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## Incentives and Local Job Creation

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# POLICY BRIEF

## Incentives and Local Job Creation

Timothy J. Bartik, W.E. Upjohn Institute

### BRIEF HIGHLIGHTS

- Typical incentives only “tip” 2–25 percent of decisions on where to locate a business.
- Because incentive effects are modest, many incentive policies may have net benefits that are small or even negative.
- Incentive studies frequently overestimate incentive effects, because incentives tend to select growing firms and counties.
- For incentive evaluations to be credible, they must at least consider that fewer than one-quarter of incentive offers succeed in creating jobs.
- More precise and accurate estimates of incentive effects depend on better measurement of variations in tax and incentive policies.

For additional details, see the full report: *“But For” Percentages for Economic Development Incentives: What Percentage Estimates Are Plausible Based on the Research Literature?*

This can be found at [http://research.upjohn.org/up\\_workingpapers/289/](http://research.upjohn.org/up_workingpapers/289/).

How effective are economic development incentives? According to many economic development agencies, tax incentives are critical to business location decisions. “But for” the incentive, most or all incented firms would not have chosen to locate, expand, or retain jobs at this location.

These high “but for” percentages are exaggerated. This research review shows that the likely “but for” percentage for typical incentives is less than 25 percent. At least 75 percent of the time, the same local job creation would have occurred without the incentive.

The “but for” percentage helps determine incentives’ benefits. If incentives tip 100 percent of location decisions, most incentives provide local residents with benefits greater than costs. If incentives tip only a few business location decisions, incentive benefits are more questionable.

Policymakers should know the following about incentive research:

- 1) Based on 30 studies, the “but for” percentage for typical incentives probably lies between 2 percent and 25 percent.
- 2) Most current estimates of the “but for” percentage are positively biased. The firms or areas receiving more incentives would tend to be growing more anyway, even without the incentives.
- 3) Policymakers should doubt claims of incentive benefits that assume that all or even most of the jobs associated with incented firms were due to the incentive. Studies should include more conservative scenarios, in which less than 25 percent of incentives tip location decisions.
- 4) Improvements in incentive evaluations require new empirical studies that better measure business cost variation due to taxes and incentives. Such studies would allow more precise estimates of incentive effects and benefits.

### Research Evidence on Incentives

I reviewed 34 estimates of incentives’ effects. These estimates come from 30 studies. I determined each study’s estimate of what percent of incented firms would not have grown jobs in some state or local economy “but for” the incentive. This is the first such comprehensive review.

Of the 34 estimates, I judged 23 to be positively biased—that is, they tend to overstate the true “but for” percentage. I judged 4 estimates to be negatively biased. Seven had no obvious bias.

Figure 1 shows the median estimated “but for” percentage. This is shown for all 34 estimates and for studies classified by likely bias.

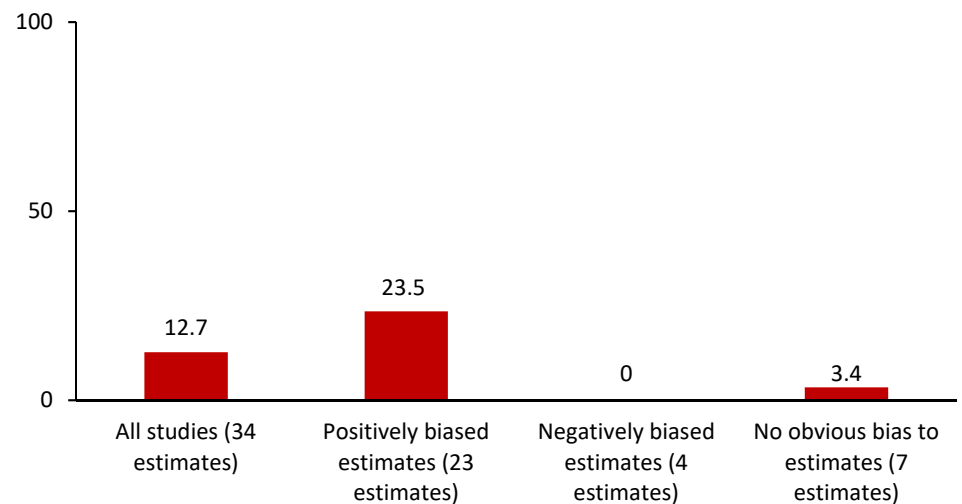
For all estimates, the median “but for” percentage is 13 percent. Even for positively biased studies, it is less than 25 percent. Negatively biased studies find no incentive effects. For studies with no obvious bias, the median estimated “but for” percentage is 3 percent.

These studies focus on state and local incentives of a standard size. Typical incentives are equivalent, as a percentage of a firm’s costs, to providing a permanent 3 percent wage subsidy.

## Improving Economic Development Incentives

Typical incentives probably sway less than 25 percent of incited firms.

Figure 1 Median “But For” Percentage



For a few prominent business location decisions, state incentives are far larger. For example, Wisconsin recently offered Foxconn an incentive whose share of costs was about 10 times as large as typical incentives.

The “but for” percentage should go up with the incentive’s percentage of firm costs. Foxconn-sized incentives may have a larger “but for” percentage. A higher “but for” percentage at a higher cost may not improve incentives’ benefits relative to costs. If costs go up 10 times, and the “but for” percentage goes up by 10 times or less, the benefit-cost ratio may stay the same or go down.

To sum up: typical incentives probably tip less than 25 percent of incited firms. However, economic development agencies often claim credit for all incited firms.

### How the “But For” Percentage Affects Benefit-Cost Ratios for Incentives

The “but for” percentage affects incentives’ benefits. If incentives create jobs, these jobs create local benefits. Local earnings per capita increases because of higher employment rates and wages. Fiscal benefits occur if higher tax revenue exceeds the public service costs of growth. But these benefits depend on the incentives actually causing job growth. The lower the “but for” percentage, the lower the job growth and the lower the local benefits.

If incentives’ job growth effect is low enough, incentives can reduce local earnings per capita. If incentives are financed by reducing public school spending, the lower school quality may reduce future wages.

How would the “but for” percentages in these 34 estimates affect incentives’ benefit-cost ratios? To address this issue, I use my incentive simulation model, which is described in my 2018 report, *Who Benefits from Economic Development Incentives?* The model assumes typical incentive costs and financing, and typical project job multiplier effects on local economies.

Table 1 shows how various “but for” percentages affect the ratio of incentives’ net benefits to costs. Net benefits are effects on local residents’ per capita incomes, including the direct cost of paying for incentives. A positive ratio implies that income per capita goes up, a negative ratio that it goes down. All benefits and costs are calculated as the present value as of the time of the business location decision.

If incentives are always decisive, then an average-size incentive package has a very high ratio of net benefits to costs. Job growth has high benefits, if it can be achieved.

However, for more realistic “but for” percentages, it is doubtful whether typical incentives have positive net benefits for local residents. For example, if we use the 3.4

**Policymakers should demand that incentive evaluations consider more-realistic scenarios, under which less than one-quarter of incented jobs are due to incentives.**

**Table 1 “But For” Percentages and Incentive Net Benefit-to-Cost Ratios**

“But for” percentage	0	3.4	12.7	23.5	100
Net benefits divided by incentive costs	-1.76	-1.19	0.39	2.23	15.21

NOTE: Net benefits are the present value of net local income per capita effects, after subtracting out direct incentive costs. The gross benefit to cost ratio would add one to this ratio.

percent “but for” figure—the median for studies without obvious bias—net benefits are negative.

If we use a 12.7 “but for” percentage—the median from all 30 studies—then incentives have net positive benefits. But this net benefit is slight: 39 percent of incentives’ costs. Relatively modest change in project features (e.g., job multiplier effects, how incentives are financed) could easily turn net incentive benefits negative.

### Why Many Incentive Studies Are Subject to Selection Bias

Most current incentive studies are likely positively biased. These studies are done within a single state. They typically focus on how incentives affect either different counties or different firms.

If the studies focus on different counties, they usually compare the job growth in counties that receive a higher dollar amount of incentives versus other counties. If the studies focus on different firms, the comparison is between firms that receive an incentive and those that don’t.

For many such comparisons, the result is a likely positive “selection bias.” Incentives tend to be selectively awarded to growing firms. Absent some special targeting, firms or counties that grow more are likely to receive more incentives. Even with zero causal effects of incentives on firm growth, there is likely to be a positive correlation between firm or county growth and the magnitude of incentives awarded.

For a few studies, firms or counties with job growth problems are targeted for incentives. These studies’ estimates of the “but for” percentage will be negatively biased.

The least biased studies compare the effects of different incentive policies. Most such studies are of different states, with different incentive regimes. These studies try to quantify how incentives are correlated with state job growth, holding constant other state characteristics.

A single-state study can also be less prone to bias if it compares incentives whose magnitude varies across different firms or counties, with this variation due to policy choices that are not correlated with the firm or county’s preexisting growth trends.

### What Policymakers Should Do with These Results

Based on the research literature, policymakers should be skeptical of claims that every incented job was caused by the incentives. They should demand that incentives be evaluated more realistically. Evaluations should consider scenarios under which less than one-quarter of incented jobs were actually due to the incentives.

Policymakers should be aware that many estimates of incentive effects are biased. Policymakers should ask, Is it plausible that the incented firms, or the more incented counties, would have tended to have more local job growth even without the incentives?

Finally, policymakers should support more rigorous evaluation of incentive effects. Incentives in different states, or different regions of the same state, should have their magnitudes for different firms be more rigorously measured. This better data may allow researchers to provide more accurate and precise estimates of incentives’ effects.

