

policy brief

ABOUT THE AUTHORS

Dagney Faulk, PhD, is director of research at the Center for Business and Economic Research at Ball State University. Her research focuses on state and local tax policy and regional economic development issues and has been published in *Public Finance Review*, *the National Tax Journal*, *the Review of Regional Studies*, *State and Local Government Review* and *State Tax Notes*.

Faulk received her doctorate in economics from the Andrew Young School of Policy Studies at Georgia State University.

For more information, contact Dagney Faulk at dgfaulk@bsu.edu.

Michael J. Hicks, PhD, is the director of the Center for Business and Economic Research and an associate professor of economics in the Miller College of Business at Ball State University. His research has focused on issues affecting local and state economics. He has authored one book on Wal-Mart's effect on local economies and published papers on the subject in the *Eastern Economics Journal*, *Atlantic Economics Journal*, *Economic Development Journal*, *Regional Economic Development*, *Journal of Private Enterprise* and *Review of Regional Studies*.

Hicks earned doctoral and master's degrees in economics from the University of Tennessee and a bachelor's degree in economics from Virginia Military Institute.

For more information, contact Michael J. Hicks at mhicks@bsu.edu.



BALL STATE
UNIVERSITY
CENTER FOR BUSINESS AND
ECONOMIC RESEARCH

© 2010 Center for Business and Economic Research, Miller College of Business, Ball State University

Reflections on State Tax Incentives

Dagney Faulk, PhD, *Director of Research*
Michael J. Hicks, PhD, *Center Director*

This policy brief is from remarks originally prepared for the October 10, 2010, meeting of the Indiana General Assembly's Interim Study Committee on Economic Development in West Lafayette, Ind.

Tax incentives are components of the tax code designed to encourage certain behaviors, such as job creation or investment in specific geographic areas. Tax credits including jobs tax credits, investment tax credits and training credits, tax deductions, tax holidays, tax free zones and property tax abatement are common types of incentives used by federal, state and local governments.

Jobs tax credits (JTC) – also called employment tax credits or job creation tax credits – are tax credits available to businesses that increase employment. About 23 states in the U.S. offer job creation tax credits. The structure of these credits differs among states. Some states link the credit to wages to target higher paying jobs, specific industries, or offer higher credits to businesses creating jobs in distressed areas.

These tax credits can be divided into two categories: statutory and discretionary tax credits. Statutory credits are available to businesses meeting certain criteria, such as being in a targeted industry and creating a minimum number of jobs. There is no negotiation with a state agency for these credits; if a firm meets the criteria, it is eligible to take the credit. There are also a variety of discretionary tax credits offered by states.

These credits are offered to attract or retain firms. There is some sort of negotiation and approval process. The credits offered by the Indiana Economic Development Corporation would fall in this category.

Three of the seminal issues surrounding state tax credits are: (1) whether jobs tax credits create jobs that would have been created in their absence; (2) the expected tax expenditure on JTC programs; and (3) whether higher credit amounts influence job creation in distressed areas.

RESEARCH ON STATUTORY TAX CREDITS

The primary issue with incentives is whether tax incentives create jobs (investment, etc.) that would not have been created in their absence. Is the incentive really altering a firm's decision to hire workers at the margin?

Statistical analysis of state tax incentives to date has been ad hoc in nature and limited to a few states where researchers have either gathered or had access to the appropriate data. The analysis in Faulk (2002) uses data from the state of Georgia for firms taking or eligible to take (but not taking) Georgia's JTC. Georgia's JTC is available

“Statistical analysis of state tax incentives to date has been ad hoc in nature and limited to a few states where researchers have either gathered or had access to the appropriate data.”

for the creation of new full-time jobs in manufacturing and distribution, warehousing, goods processing, tourism, research and development, and information processing. The maximum credit is half of a firm’s tax liability. The credit can be taken for five years if the jobs are maintained. Unused credit can be carried forward for up to ten years. The minimum number of jobs that must be created (5 to 25) to qualify for the credit and the credit amount (\$750 to \$3,500) per job varies by location: firms creating jobs in distressed counties have to create fewer jobs and receive a higher credit. This credit is similar to North Carolina’s Lee Employment Tax Credit. South Carolina’s credit is also similar. These similarities provide some evidence of the copycat effect among states has been documented in the literature.

The analysis of Georgia’s JTC shows that companies taking the JTC created 23 percent to 28 percent more jobs than eligible firms not taking the JTC over a three-year period. That is 1,800 to 2,200 (total over three years) more jobs and an associated tax expenditure of \$2,300 to \$2,600 per job – \$5 million total. This estimate is an upper bound, meaning that these numbers represent the maximum number of jobs attributable to the credit. About 75 percent of the jobs created would have been created without the credit. This credit creates a relatively small number of jobs and a relatively small tax expenditure.

The findings for Georgia are consistent with analysis of other states. In their analysis of Ohio’s job creation tax credit, Gabe and Kraybill (2002) find that this credit had little impact on actual job growth. In their analysis of state investment tax credits Chirinko and Wilson (2008) find that these incentives have a positive but small effect.

One reason that the tax expenditure is relatively low for jobs tax credits is that the participation rate for these types of tax credits is quite low. According to estimates in Faulk (2001), for example, the participation rate for Georgia’s JTC is 19 percent for the 1993-

1995 period. This means that 19 percent of eligible firms took the credit. The low participation rate suggests that there are information problems and/or that the costs of taking the credit are larger than the benefit. One reason the participation rate is low (or the costs of taking the credit is greater than the benefit) is that a large portion of companies have no state income tax liability and therefore would not benefit from taking the credit. Around 44 percent of corporations filing Indiana returns had no tax liability in 2001 (Faulk and Landers 2004). In Georgia about 75 percent to 88 percent of “C” corporations have no corporate income tax liability in a given year. (It is about 65 percent in North Carolina). The low participation rate suggests that there are large numbers of firms that are not influenced by these credits. Faulk (2008) provides analysis of a variety of factors that affect the use of business tax credits including tax liability, targeting, credit ceilings and refundability.

Georgia’s JTC is structured so that jobs created in distressed areas (determined by the tier designation of the county where the business is located like the North Carolina credit) receive a higher credit and have a lower jobs creation threshold. The original intent of this credit structure was to encourage and reward the creation of jobs in distressed areas because distressed areas benefit more from the creation of a job. There is general consensus in the literature that incentives should promote employment in distressed areas. In this case, the credit is a form of government intervention in response to a market failure. If incentives do work, creating jobs in nondistressed areas may have undesirable secondary consequences from the firm’s perspective, making tight labor markets even tighter and putting upward pressure on wages, which ultimately could decrease firm locations and expansions.

Analysis of Georgia’s JTC program suggests that the higher credit amount for jobs created in distressed areas is not a significant determinant of a firm taking the credit. This

suggests that the credit is not effective at encouraging job creation in distressed areas. Gabe and Kraybill (1998) show a similar result for Ohio's Job Creation Tax Credit. The Ohio credit is structured as a percentage of income taxes withheld from workers. To our knowledge the only study that shows that geographic targeting works for this type of credit is the Sohn and Knapp's (2005) analysis of Maryland's Job Creation Tax Credit. They show that the Maryland credit does concentrate jobs in urban areas for certain industries. The credit was designed to target urban areas to mitigate sprawl.

While these jobs tax credits may not be effective in creating jobs in targeted areas or otherwise, they may serve as a way to signal a positive business climate, and the higher credit amount in distressed areas may signal that policymakers are aware of the challenges in these areas.

RESEARCH ON DISCRETIONARY TAX CREDITS

All states employ at least one – and often many – tax credits that are applied at the discretion of economic development authorities. These tax credits are more frequently criticized simply because there is a human, not merely statutory, element to their application. Also, these programs more often target specific industries than do statutory tax credits (which tend to be more focused on regions than industries). The research questions surrounding discretionary tax credits mirrors those of statutory tax credits. Simply, did the credit actually incentivize the firms' location or expansion decision?

Any review of discretionary tax incentive studies must begin with a 1997 Federal Reserve Bank review of research findings that examined more than 90 studies that evaluated the role of fiscal policy in economic growth (Wasylenko 1997). More recent studies include research by Anderson and Wassmer (2000), who examined local tax incentives in urban areas, focusing on the Detroit area. Both

of these studies identify difficulties in matching targeted industries with actual local human capital availability. They also report little empirical support to conclude that these tax incentives yielded net benefits to communities.

The most recent policy debate – which has also enjoyed significant research evaluation – is the Michigan Economic Growth Authority (MEGA) incentives that have been in place since 1995. These studies include a book written in 2005 (LaFaive and Hicks 2005) and an academic study that followed (Hicks and LaFaive 2010). Also, studies by the Upjohn Institute (Bartik and Ericceck 2010) and Anderson, Bolema and Rosaen (2010) reviewed the program. The Upjohn Institute study used a simulation model to estimate impacts of the program, reporting modest job creation, at costs in the \$4,000 per job range. The Anderson, Bolema and Rosaen study used a different simulation model to estimate impacts, finding no net job creation.

The studies by Hicks and LaFaive approached the problem by analyzing historical data on employment and earnings and tax incentives provided by the MEGA program. Data limitations permitted these authors to examine only two of the four targeted industries (manufacturing and warehousing/wholesale). The other eligible entities (headquarters and high technology firms) were too poorly defined to match to existing secondary data on economic activity. The Hicks and LaFaive models included techniques that accounted for existing trends, local and annual factors that could bias the findings and were also tested on other industries to assess the sensitivity of the model to the MEGA incentives. In particular, the model tested whether the MEGA incentives increased construction earnings, because most of the recipient firms also built new plants or equipment. Hicks and LaFaive reported no discernable impact on employment or earnings in manufacturing or wholesale as a consequence of the MEGA credits. They did find that the incentives

“While these jobs tax credits may not be effective in creating jobs in targeted areas or otherwise, they may serve as a way to signal a positive business climate...”

boosted construction employment at an annual cost of roughly \$124,000.

All three of the study approaches to MEGA have limitations. The Upjohn Institute and Anderson, Bolema and Rosaen studies, which had very different findings, both required very strict assumptions about how big the effects might be. While these assumptions were drawn from other scholarly studies of tax effects on incentives, none were particular to Michigan. Further, any change in the assumptions would change the results to a degree which would change the conclusion about the direction of the impact.

The Hicks and LaFaive study had a different problem known as endogeneity. This problem occurs when the randomness of the tax credit is in question. The particular worry is that the credits might be targeted to counties that are losing manufacturing jobs at the highest rate. This would cause the statistical model to misidentify the jobs and earnings effects. While the study went to great lengths to correct this problem through what is formally referred to as an ‘identification strategy,’ and was successfully vetted through a peer review process, some doubt will always remain.

The different findings, which are sensitive to assumptions and underlying characteristics of the program, make a clear interpretation by policymakers a difficult task. More high quality research on the matter is an important tool for furthering good public policy and understanding of discretionary tax incentives.

CONCLUSIONS AND EXTENSIONS

In a time when all states offer some form of tax incentives, the argument that state government requires some incentives is seductive. Analysis on types of tax incentives continues to provide mixed results, with some modest success stories and horrendously expensive failures. A better understanding of the actual impact of tax incentives here in Indiana and better understanding of how the effects may be influenced by program specif-

ics is needed.

There are other issues involving tax incentives that have received little rigorous study. We know little about the magnitude of local property tax abatement in Indiana. A comprehensive analysis has never been done. It is likely that aggregate local property tax abatement is larger than any other type or combination of state economic development incentive. The magnitude of local property tax abatement raises questions about the distribution of the property tax burden among taxpayers, the level of competition among local jurisdictions to attract or keep jobs, and the ultimate effect on local government budgets.

No rigorous study of Indiana’s discretionary tax incentives has ever been done. Statutory tax credits taken on individual income tax returns are reported in the *Indiana Handbook of Taxes, Revenue and Appropriations*. No regular information is available on tax credits taken by “C” corporations. Data reported at the state level is not complete enough to permit simulations or statistical modeling, though the data availability in Indiana is better than in most states.

The availability of venture capital is linked to start ups – particularly the start up of high tech firms. Government intervention in markets should occur when there is a market failure. The involvement of a quasi government organization in venture capital market may be an appropriate response to the limited amount of venture capital available in Indiana relative to the east and west coasts. While a recent study of Indiana’s 21st Century Funds found a small but positive impact (Devaraj and Hicks 2010), ongoing analysis is needed.

The uncertainty about the effects of tax incentives in Indiana is a significant public policy problem. The lack of knowledge about tax incentives weakens an integrated and thoughtful approach to economic development policy. More importantly, rigorous analysis about the effectiveness of tax incen-

“The different findings, which are sensitive to assumptions and underlying characteristics of the program, make a clear interpretation by policymakers a difficult task.”

tives would move the debate about economic development incentives in Indiana from its historically partisan arena toward a more information-driven policy process.

REFERENCES

- Anderson, J. E., and R. Wassmer. 2000. *Bidding for business: The efficacy of local economic development incentives in a metropolitan area*. W.E. Upjohn Institute.
- Anderson, P.L., T.R. Bolema and A.L. Rosaen. 2010. Effectiveness of Michigan's key tax incentives. Anderson Economic Group, Inc. March.
- Bartik, T. and G.A. Ericheck. 2010. The Employment and Fiscal Effects of Michigan's tax Credit Program. Upjohn Institute Working Paper No. 10-164.
- Chirinko, R.S. and D.J. Wilson. 2008. State investment tax incentives: A zero-sum game? *Journal of Public Economics* (92):2362-2384.
- Devaraj, S. and M. Hicks. 2010. Comprehensive examination of the performance of the Indiana 21st century research and technology funds. Center for Business and Economic Research, Ball State University, September.
- Faulk, D. 2008. The efficacy of state business income tax credits as a policy tool. *State Tax Notes* 49.1 (7 July):35-44.
- . 2002. Do state economic development incentives create jobs? An analysis of state employment tax credits. *National Tax Journal* 55.2 (June):263-280.
- . 2001. The participation of firms in tax incentive programs. *Review of Regional Studies* 31.1 (Summer):39-50.
- Faulk, D. and J. Landers. 2004. Business income taxes in Indiana: Who pays? *Indiana Business Review* (Fall):1-4.
- Gabe, T.M. and D.S. Kraybill. 1998. Tax incentives and offers in a state economic development program. *Review of Regional Studies* 28.3 (Winter):1-14.
- Hicks, M.J. and M. LaFaive. 2011. Influence of targeted economic development tax incentives on county economic growth: Evidence from Michigan's mega credits" *Economic Development Quarterly* (forthcoming).
- LaFaive, M. and M.J. Hicks. 2005. *MEGA: A retrospective assessment*. Mackinac Center for Public Policy.
- Sohn, J. and G. Knapp. 2005. Does the job creation tax credit program in Maryland help concentrate employment growth? *Economic Development Quarterly* 19.4 (November):313-326.
- Wasylenko, M. 1997. Taxation and economic development: The state of the economic literature. *New England Economic Review* (March/April):37-52.

“...rigorous analysis about the effectiveness of tax incentives would move the debate about economic development incentives in Indiana from its historically partisan arena toward a more information-driven policy process.”

CENTER FOR BUSINESS AND ECONOMIC RESEARCH **POLICY BRIEF**

About the Center:

The Center for Business and Economic Research, formerly the Bureau of Business Research, is an award-winning economic policy and forecasting research center housed within Ball State University's Miller College of Business. CBER research encompasses health care, public finance, regional economics, transportation and energy sector studies. We publish the *American Journal of Business*—a peer-reviewed scholarly journal—and the *Indiana Business Bulletin*—a weekly e-newsletter with weekly commentary and regularly updated data on housing, wages, employment, consumption, exchange rates and dozens of other economic indicators that provide evidence of the direction of change in the local, state and federal economy. In addition to research, we serve as the forecasting element in the Muncie area—holding five state and federal economic forecasting roundtables.

Center for Business and Economic Research
Miller College of Business, Ball State University
Whiting Business Building, room 149 • Muncie, IN 47306
Phone: 765-285-5926 • Fax: 765-285-8024

www.bsu.edu/cber



Whiting Business Building, room 149
2000 W. University Ave.
Muncie, IN 47306