

STEM and the Local Economy

significant or desirable effects on other measures of regional well-being.

- Above-average STEM KSAs are associated with increased regional well-being, but “high” may not be as high as is typically assumed. Not all value comes from college-degreed STEM occupations. These results show the importance of many technician and mechanical jobs that often are overlooked or ignored in articles, research, and policy on the economic importance of STEM jobs.
- Efforts to help dislocated workers may be more effective if they explore the skills associated with previous occupations and try to match workers to occupations with similar skill needs. Helping workers make the case for cross-cutting skills to regional employers could be a more effective economic development strategy than investment in big leaps of unrelated retraining.

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Race to the Bottom?

Local Tax Break Competition and Business Location

Evan Mast

State and local governments in the United States spend \$45–\$80 billion each year on programs that encourage economic development in a particular geographic area (Bartik 2017; Kline and Moretti 2014). These programs, often called place-based policies, typically offer tax breaks in an effort to attract businesses or encourage the growth of existing businesses. These range from huge subsidies like the \$3 billion that Foxconn recently received from the state of Wisconsin to small programs that target local small businesses. A crucial feature of place-based policies is that they are very decentralized—state and local governments account for 80 percent of total spending.

This article highlights findings from a recent paper that focuses on two potential effects of decentralization in business tax breaks (Mast 2017). First, competition between subnational governments could increase total tax exemptions. Second, local control of tax breaks could cause firms to choose locations where they produce more value for the community. The latter may occur because jurisdictions with more to gain from landing a firm offer larger exemptions, sending a signal that could improve the match quality between towns and firms.

These two effects are important for evaluating policies that restrict which governments can offer tax breaks, such as proposals to ban state exemptions or the recent moratorium on some

local exemptions in the Phoenix area. Such proposals have attracted attention recently, as Amazon and Foxconn have conducted well-publicized searches for locations for new expansions.

The Importance of Local Taxes For Businesses

This article focuses on local, rather than state, government tax breaks. State and local taxes are a large component of the total business tax burden—a 2014 estimate pegged total state and local businesses taxes at \$688 billion versus total federal corporate income tax revenues of \$320 billion (Phillips et al. 2015).¹

While state incentive packages for national searches are more heavily publicized, local tax breaks are important in many cases. First, most firms do not search nationally when considering an expansion or relocation. Second, even for firms conducting national searches, there is often a second, local stage to their search. For example, Foxconn considered several sites in Racine and Kenosha Counties after announcing their intention to build in Wisconsin. Local tax breaks also amount to large sums—approximately \$700 million in New York State in 2013.

The Effect of Competition on Local Tax Breaks

To begin, I study spatial competition between local governments in New York State. Do governments offer

ARTICLE HIGHLIGHTS

- Competition from nearby local governments increases business tax breaks.
- Simulations suggest that businesses typically locate in the same towns that they would have chosen if local tax breaks were not allowed.

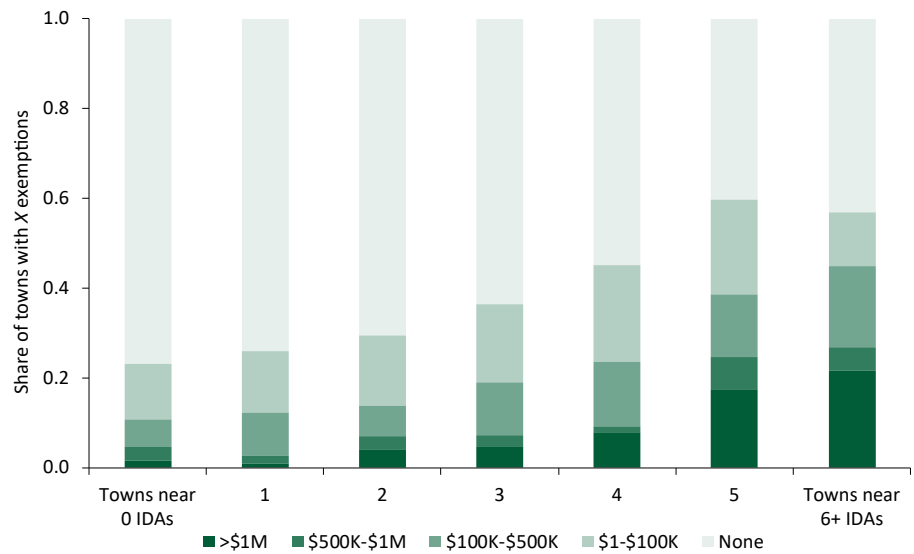
more tax breaks when there are more competitors nearby? In New York, competitors are industrial development agencies (IDAs), local economic development agencies that represent either a county or a town and offer tax breaks in an effort to improve economic conditions in their jurisdictions. While every county has an IDA, only about 50 of 1,000 towns have their own agencies. A town that does not have its own IDA is represented by its county's IDA.

The correlation between the number of IDAs within 25 kilometers and the dollars of tax breaks in a town, shown in Figure 1, suggests that competition increases tax breaks. However, this association may reflect other characteristics that are correlated with high levels of competition—for example, heavily populated areas have both more competition and more economic activity. To circumvent this problem, I use geography to construct a natural experiment.

Figure 2 shows the towns in Ulster County labeled according to the number of counties within 25 kilometers of the town. Within the county, variation in this measure appears to be idiosyncratic—it depends mostly on whether a town is at the edge or on the corner of its county. Noting this, I compare towns within the same county that have different numbers of counties within 25 kilometers in order to estimate the causal effect of increased competition.

I find that an additional IDA within 25 kilometers increases the probability that at least one business in a town receives tax exemptions from 25 to 30 percent and increases the dollars of exemptions by over 50 percent. These estimates show that tax break competition is not entirely driven by competing states and suggest that tax breaks are not exclusively a tool to help firms on the margin of profitability. I also show that the effect rapidly fades out as the radius of competition extends beyond 25 kilometers, suggesting that competition is quite local.

Figure 1 Tax Breaks in Towns with Different Levels of Local Competition



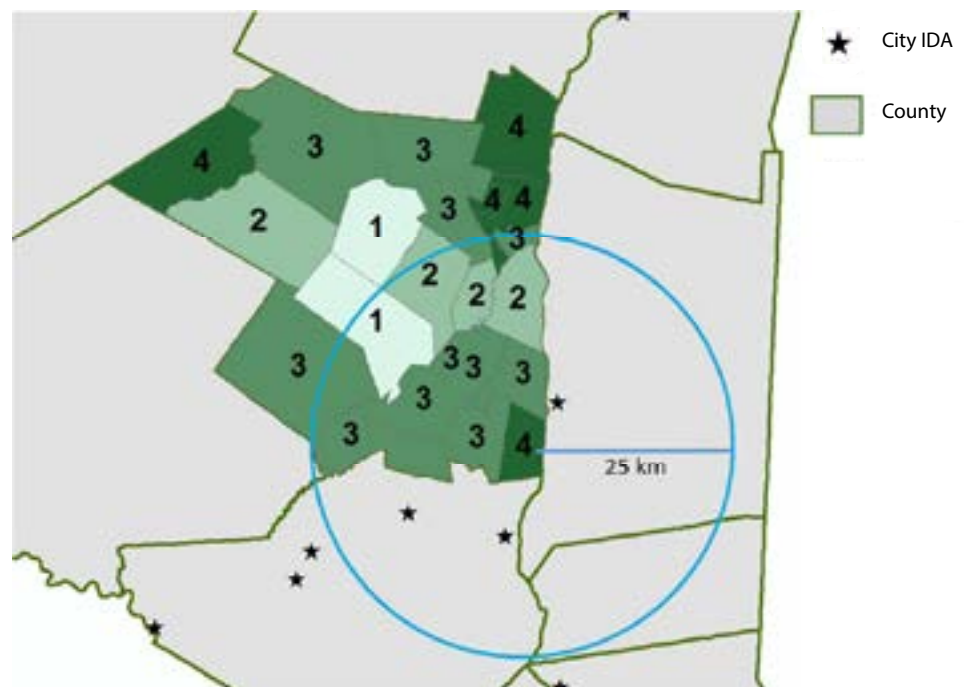
SOURCE: Author's calculations using New York State data.

The Effect of Tax Breaks on Business Location

The previous exercise sheds light on the effect of competition but says little about how tax breaks affect firm

location. To address this question—in particular, how business locations would change if towns were not allowed to offer tax breaks—I perform a simulation exercise.

Figure 2 Example Variation in the Number of Counties within 25 km of a Town



Race to the Bottom?

I develop a simple model of towns offering tax breaks to attract firms. Towns compete in a setting similar to an auction, but with the twist that firms also have preferences over towns, so

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they do not just select the town that offers the largest tax break. I choose the parameters of the model to match the effect of competition estimated in the previous section.

I use the estimated model to simulate two counterfactual policies—eliminating town IDAs (leaving just county IDAs) and eliminating all IDAs. I find that firms typically choose the same location across the two counterfactuals and a status quo simulation, indicating that tax breaks do little to improve the town/firm match. The town most likely to land a particular firm is the same in every policy regime for about 85 percent of firms.

This result occurs not because firms do not care about tax breaks, but because of the way that IDAs interact with one another. For example, suppose that Syracuse is attractive to Firm A and has a very high probability of winning when no tax breaks are allowed. When local tax breaks are allowed, competing towns will offer tax breaks in an attempt to cut into Syracuse's lead, but Syracuse will respond with an exemption large enough to stay ahead of the competition. This strategic behavior reduces changes in firm location across policy regimes.

Caveats

There are several important caveats to these results, particularly for those on firm location. As with any simulation exercise, it is necessary to make several simplifying assumptions. The most important is that firms are only choosing among towns in New York State. This implies that my model is best suited to firms conducting a local search—such as retail and services establishments, distribution centers, or small manufacturing ventures—or firms in the second stage of a national search. Businesses in my sample tend to be relatively small and in retail or services, and I also present survey evidence in the paper

suggesting that many firms search within a local area.

NOTE

1. Office of Management and Budget, Historical Tables: <https://www.whitehouse.gov/omb/historical-tables/> (accessed January 3, 2018).

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