states by focusing on a representative city in each state, we found effective state/local tax rates on new investment that ranged, for example, from 1.7% to 10.2% for a small but profitable manufacturer of soaps and toiletries, and from 4.1% to 23.8% for a large but low-profit automobile manufacturer.

These are the extreme cases; for the typical sector, the highest-tax state placed a tax burden on manufacturers that was about three times as large as that in the lowest-tax state.

Another way of examining the magnitude of incentives is to measure the difference between the best and the worst standing offers among our sample of cities and then to convert this difference to an hourly wage equivalent.

For some firms, the results were startling. For the large drug firm, the difference between the best and worst sites translated into an average hourly wage difference of \$1.82. For most firms modeled, the equivalent hourly wage difference between the best and worst sites was between \$0.65 and \$0.95 per hour.

Moreover, the spreads between cities at, for example, the 80th and 20th percentiles or the 75th and 25th percentiles remained large. Thus, it seems reasonable to conclude that, at least at the extremes, taxes and incentives are potentially large enough to influence location decisions.

The inclusion of non-tax incentives very often did little to change the majority of cities in the top 20 or bottom 20. In most cases, cities that were highly competitive after taxes and tax incentives were also highly competitive after the inclusion of non-tax incentives. Overall, non-tax incentives did not ameliorate, but actually accentuated, the tax differentials between the best and worst cities.

Three tentative conclusions emerge: 1) the differences in investment returns across states and cities due to tax and incentive differences are quite substantial, and it is certainly plausible that these differences are large enough to influence location choices; 2) the magnitude of incentives, relative to returns after taxes but without incentives, is substantial; and 3) incentive competition per se is not producing convergence across sites; if anything, it is increasing inter-site differences.

Are Returns Higher in High-Unemployment Cities?

We focus here on the results for the sample of 112 cities, using actual local tax rates and incentive programs as well as state taxes and incentives. Almost all of the correlations between unemployment and taxes or incentives are of modest size.

There is a consistently negative relationship between unemployment and returns after basic taxes (without any incentives); the highest-unemployment places have the highest tax

burdens. There is a consistently positive relationship between unemployment and tax incentives: the highest-unemployment places offer the largest state and local tax incentives.

This result is dominated by local property-tax abatements and by enterprise-zone (EZ) incentives; we deliberately allowed the largest incentives available in a city (which would be enterprise-zone incentives in the 40% of our cities with such zones) to represent the city as a whole. Considering non-tax incentives, there is no clear pattern of providing inducements to shift jobs either towards or away from high-unemployment places.

Figure 1 illustrates the lack of any consistent pattern by focusing on a firm that was typical in terms of the correlation of taxes and incentives with unemployment—the instruments manufacturer building a \$180 million plant. We show only the top 25 cities (those with the highest return for this plant after taking into account all taxes and incentives) ordered by unemployment rate.

For each city, the graph shows the rate of return after basic taxes and how this rate of return is improved through the provision of enterprise zone incentives and other (tax and non-tax) incentives. Some cities that ranked poorly after basic taxes improved their position dramatically through non-enterprise zone incentives; others did so through enterprise zone credits. Some cities, including some with relatively low unemployment, were very competitive without incentives and enhanced their position further through incentives. But incentives are not primarily compensating for high basic taxes.

While incentives do modestly favor places with higher unemployment, these incentives only offset the tendency of basic state taxes on business to be higher in high-unemployment states. The end result is a spatial pattern of returns on new investment that is essentially random: there is no discernible tendency for returns to be more attractive in high-unemployment or in low-unemployment places.

It appears 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 development programs, states and cities have produced a system of taxes and incentives that provides no clear inducement for firms to invest in higher-unemployment places. It is true that in the absence of that competition the pattern of returns might well favor the least distressed places. However, this is difficult to say for certain, because some of the "perversity" we observed in state taxes may itself be the result of competitive pressures that produced changes in the underlying tax codes of certain states. Some incentives are embedded in what we modeled as the "basic" tax system.

Conclusions: The National Benefits of Competitive Economic Development Policy

These results are consistent with the following arguments (though they certainly cannot be taken as proof):

1. State and local tax reductions and development incentives are adopted for a variety of reasons, high unemployment perhaps being one, but slow growth and simple imitation of others being more important reasons.
2. Even where economic distress, as measured by high unemployment, may have provided

the original political impetus to cut business taxes or adopt incentives, these measures are likely to persist even if state economic performance improves.

To the extent that tax and incentive competition results in a redistribution of jobs, our research lends little support to the argument that this redistribution has beneficial effects for the nation as a whole (by shifting jobs from places with low unemployment to places with high unemployment). Neither can we say that it is clearly harmful (i.e., by providing inducements to redistribute jobs in the opposite direction).

Of course, one can only speculate what the spatial pattern of returns on investment in 1992 would have looked like had states and cities never undertaken to influence their economic fortunes by offering inducements to industry in competition with one another. Only if this pattern would have been distinctly counterproductive (with higher returns in lower-unemployment places) could one conclude that competition has been beneficial, by nullifying such effects.

This article describes research published in the Upjohn Institute book of the same title. Drs. Fisher and Peters are professors of urban planning at the University of Iowa.