Evidence Counts
Evaluating State Tax Incentives for Jobs and Growth

Avoiding Blank Checks
Creating Fiscally Sound State Tax Incentives
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Your Data

Incentives work by lowering the cost of doing business, and in general, a bigger reduction in costs will increase the impact of the incentive. To calculate the cost reduction, start by entering the observed or estimated data for the incentive program.

Use the slider bar to determine what time period to analyze, selecting a range of years that aligns with the data available to you.

For each year selected, enter the total amount of the incentive (based on the amount of revenue forgone by the state), the total number of full-time-equivalent employees working at the companies that received the incentive, and the total earnings of those employees.

As a reminder, any data you enter is subject to the terms and conditions of this site.

1) Are you evaluating an existing or historical incentive program, or are you forecasting the impact of a future program? Note: Changing this selection before saving your analysis will reset the data to default values.

*Evaluation  Forecast

2) Select the years you wish to analyze.

1998 to 2014

3) Enter your data in the chart below. If you are using Internet Explorer, you can copy and paste your data into the table. Click on the “Paste from Clipboard” button for more information.

<table>
<thead>
<tr>
<th>Year</th>
<th>Incentive Cost (in dollars)</th>
<th>Total Employment at Recipient Companies</th>
<th>Total Earnings of Recipient Companies (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>$75,000,000</td>
<td>50000</td>
<td>$8,500</td>
</tr>
<tr>
<td>1999</td>
<td>$75,000,000</td>
<td>52500</td>
<td>$8,500</td>
</tr>
<tr>
<td>2000</td>
<td>$75,000,000</td>
<td>53045</td>
<td>$8,500</td>
</tr>
<tr>
<td>2001</td>
<td>$75,000,000</td>
<td>53576</td>
<td>$8,500</td>
</tr>
<tr>
<td>2002</td>
<td>$75,000,000</td>
<td>54111</td>
<td>$8,500</td>
</tr>
</tbody>
</table>
Identify the Targeted Industry

Now that we have the incentive cost and employment levels at the incentivized companies, it is time to estimate business costs for the industry receiving the incentive.

In many instances, we may not know the cost structure of the companies claiming the incentive. This tool multiplies the number of employees by the average value-per-worker of the targeted industry to provide an estimate of the recipient companies’ costs. However, if you have more information about the companies’ costs, you should use those data instead.

**More Information:** Find more information about the industries and values used in this online tool, including the value-per-worker for each industry, on the [methodology page](#). Find more information about how to identify narrower industry data in the [FAQ](#).

**Industry Selection:** Choose the industry eligible for the incentive from the table on the right. If the incentive was available to all industries, select “Private Industries.”

Currently, the industry is set to “Private Industries.” In 2014, there were 109,583,775 jobs in that industry and the industry was worth $14,920,310 million. Thus, the average value-added per worker was $136,154.

If there were 61,453 jobs at companies receiving the incentive that year, and the incentive value was $75,000,000, then the cost reduction for that year is calculated as follows:

Multiply 61,453 by the value per employee of $136,154, then divide $75,000,000 by the result. In this case, $75,000,000 / (61453 * $136,154) = 0.9%.

Select an industry

**Industry Sectors**

- Accommodation and Food Services
- Administrative and Waste Management Services
- Agriculture, Forestry, Fishing, and Hunting
- Arts, Entertainment, and Recreation
- Construction
- Durable Goods Manufacturing
- Educational Services
- Finance and Insurance
- Health Care and Social Assistance
- Information
- Management of Companies and Enterprises
- Mining
- Nondurable Goods Manufacturing
- Other Services, Except Government
- Private Industries
  - Professional, Scientific, and Technical Services
  - Real Estate and Rental and Leasing
  - Retail Trade
Food Industry
Sensitivity to Changes in Costs

Calculating the percent reduction in businesses' costs can help you determine the plausible range of fiscal and economic impacts from the incentive. When a tax incentive provides a company with a 1% reduction in costs, the company will usually be able to maximize profit by increasing output, typically by more than a 1%. In fact, economic research suggests that the increase in output will likely be one to four times the cost reduction. In other words, a 1% cost reduction will produce a 1 – 4% increase in output. This concept is known as the cost elasticity, and it is a measure of a business' responsiveness to a change in costs.

Academic literature has examined cost elasticity based on changes in tax and labor costs, and this literature suggests the elasticity will likely fall between -1 and -6, with an average of -4. An elasticity closer to -6 suggests that an industry is very sensitive to changes and a reduction in costs will lead to a larger increase in output. An elasticity closer to -1 suggests very little sensitivity to changes and a lesser impact on output from a reduction in costs.

Examples: A company or industry's sensitivity to changes in costs can vary based on several factors, including the supply and demand of labor and products, a company's mobility, incentive design, and the share of a company's costs that are attributable to state and local business taxes. For instance, companies that rely on difficult-to-acquire resources such as highly skilled labor or limited natural materials may not be as responsive to a tax change; they may have difficulty acquiring more of the resources needed to increase their output. Additionally, companies with already low tax liabilities might not be very responsive to a tax reduction, but if the credit is refundable or transferrable, companies could claim the credit regardless of their existing tax liabilities.

More information: A more expansive discussion is available on the methodology page.
Rate of Adjustment to an Incentive

In most cases, firms cannot respond immediately to the full amount of the incentive. For instance, it takes time to acquire additional labor and capital necessary to increase output.

Research suggests that state business activity will annually incorporate an additional 8.5% of the incentive amount each year, eventually leveling off when the economy approaches a new equilibrium and additional incorporation of the incentive into the economy would slow down.

If the sector targeted by this incentive is expected to adjust faster or slower than this rate, enter a different value in the box on the right.

Examples: A slower speed of adjustment might be appropriate when companies need more time to adapt to the particular incentive, such as when extensive capital projects must be planned and implemented. On the other hand, a faster speed of adjustment could be appropriate if the incentive has already been in place for 20 or more years and the economy has already incorporated its effects, or when skilled workers are readily available to meet increased demand for labor.

Percent Incentive Utilization by Year of Incentive

Enter the appropriate adjustment rate.
Current Value: 9

9%
Costs heavily influenced by price of labor; no infrastructure needed (e.g., call center, web-based industry)

Costs moderately influenced by price of labor; time needed to find high-skill employees (e.g., agriculture, angel investment)

Costs heavily influenced by other factors (supplies, transportation); time needed to build infrastructure (e.g., manufacturing, R&D)
Displacement of Jobs or Investments

Expanded job creation or investments in one community or industry are sometimes offset by losses in another community or industry. When this happens, the net impact of an incentive is reduced.

To calculate job displacement attributable to an incentive, look at the share of goods and services produced by an industry that are expected to be exported out of the local economy.

Example: As a general rule, if an industry relies heavily on local consumers, such as with food or service providers, employment growth will lead to job losses at existing businesses. Targeting industries that serve national and international customers, such as manufacturing or agriculture, will increase exports, thus reducing potential displacement.

More information: The methodology section explains how the export shares shown here were calculated. When conducting analysis outside of this tutorial, the export share may be different for a more specific industry classification or within a specific region of the country.

Note that changing the industry not only affects the export share, but also modifies the industry value and cost reduction to the incentivized companies (discussed in the industry tab).

Select an industry

<table>
<thead>
<tr>
<th>Industry Sectors</th>
<th>Export Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation and Food Services</td>
<td>4.2%</td>
</tr>
<tr>
<td>Administrative and Waste Management Services</td>
<td>12.8%</td>
</tr>
<tr>
<td>Agriculture, Forestry, Fishing, and Hunting</td>
<td>10.0%</td>
</tr>
<tr>
<td>Arts, Entertainment, and Recreation</td>
<td>30.8%</td>
</tr>
<tr>
<td>Construction</td>
<td>6.9%</td>
</tr>
<tr>
<td>Durable Goods Manufacturing</td>
<td>92.9%</td>
</tr>
<tr>
<td>Educational Services</td>
<td>62.7%</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>31%</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>4.4%</td>
</tr>
<tr>
<td>Information</td>
<td>11.2%</td>
</tr>
<tr>
<td>Management of Companies and Enterprises</td>
<td>0.9%</td>
</tr>
<tr>
<td>Mining</td>
<td>100%</td>
</tr>
<tr>
<td>Nondurable Goods Manufacturing</td>
<td>81.8%</td>
</tr>
<tr>
<td>Other Services. Except Government</td>
<td>3.5%</td>
</tr>
<tr>
<td><strong>Private Industries</strong></td>
<td><strong>21.5%</strong></td>
</tr>
<tr>
<td>Professional, Scientific, and Technical Services</td>
<td>8.2%</td>
</tr>
<tr>
<td>Real Estate and Rental and Leasing</td>
<td>4.9%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>3.1%</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>34.9%</td>
</tr>
<tr>
<td>Utilities</td>
<td>21.0%</td>
</tr>
</tbody>
</table>
Sofia's Snacks @sofiasnacks
1 min ago
Now only $4 a box.
#grizzlybars #cheapsnacks

Ernie's Energy Bars
@energybars 1 min ago
Need a snack? $7 a box.
#needenergy
Indirect Impacts of the Incentive

While the direct recipients of an incentive are obvious beneficiaries, there are often additional, indirect beneficiaries. When companies purchase more from in-state suppliers, those businesses can also increase their hiring and output, creating indirect benefits. Incentivized firms may also pay higher wages for employees, who in turn can spend more in the local economy, creating induced benefits. Generally, the size of the direct effects can be multiplied by some number to represent secondary economic activity.

If the appropriate multiplier is unknown, we recommend using a value between 1.5 and 2.

Example: A multiplier of 1.5 indicates that the secondary impacts – the indirect and induced effects – would be approximately equal to half (0.5) of the total direct effects (1.0). A multiplier of 2 means the secondary effects are approximately equal to the direct impacts (1+1=2).

The “Earnings Multiplier” defaults to 1.5. This means that for each dollar in wages paid to employees by businesses receiving the incentive, earnings for employees at other businesses would increase by $0.50. For the “Employment Multiplier,” which also defaults to 1.5, each full-time job created by incentivized businesses would lead to half of a new, full-time job elsewhere in the economy.

More information: Appropriate multipliers can be generated by using a model such as REMI or IMPLAN, or by looking up an appropriate value in RIMS. Research indicates that multipliers greater than two should only be used in rare circumstances.
Opportunity Costs of the Incentive

Part of understanding the impact of a tax incentive is considering whether it was more beneficial than alternative policy options. By subtracting the estimated impacts of these alternative policies from the estimated impacts of the incentive, states can see how many more or fewer jobs were created under the tax incentive than would have been created with another policy.

Because a tax incentive results in decreased revenue for the government, and states need to balance their budgets, these programs are often “paid for” with tax increases or spending cuts. Thus, commonly explored alternatives include maintaining or increase government spending on programs such as education, or maintaining or implementing a broad-based business tax cut.

Each of these options have different economic impacts. A tax increase for businesses will have a different impact than a tax increase on individuals. Cuts to education spending have more long-term impact on the supply of workers than other government spending cuts. The slider on the right address these potential differences.

More information: This tutorial focuses on fiscal revenue and expenditure options that could influence the supply or demand of labor. More details on estimating these supply- and demand-side factors can be found in the methodology section. Further, state size is estimated in this tutorial for convenience. Analysts should use state- or regionally-specific data when estimating the impact of programs in their region.
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