

The background of the page features a large, light blue watermark of the Seal of the State of Illinois. The seal is circular with a rope-like border. Inside the border, the words "SEAL OF THE STATE OF ILLINOIS" are written in a circular path. In the center, there is an eagle with its wings spread, perched on a shield. The shield is divided into four quadrants. Below the eagle, there is a banner with the date "1818" and another banner with "1868". At the bottom of the seal, the text "JANUARY 1818" and "U.S. 26TH 1818" is visible.

**Analysis
of Selected
Illinois Business
Tax
Incentives**

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DEVELOPMENT

JOHN E. BRADLEY
STATE REPRESENTATIVE • 117TH DISTRICT

February 20, 2009

At its most basic level, the House Revenue and Finance Committee was formed to consider legislation that will have an impact on revenue streams and legislation to utilize existing or new revenue streams to benefit the people of Illinois. At the same time, the committee also has a duty to the people of this state to thoughtfully consider each idea not solely on its own merit, but also in a way that determines how it will fit with existing law and impact taxpayers as a whole.

At a time of fiscal crisis, taxpayers are looking to us to be good stewards of scarce resources. It's no secret that revenues are declining; this year we may collect less than last year. This means that we need to be even more deliberate as we consider tax expenditures and tax exemptions. Programs that give away tax dollars at no benefit to the state or its residents need to be given a second look, as many bills proposed this year seek to increase, extend or expand such programs.

With this need in mind, the House Revenue and Finance Committee will ask the Commission on Government Forecasting and Accountability, as well as the Governor's Office and the Department of Commerce and Economic Opportunity, to do a study of these types of programs, where data is available, to determine their effectiveness and value. It is our hope that we can get an idea of how we should proceed before the end of this legislative session, recognizing that this could be a lengthy undertaking.

This Committee encourages other bodies that answer to the people, such as the Department of Revenue, to not only be responsive, but to be proactive in working together to complete this study. At the appropriate time, we will release the results, and more importantly, use them as a guide as we move forward in these uncertain times.

RECYCLED PAPER - SOYBEAN INKS

Table of Contents

Executive Summary

Section 1:	Introduction	3
Section 2:	Illinois Income Tax Credits	5
Section 3:	Illinois Sales Tax Exemptions and Credits	17
Section 4:	Summary of Literature	25
Section 5:	Illinois Corporate Accountability Act	29
Section 6:	Comparative State Data	31
Appendices:		
	A Literature Review	47
	Georgia BEST Program Review.	49
Endnotes:	53

The Illinois Department of Revenue (IDOR) has compiled this report as requested. Due to the time constraint, the focus is on the major income and sales tax incentives, prioritizing those scheduled to sunset in 2009. We anticipate this report to be the first in a series that will use various techniques to evaluate Illinois' economic development tax credits and expenditures.

Executive Summary

- Illinois' current business tax incentives benefit a small number of taxpayers. The data suggest that 0.2 percent of all Illinois firms are using the state's schedule 1299 income tax credits. **See page 7.**
The top 20 percent (802) of companies using Manufacturer's Purchase Credit (MPC) account for 98.2 percent of total MPC used over the life of the program. **See page 20.**
- The current Research and Development (R&D) tax credit is not very effective in stimulating additional research and development in Illinois. **See page 10.**
- Further analysis is needed of the
 - Economic Development for a Growing Economy (EDGE) credit. **See page 12;**
 - Personal Property Replacement Tax (PPRT) Investment Credit. **See page 14;** and,
 - Enterprise Zone Program. **See page 16.**
- We recommend keeping the Manufacturing and Assembly Machinery and Equipment (MM&E) sales tax exemption. Most states with sales tax offer a similar exemption. We caution about expanding the MM&E exemption to include tangible personal property used in production in part because
 - the pilot program did not reach its intended audience; and,
 - our estimates indicate expanding the MM&E exemption without a cap has potential to cost Illinois up to \$200 million annually. **See page 19.**
- We recommend allowing the MPC to expire because as a matter of principle, we do not think it makes sense to provide a sales tax credit the value of which is based on taxes that were never paid by the firm in the first place. **See page 21.**
- We believe the Graphic Arts Machinery and Equipment exemption as currently written deviates from the initial intent and should be aligned with the MM&E exemption. **See page 23.**
- The academic literature offers scant evidence that economic development programs and incentives have a significant impact on economic growth. The literature provides little guidance to policy makers trying to fine-tune economic development. **See page 27.**
- The following changes would modify and strengthen the Corporate Accountability Act (CAA) to:
 - Require CAA reporting from all companies that benefit from the incentives that require Department of Commerce and Economic Opportunity (DCEO) certification, regardless of when the companies received the initial DCEO certification. The CAA currently requires reporting only from companies that received initial certification after the CAA was enacted, allowing many companies to circumvent the reporting requirement.
 - Separately report the benefit from each individual incentive. Currently, for example, the CAA progress reports list assistance received under the High Impact Business (HIB) program as a single total, even though the HIB program includes multiple incentives, such as a building materials sales tax exemption, a production consumables sales tax exemption, an investment tax credit, and a utility tax exemption. **See page 30.**

Introduction

Illinois provides a broad range of business tax credits and economic development programs with the intent of

- encouraging the creation and retention of jobs;
- enticing firms to locate in Illinois;
- assisting specific industries or disadvantaged groups currently located in Illinois; and,
- encouraging economic development in impoverished local communities.

This chart details the programs and tax credits and exemptions examined in this report. We focus on this subset primarily due to time constraints.

Incentive Name	Eligible Firms or Activity	Tax Liability Offset ¹	Total Amount Earned	Total Amount Used	Firms Using the Credit
Economic Development for a Growing Economy Credit	Firms creating or retaining jobs in Illinois; excluding retail, retail food, health care, and professional service firms	Corporate Income Tax	\$33.9 M	\$23.1 M	40
Research and Development Credit	Firms conducting research and development activities	Corporate Income Tax	\$41.9 M	\$18.9 M	185
Replacement Tax Investment Credit ²	Manufacturers, Retailers, Miners of Coal or Fluorite that invest in qualified property	Replacement Tax	N/A	\$36.7 M	4,130
Enterprise Zone and River Edge Redevelopment Zone Investment Credit	Firms located in an Enterprise or River Edge Redevelopment Zone that invest in qualified property	Corporate Income Tax	\$11.0 M	\$7.8 M	307
Manufacturer's Purchase Credit (MPC)	Manufacturers	Sales Tax		\$28.0 M	500 Approximately
Graphic Arts Machinery Exemption	Firms purchasing graphic arts machinery	Sales Tax		\$23.0 M	N/A
Manufacturing Machinery Equipment Exemption (MME)	Manufacturers	Sales Tax		\$175 - \$225 M	N/A

Note: Income tax data is for Tax Year 2007. Sales tax data is for fiscal year 2008.

These initiatives include credits and exemptions against corporate income tax, personal property replacement tax, and sales tax targeted to a variety of industries. The common goal is to stimulate or keep economic activity in Illinois.

This report is intended to

- describe the identified programs and incentives;
- discuss generally who is taking advantage of them;
- compare the incentives to other states; and,
- where possible, analyze the effectiveness of the incentives.

Throughout this report we will distinguish between the amount of credit *earned* and the amount of credit *used*. These terms are not interchangeable:

Credit earned refers to a firm claiming an individual credit on its tax return. The firm can either *use* the credit in the current year to offset their tax liability or carry the credit forward.

Note: All of the income tax credits examined in this report have carry-forward provisions.

The amount of **credit used** by a firm in a given year is an aggregate that includes both credits earned in prior years and carried forward as well as credits earned in the current year.

The total amount of credit used in a year is reported by firms. Firms are not required to distinguish between credits used which were earned in prior years and credits used which were earned in the current year. Due to this data limitation, we have to estimate the amount of each individual credit that is used in a year.

The Corporate Income Tax (CIT) credits are used heavily by a small number of businesses. Approximately 0.5 percent of corporate filers (566) used corporate income tax credits to reduce their 2007 income taxes.³ The CIT credits reduced corporate income taxes by \$69.6 million for tax year 2007 returns.

The top 25 credit users claimed \$51.7 million of the \$69.6 million, or 74.2 percent. Seven of these 25 filers, with a combined tax of \$25.2 million, were able to reduce their taxes to zero. The top 25 filers represent 0.02 percent of the 111,252 corporate returns on file for tax year 2007.

This extreme concentration is also reflected in sales tax credits. For example, in the case of Manufacturers Purchase Credit (MPC), the top 25 filers have used 58.6 percent of MPC over the life of the credit. The top 20 percent (802) of companies using MPC account for 98.2 percent of total MPC used over the period.

Data for the Manufacturing and Assembly Machinery and Equipment (MM&E) sales tax exemption expansion pilot program also demonstrate the vast majority of expanded MM&E credits are claimed by a handful of companies.³ Five companies accounted for nearly 60 percent of the expanded MM&E credits claimed during the pilot program, and nearly 80 percent was claimed by just 20 companies.

Approximately 0.5 percent of corporate filers (566) used CIT credits to reduce their 2007 income taxes. The top 20 percent (802) of companies using MPC account for 98.2 percent of total MPC used over the life of the program. Five companies accounted for nearly 60 percent of the expanded MM&E credits claimed during the pilot program, and nearly 80 percent was claimed by just twenty companies.

Income Tax Credits

Illinois levies two taxes on business income:

- Corporate Income Tax (CIT) — levied on C-Corporations on their business income at 4.8 percent
- Personal Property Replacement Tax (PPRT) — levied on C-Corporations, S-Corporations, Partnerships, and Trusts.⁴ C-Corporations are taxed at a 2.5 percent rate by the PPRT, while the rate for the other entities is 1.5 percent.

The PPRT tax is a local tax that happens to be administered by the State. All PPRT revenue is distributed to local governments. Together these two taxes are referred to as business income taxes. The CIT credits are all filed on the Schedule 1299-D, so collectively they are referred to as 1299-D credits.⁵

The most commonly earned business income tax credits (as measured by value) are the Research and Development (R&D) Credit (28.1 percent), the PPRT Investment Credit (27.4 percent), Economic Development for a Growing Economy (EDGE) Tax Credit (20.3 percent) and the Affordable Housing Donations Credit (10.5 percent). Most other income tax credits are earned infrequently, with eight income tax credits totaling just 1.2 percent of all credits.¹

The following table identifies the credits, the amount of credit earned from 2005 to 2007, the percent share of total credits and the number of credits.

Business Income Tax Credits Earned, 2005 – 2007			
Credit	Amount Earned	Percent of Total	Firms Earning Credit
Research and Development Credit	\$120.0 M	28.1%	375
Replacement Tax Investment Credit	\$117.2 M	27.4%	6,401
EDGE Tax Credit	\$86.8 M	20.3%	75
Affordable Housing Donations Credit	\$44.9 M	10.5%	19
Enterprise Zone Investment Credit	\$28.5 M	6.7%	637
Film Production Services Credit	\$19.6 M	4.6%	8
Other 1299-D Credits	\$5.4 M	1.2%	51
High Impact Business Investment Credit	\$5.2 M	1.2 %	29
Total Income Tax Credits Earned	\$427.5 M	100%	7,595

A total of 7,068 different firms earned or used at least one business income tax credit between 2005 and 2007. Of these, only 1,176 earned or used at least one 1299-D credit during this period. Most firms earning or using a business income tax credits used the PPRT Investment Credit and did not earn or use any of the 1299-D credits. An average of 699 firms either earns or uses a 1299-D credit in any one year. This compares with an average of 115,928 CIT filers during this same period. On average, firms earning or using 1299-D credits accounted for approximately 0.6 percent of all annual filers.

Obviously, the amount of 1299-D credits earned varies from year to year. The total amount of 1299-D credit earned during the period under review is consistently larger than the amount used in that year:

1299-D credits earned and used are concentrated among a small number of firms. Below is a chart showing the total amount of 1299-D credit earned and used by the top 50 firms.

Top 50 Firms Earning and Using 1299-D Credits, 2005 – 2007				
Firm Rank	1299-D Credits Used (\$M)	Percent of Total Credits Used	1299-D Credits Earned (\$M)	Percent of Total Credits Earned
Firms 1 – 10	\$118.2 M	55%	\$156.5 M	50%
Firms 11 – 20	\$35.1 M	16%	\$41.3 M	13%
Firms 21 – 30	\$17.6 M	8%	\$26.4 M	9%
Firms 31 – 40	\$10.1 M	5%	\$17.5 M	6%
Firms 41 – 50	\$6.8 M	3%	\$11.9 M	4%
Total, All Firms	\$216.3 M	100%	\$310.3 M	100%

Note: Firms in the 'Used' Column may not be the same firms as those in the 'Earned' Column

The top 50 firms using 1299-D credits account for approximately 87.0 percent of the total amount of 1299-D credits used by all firms. The distribution is even more skewed towards the top, where the top 10 firms account for 55.0 percent of all 1299-D credits used. The distribution is similar for 1299-D credits earned. Individual firms may not have the same rank in both columns due to possible carry-forward of credits earned in the 2005 – 2007 period.

The average firm earning or using a 1299-D credit between 2005 and 2007 had a federally taxable income of \$299.1 million. By SIC Industry Group, most firms who used or earned a credit during this period were in manufacturing (33.0 percent), retail (15.7 percent), wholesale (15.5 percent) or services (12.4 percent). In general, the firms earning and using Illinois' corporate income tax credits tend to be large. The earning and use of these credits is also highly concentrated among a small group of firms, largely in the manufacturing, retail, and wholesale sectors.

Credits similar to the 1299-D credits are also available for individual shareholders or partners in non-C corporations. Shareholders or partners can claim these credits on the 1299-C schedule which in turn pass through to their 1040 tax return. The 1299-C credits used in 2007 totaled \$12.0 million. Approximately 42 percent of total 1299-C credits taken were for Economic Development for a Growing Economy (EDGE) Credit, while 35.2 percent was for R&D credit. Looking at the characteristics of those returns claiming the 1299-C credits, the average Adjusted Gross Income (AGI) for those claiming the EDGE credit was \$6.9 million, while for R&D credit the corresponding figure is \$2.6 million.

A 2006 study estimates that non-C firms have on average 31.44 shareholders.⁷ Using this average, and given that there are 2,747 individuals claiming 1299-C credits on their 2007 return, we estimate that approximately 87 firms are benefiting from the credits.

Key Findings: If we add the number of firms claiming the 1299-D credit to the estimated number of firms claiming the 1299-C credit, we estimate that a total of 626 firms use either set of credits. The US Census indicates that in 2006 there were 266,479 total firms in Illinois. These figures suggest that 0.2 percent of all Illinois firms are using the state's schedule 1299 income tax credits.

Research and Development Credit

Program Description

Illinois' Research and Development (R&D) credit, which took effect in 1990, was modeled on the federal R&D credit in place at that time.⁸ It is a nonrefundable corporate income tax credit equal to 6.5 percent of the incremental increases in qualified R&D expenditures within the State. The credit can be carried forward, up to five years, after it is earned.

Qualifying R&D expenditures are defined under Internal Revenue Code, Section 41. Three general conditions must be met for expenditures to qualify for the R&D credit. Qualifying expenditures must help discover information that is technological in nature, be useful in the development of a new or improved business component, and be considered experimental in its relation to improving business component function, performance, or quality. Research is considered technological in nature if the process of experimentation used to discover such information fundamentally relies on principles of the physical or biological sciences, engineering, or computer science.

Illinois' credit is calculated similar to how the federal R&D credit was calculated before 1990. The R&D credit establishes a baseline level of expenditures that is the average of the previous three years' expenditures. The incremental increase is the level of current year R&D expenditures that exceeds the three-year baseline. The credit is then the rate of 6.5 percent times the incremental increase in R&D expenditures.

There are a small number of relatively large manufacturing or wholesale firms who earn most of the R&D credit in Illinois. Between 2005 and 2007, a maximum of 252 firms earned the credit. A majority (61.0 percent) of the R&D credits earned in 2007 were earned by the manufacturing industry.⁹ Firms earning the R&D credit in 2007 had an average federally taxable income of \$181.5 million, compared with an average federally taxable income of under \$10.0 million for all corporate (1120) filers. The top 25 firms by R&D credit earned between 2005 and 2007 accounted for 89.7 percent of all credits earned during that period.

Top 25 Firms by R&D Credit Earned, 2005 – 2007				
	2005	2006	2007	Total Credits
Credit Earned by Top 25 Firms	\$33.9 M	\$37.2 M	\$36.5 M	\$107.6 M
Total Credit Earned	\$35.5 M	\$42.7 M	\$41.9 M	\$120.0 M
Percent of Total Credit Earned	95.6%	87.3%	87.1%	89.7%

See page 31 for comparative state data.

Program Analysis

Illinois' R&D credit was originally intended to increase R&D activity and employment in the State. Debate transcripts from the Illinois House support this idea. As one legislator argued at the time, "The R&D credit is] a way of attracting people who work on research. It's aimed more at bringing in people, jobs that deal with research and development, new products."¹⁰

A general consensus among economists is lower R&D costs stimulate increased R&D investment.¹¹ Thus, it is necessary to address at least two questions in evaluating Illinois' credit:

- (1) Does the R&D credit effectively reduce the cost of conducting in-state R&D?
- (2) Does the R&D credit yield a positive benefit/cost ratio to the Illinois taxpayers?

Evidence suggests Illinois' R&D credit does little to reduce the after-tax cost, to the taxpayer, of R&D investment and as a result is largely ineffective in stimulating additional R&D over and above what would happen in the absence of the credit. Given this conclusion, we tentatively suggest the credit may not have a positive benefit cost ratio. Additional research, data collection, and analysis would need to be performed to fully answer this second question.

One way to measure the annual cost of making a \$1 R&D investment is termed the user cost of capital. The annual cost has three major components:

- asset depreciation;
- forgone investment returns; and
- state and federal taxes.

The following table illustrates user cost estimates by state. The differences are explained entirely by differences in states' corporate income taxes and R&D credit rates. Depreciation, forgone investment returns, and federal taxes do not vary by state.

For example, before considering an R&D credit, the annual cost of making a \$1 R&D investment in Illinois and Iowa is \$0.213 and \$0.219, respectively. The difference between these two costs is attributable solely to Iowa's higher corporate income tax rate. Once the R&D credit is considered, the user cost in Illinois and Iowa is \$0.212 and \$0.211, respectively. The greater absolute decline in Iowa's user cost is explained by Iowa's higher effective R&D credit rate.

After-Tax Cost of R&D Investment by State, 2007 ¹²				
State	Statutory R&D Credit Rate (%)	After-Tax Cost of R&D Investment (%)		
		Without R&D credit	With R&D credit	Change in cost
Illinois	6.5	21.3	21.2	-0.5
Indiana	10.0	21.5	20.7	-3.9
Iowa	6.5	21.9	21.1	-3.8
Kentucky	n/a	21.2	21.2	n/a
Missouri ²⁵	n/a	21.1	21.1	n/a
Wisconsin	5.0	21.2	20.2	-5.0

As the chart indicates, without R&D credits, Illinois has a cost structure similar to the two surrounding states that do not have an R&D credit and Wisconsin. Indiana and Iowa have relatively higher cost structures overall than Illinois. After adding in the effect of R&D credits, Indiana and Wisconsin have a lower cost structure than the rest of the Midwest states, including Illinois. The cost differential among the remaining four states, including Illinois, is insignificant.

Of the top 20 firms earning the credit between 2005 and 2007, seven (7) earned zero credit in two of the three years, and thirteen (13) of these firms earned an average of 67.2 percent of their total credit in only one of the three years on record. This pattern of “lumpy” expenditures means it is very unlikely firms are investing large amounts in R&D employment as a result of this credit. It seems unlikely a firm would hire a large number of researchers one year only to lay them off in the next year for tax reasons. This pattern is borne out by the rest of the firms earning the R&D credit. A total of 375 firms earned the R&D credit between 2005 and 2007. Of these firms, 26 earned the credit all three years, 121 earned the credit in two of the years, and 228 earned the credit in only one year of the data.

Program Legislation

The R&D credit was repealed in 2003 and reinstated in 2004. The credit is currently scheduled to sunset in June of 2009. The Governor’s budget proposal includes allowing the credit to expire at a net benefit to the state of \$25.0 million. There are currently several bills in the Illinois General Assembly proposing to extend and modify the R&D credit in some form. Below is a table showing the bill name, the major provisions of the bill, and the estimated annual cost to the state:

Bill Name	Major Provisions	Estimated Annual Cost
HB 0627	Increase rate from 6.5 percent to 12.0 percent, cut the baseline in half	Minimum of \$170 M
SB 1671	Increase rate from 6.5 percent to 8.0 percent	\$55 M

Key Finding: The current R&D tax credit is not very effective in stimulating additional R&D in Illinois. Firms using the credit tend to be small in number and large in size.

Economic Development for a Growing Economy (EDGE) Credit

Program Description

The Economic Development for a Growing Economy (EDGE) Credit is a credit awarded by the Department of Commerce and Economic Opportunity (DCEO) to firms in select industries that are proposing new investment in Illinois to create or retain a certain number of jobs. The total amount of credit awarded by DCEO is subject to negotiation, but cannot exceed the amount of Individual Income Tax that would be generated during the taxable year through the compensation of new employees created by the project. In order to be awarded the credit, firms must apply to DCEO and their investment plan is scrutinized by a committee made up of representatives of several state departments and a representative of the locality where the project will take place.

Although there are guidelines written into the law, DCEO has a certain amount of discretion in determining who is awarded credits and under what conditions. The rate and duration of the credit are negotiable, except that the rate may not exceed 100% of the increase in Individual Income Tax as a result of the project, and the duration may not exceed 10 years. EDGE Credits for firms initially certified by DCEO after 2003 are subject to disclosure under the Corporate Accountability Act.¹³

Program Analysis

The EDGE credit earned is highly concentrated among the top earners. The EDGE credit was earned by 75 unique firms between 2005 and 2007. Of those firms, the top 25 earned \$71.6 million (82.5 percent) of the total \$86.8 million.

EDGE Credit Earned, 2005 - 2007	
	Total Amount Earned
Top 25 Firms	\$71.6 M
Total, All Firms	\$86.8 M
Top 25 Firms As a Percentage of Total Earned	82.5%
Total Unique Firms Earning a Credit	75

Firms that earn the EDGE credit tend to be large manufacturing or wholesale firms. Firms earning the credit between 2005 and 2007 tend to be very large, with an average federally taxable income of \$1.09 *billion*. By industry, 73.2 percent of EDGE credits went to firms in manufacturing or the wholesale trade.¹⁴

In theory, the EDGE credit could be revenue neutral or even revenue positive for the State of Illinois. The maximum amount of the credit allowed by the EDGE legislation is set at the total amount of incremental withholding taxes generated by new employment created by EDGE investments. Because the credit is set in negotiation with the DCEO, the total amount of the credit awarded could be lower than the incremental withholding taxes generated by the project, meaning what Illinois loses in corporate income tax would be more than offset by the increase in individual income tax. Additionally, firms may not actually use all of the EDGE credits earned to offset any tax liability. Therefore, the actual revenue loss to the state may be less than the amount of EDGE credits awarded by the State.

However, it is unclear the credit actually is revenue neutral or revenue positive. First, in order for the incremental income tax revenue from new jobs created by EDGE to be a net benefit to the state, all of the new employees hired must either be currently unemployed or come to Illinois from other states. If EDGE projects hire employees who currently have other jobs in Illinois, the net increase in income tax revenue from that hiring decision is likely to be very small. Second, the job targets for EDGE can include jobs *retained*, not just jobs created. The incremental individual income tax revenue generated by jobs *retained* is likely to be very small and could be zero.

Finally, there is no reliable way to measure the impact of EDGE on employment (and individual income tax revenue) because it is unclear what the net effect of favoring certain firms and industries over others will have on the longer-term employment prospects of Illinois. By encouraging investment in these firms and industries, the state may be crowding out investment in other firms or industries that could create an equal or greater number of jobs.

Proposed Legislation

There are several proposed bills related to the EDGE credit in the 96th General Assembly.

Bill Name	Major Provisions	Estimated Annual Cost
HB0148	Firms awarded a credit may opt to retain withheld individual income in lieu of receiving a corporate income tax credit, not to exceed the original credit amount.	N/A
HB3968	Allows credits to be transferable between firms.	N/A

Key Findings: IDOR does not have enough information to analyze the EDGE credit program from a cost/benefit perspective. We suggest IDOR and DCEO work together on such a study, using the Regional Economic Models Inc. (REMI) model and other analytic tools where applicable. We also suggest that the study include a comparison of similar programs in other states, focusing on our neighboring states.

Investment Tax Credits

Illinois has a patchwork of investment credits that include the Enterprise Zone Investment Credit, Replacement Tax Investment Credit, River Edge Redevelopment Zone Credit, and High Impact Business Credit. Prior to January 1, 2009, Illinois had six different investment tax credits based on placing qualified property into service and were valued at 0.5 percent of the basis value of that property. The different investment tax credits are restricted by firm, industry, qualifying activities, and location. Firms are able to earn as many of the investment credits as they are qualified for during a given year and for a given project or investment. The table below details the credits.

Illinois Investment Tax Credits				
Investment Credit Name	Tax Affected	Business Type	Location	Additional Activity Required
Replacement Tax Investment Tax	Replacement Tax	Manufacturers, Retailers Miners of Coal or Fluorite	Any location	None
Replacement Tax Investment Tax (Additional)	Replacement Tax	Manufacturers, Retailers Miners of Coal or Fluorite	Any location	Increase employment by 1.0 percent
Enterprise Zone Investment Credit	Corporate Income Tax	Any firm not designated a High Impact Business	Enterprise Zone	None
River Edge Redevelopment Zone Investment Credit	Corporate Income Tax	Any firm	River Edge Redevelopment Zone	None
River Edge Redevelopment Zone Investment Credit (Additional)	Corporate Income Tax	Any firm	River Edge Redevelopment Zone	Increase employment by 1.0 percent
High Impact Business Investment Credit	Corporate Income Tax	Firms designated by DCEO as High Impact Businesses	Any location	Invest at least \$12M and create 500 jobs or invest at \$30M & retain 1,500 jobs. ²¹

Program Description

Illinois' Personal Property Replacement Tax is levied against the net income of C-Corporations, S-Corporations, Partnerships, and Trusts. The tax rate is 2.5 percent of net income for C-Corporations and 1.5 percent of net income for S-Corporations, Partnerships, pass-through entities, and Trusts.

The Replacement Tax Investment Credit gives firms a 0.5 percent investment credit for qualified property placed into service in Illinois. Qualified property is tangible, depreciable property with a useful life of greater than 4 years. Only firms in the manufacturing, retail, or mining sectors are eligible for this credit. Firms can earn an additional 0.5 percent investment credit, for a total credit of 1.0 percent if they increase employment by 1.0 percent during the year. The credit expired as of January 1, 2009, although there are currently 15 bills pending in the legislature with provisions to reinstate the credit.

Personal Property Replacement Tax Investment Credit

Program Analysis

Approximately 7,179 unique firms used the Personal Property Replacement Tax (PPRT) Investment Credit between 2005 and 2007. An average of \$41.3 million in PPRT Investment Credit was used each year between 2005 and 2007, with 80.0 percent of used by C-Corporations. C-Corporations have a higher tax rate than S-Corporations and Partnerships (2.5 percent compared with 1.5 percent), so they may have had more tax liability to offset.

Replacement Tax Investment Credit Used, 2005 - 2007			
Filer Type	2005	2006	2007
Partnership	\$0.5 M	\$0.7 M	\$0.4 M
C-Corporation	\$36.0 M	\$34.8 M	\$29.5 M
S-Corporation	\$7.4 M	\$8.0 M	\$6.8 M
Total	\$43.8 M	\$43.4 M	\$36.7 M

Use of PPRT Investment Credit is not as concentrated among the top 25 firms as it is for the 1299-D credits. Approximately 44.8 percent of all Replacement Tax Investment Credits used between 2005 and 2007 went to the top 25 firms, compared with 89.7 percent for R&D, 82.5 percent for the EDGE Credit and 72.9 percent for the Enterprise Zone Credit.

Replacement Tax Investment Credit Used 2005 - 2007	
	Credit Used
Top 25 Firms	\$55.5 M
Total, All Firms	\$123.9 M
Total 25 Firms as a percentage of total earned	44.8%

Key Finding: Due to time constraints and limited data availability we were not able to conduct a full evaluation. Therefore, we recommend that additional research including a cost-benefit analysis be performed. Part of the evaluation should focus specially on the cost-benefit ratio associated with retailers and utility firms who can and do claim the credit. We are skeptical that the availability of the credit stimulates investment in these industries in particular. We are aware of no study that demonstrates anything to the contrary.

Enterprise Zone and River Edge Redevelopment Investment Credit

Program Description

The Enterprise Zone Investment Credit provides a 0.5 percent investment credit for qualified property placed into service in an Enterprise Zone. Qualified property is tangible, depreciable property that has a useful life of four or more years. Enterprise Zones are economically depressed areas of between ½ square mile and 15 square miles that are designated by local ordinance and DCEO to receive special business incentives. There are currently 97 Enterprise Zones in Illinois.

The River Edge Redevelopment Zone Investment Credit provides a 0.5 percent investment credit for qualified property placed into service in a River Edge Redevelopment Zone. River Edge Redevelopment Zones are areas between ½ square mile and 12 square miles that have at least 100 acres of environmentally challenged land within 1,500 yards of a riverfront. The zones must be located within a single municipality, and are formed in a manner similar to that of the Enterprise Zones. There are currently three River Edge Redevelopment Zones in Illinois. There is an additional 0.5 percent investment credit for qualified property placed into service if the taxpayer's base employment within Illinois has increased by 1.0 percent or more over the preceding year.

The Enterprise Zone and River Edge Redevelopment Zone programs include an array of incentives, including a public utilities tax credit, sales tax credits, the possibility of exemption from certain state regulations, and other forms of assistance. Our analysis is limited to the Schedule 1299-D corporate income tax credit for investments in Enterprise Zones and River Edge Redevelopment Zones. For simplicity, this report will refer to both credits as the Enterprise Zone credit.¹⁵

Program Analysis

Approximately 635 unique firms took the Enterprise Zone Investment credit between 2005 and 2007. The top 25 firms earned approximately 72.9 percent of the total Enterprise Zone credits between 2005 and 2007. Firms in manufacturing, finance and the wholesale trade accounted for 78.2 percent of the amount of credit earned during this period.

Enterprise Zone Credit Earned 2005 - 2007	
	Credit Earned
Top 25 Firms	\$20.8 M
Total, All Firms	\$28.5 M
Total 25 Firms as a percentage of total earned	72.9%
Total Uniques Firms Earning a Credit	635

The latest economic literature on enterprise zones suggests that the zones have no impact on the net number of establishments created, but that there is a slightly positive impact on the number of jobs created by the zones.¹⁶ The Enterprise Zone Investment Credit is difficult to analyze in isolation because it is part of a package of incentives that are available to firms located in the zone. Additionally, local governments may offer incentives to firms within their Enterprise Zones that would not be captured in state-level data. See page 43 for comparative state information.

Proposed Legislation

There are several proposed bills related to the Enterprise Zones and the River Edge Redevelopment Zones in the 96th General Assembly.

Bill Name	Major Provisions	Estimated Annual Cost
HB4126	Allows for the creation of an additional 50 Enterprise Zones.	N/A
HB0147	Adds an additional standard under which an area can qualify as an Enterprise Zone - the area can qualify if it is located in a county where the population has declines in the last 50 years.	N/A

Key Findings: Due to time constraints we were not able to complete a systematic review and evaluation of the enterprise zone program in Illinois. Based on our literature review, we doubt that the program is very effective in meeting its goals of stimulating economic growth and job creation and retention in depressed areas. However, since each enterprise zone program is unique, we therefore suggest that a comprehensive analysis of Illinois’ enterprise zones be conducted. This analysis would factor in all state and local incentives available to and taken by firms located in enterprise zones.

Sales Tax Exemptions and Credits

With respect to sales tax, this study focuses on four incentives offered in Illinois that provide tax relief for manufacturing machinery and equipment: Manufacturer's Purchase Credit (MPC), the Manufacturing and Assembling Machinery and Equipment (MM&E) sales tax exemption, the Expanded MM&E credit, and the Graphic Arts Machinery and Equipment exemption. The following research focuses on:

- Quantifying the revenues losses associated with the incentives.
- Analyzing what types of firms make use of the incentives (subject to disclosure).
- Any proposed Illinois legislation that would impact these incentives and their associated cost.
- How Illinois sales tax incentives compare with the incentives in other states. See page 35 for comparative state information.

Illinois Machinery & Equipment Sales Tax Exemptions/Credits	
Exemption/Credit Name	FY08 Estimated State Government Revenue Loss
MPC	\$28.0 M
MM&E	\$175.0 - \$225.0 M
Graphic Arts Mach. & Equip. exemption	\$23.0 M

Manufacturing and Assembly Machinery and Equipment (MM&E) Exemption

Program Description

In general, Illinois sales tax does not apply to sales of machinery and equipment used primarily in the manufacturing or assembling of tangible personal property for wholesale or retail sale or lease. The manufacturing process is the production of articles of tangible personal property or assembling different articles of tangible personal property by procedures commonly regarded as manufacturing, processing, fabricating, or refining which change some existing material or materials into a material with a different form, use or name. These changes must result from the process in question and be substantial and significant. The exemption does not apply to hand tools, supplies (e.g., rags, sweeping or cleaning compounds), coolants, lubricants, adhesives, or solvents, items of personal apparel (e.g., gloves, shoes, glasses, goggles, coveralls, aprons, masks, mask air filters, belts, harnesses, or holsters), coal, fuel oil, electricity, natural gas, artificial gas, steam, refrigerants or water.

Program Analysis

IDOR's most recent estimates indicate that the MM&E exemption cost the Illinois state government between \$175.0 million and \$225.0 million in fiscal year 2008 (at the 5 percent rate). It should be noted that this estimate is based on data from a secondary source. IDOR does not collect data on specific transactions that involve use of the MM&E exemption. This implies that an in-depth data analysis of the MM&E exemption is not possible due to lack of data. The estimates provided are IDOR's best estimates of cost.¹⁷

The Expanded MM&E Pilot Program

In 2007, the budget implementation bill (P.A. 95-707) allowed for a one year pilot program to provide credits to the purchase of production-related tangible personal property as defined under MPC. This program ran from July 1, 2007 through June 30, 2008 and was capped at \$10.0 million. Industry representatives supporting this initiative argued that their constituents are too small to purchase large MM&E items, and therefore do not earn enough MPC to cover the tax due on their production-related purchases. This bill was a way to provide production-related tax relief to manufacturers who had difficulty earning MPC credits.

Based on information provided by the IDOR's Audit Division, 182 taxpayers claimed credits under the expanded MM&E totaling \$8.7 million during the one-year pilot program. Of this total, 141 taxpayers received tentative approval letters totaling \$1.2 million. The remaining claims were chosen for audit. The result of the audit was to allow \$3.3 million and disallow \$1.9 million, with the remaining \$2.3 million still under audit. Therefore, with \$4.5 million in exemptions already approved, or tentatively approved, this leaves approximately \$5.5 million remaining in available exemptions under the expanded MM&E program, including any exemption claims that currently remain under audit.

The audit information discussed above demonstrates how administratively burdensome the expanded MM&E program has been for IDOR. Under the pilot program, 86 percent of the claimed credits had to be audited by IDOR. If reinstated, and as the number of companies claiming expanded MM&E credits grows, it will become increasingly difficult for IDOR to conduct a thorough audit of the claimed credits.

While proponents of the MM&E expansion argued that its implementation would help small companies, IDOR’s Research staff’s analysis of the companies claiming the expanded MM&E exemption during the one-year pilot program clearly shows that the vast majority of exemptions claimed were made by very large, well-known companies. In fact, many of the large companies who are large users of the expanded MM&E credit are the same companies that are large users of other Illinois tax credits.¹⁸ Therefore, the expanded MM&E exemption is not achieving the result it was originally intended to achieve. Instead of providing an incentive to small companies who otherwise would not receive a tax credit, the expanded MM&E provides very large companies with yet another vehicle through which they are able to reduce or eliminate their tax liability.

The vast majority of expanded MM&E exemptions are claimed by just a handful of companies. Just five companies accounted for nearly 60 percent of the MM&E exemptions claimed during the pilot program, and nearly 80 percent was claimed by just twenty companies. The average 2007 Illinois sales among the top 20 firms was approximately \$1.8 billion. Therefore, the pilot program data clearly indicates that the companies claiming the expanded MM&E exemption were very large companies.

Proposed Legislation

There are two current bills in the Illinois General Assembly that would reinstate the expanded MM&E exemption. One of the bills is handled as a point-of-sale exemption, and the other is handled as a post-sale credit. According to IDOR’s legal staff, the way the current bills are drafted, the expanded portion of the MM&E program would be capped at \$10.0 million.

If the expanded MM&E is to be reinstated, the cap on allowable exemptions is of critical importance. IDOR’s Research Division has developed an independent estimate that indicates that without a cap, the MM&E expansion has the potential to cost Illinois state government between \$150.0 million and \$290.0 million per year. Moreover, since exemptions apply at the time of qualifying purchase, a cap on the associated revenue loss is feasible only if any reinstated expansion is administered as a post-sale credit.

Below is a table showing the bill name, the major provisions of the bill, and the estimated annual cost to the state:

Bill Name	Major Provisions	Estimated Annual Cost
HB3763	Expands the MM&E exemption to include purchases of production related tangible personal property (point of sale exemption)	Expansion is capped at a maximum of \$10.0 M
HB1121	Expands the MM&E exemption to include purchases of production related tangible personal property and extends the exemption through June 30, 2017 (post sales credit)	Expansion is capped at a maximum of \$10.0 M

Key Finding: We recommend keeping the MM&E sales tax exemption as most states with sales tax offer a similar exemption. We caution about expanding the exemption to include production related tangible personal property. First, the pilot program did not reach its intended audience. Second, our estimates indicate that expanding the MM&E without a cap has the potential to cost the state up to \$200 million annually.

Manufacturer's Purchase Credit (MPC)

Program Description

The Illinois Manufacturer's Purchase Credit (MPC) is earned when a manufacturer purchases manufacturing or graphic arts machinery and equipment that qualify for the existing MM&E and graphic arts equipment sales and use tax exemptions – basically firms earn a credit for taxes they did not pay. MPC is equal to 50 percent of the 6.25 percent sales and use tax that would have been due if the machinery and equipment purchase was not otherwise exempt. MPC may be used to pay state sales or use tax on future purchases of qualifying production-related tangible personal property. Tangible personal property, in general terms, refers to property items that can be physically touched, like machinery and equipment. Production-related tangible personal property means all tangible personal property that is used or consumed in a production-related process by a manufacturer in a facility in which a manufacturing process takes place.¹⁹ Production-related tangible personal property also includes all tangible personal property used or consumed by a manufacturer in research and development regardless of use within or without a manufacturing facility. All unused MPC expires the last day of the second calendar year following the year in which the original tax-exempt purchase was made.

Program Analysis

IDOR estimates that the MPC cost the Illinois state government approximately \$28.0 million in Fiscal Year 2008 (based on the state's 5 percent sales tax rate). IDOR's Research staff estimates that during the history of the program, MPC has cost the state (Illinois state and local government combined) a minimum of \$300.0 million.²⁰

Our examination of the MPC data shows most of the MPC used is consumed by a tiny fraction of all MPC accounts.

MPC Used			
No. of Unique Firms	% of all MPC Accounts (4,011 accounts)	Used MPC	% of Used MPC Grand Total
Grand total	100%	\$155.3 M	100%
Top 1	0.02%	\$46.6 M	30.0%
Top 5	0.12%	\$67.0 M	43.2%
Top 10	0.25%	\$75.2 M	48.4%
Top 25	0.62%	\$91.1 M	58.6%
Top 50	1.25%	\$104.4 M	67.2%
Top 100	2.49%	\$119.0 M	76.6%

We find that the top 20 percent of unique firms using MPC accounted for 98.2 percent of MPC since the program's inception.

The table below illustrates that over 45 percent of the MPC is used by firms that employ more than 5,000 employees in Illinois.

MPC Firms and Estimated Employment	
Estimated No. of Illinois Employees	% of Used MPC 1/1/95 - 7/15/08
Over 20,000	34.9%
10,001 to 20,000	1.2%
5,001 to 10,000	10.7%
2,501 to 5,000	4.5%
1,001 to 2,500	9.5%
501 to 1,000	7.6%
101 to 500	19.0%
Under 100	12.6%

Program Legislation

The MPC is due to expire on July 30, 2009, pursuant to the Acts' automatic sunset provisions. However, there is currently a bill in the Illinois General Assembly proposing to extend the MPC.

Below is a table showing the bill name, the major provisions of the bill, and the estimated annual cost to the state:

Bill Name	Major Provisions	Estimated Annual Cost
HB 00023	Extends the MPC until August 30, 2014.	\$28.0 M per year

Key Finding: As a matter of principle, we do not think that it makes sense to provide a sales tax credit the value of which is based on taxes that were never paid by the firm in the first place. While MM&E exemptions are common throughout the country, this is less likely to be the case for tangible personal property used in production.

Graphic Arts Machinery and Equipment Exemption

Program Description:

Until July 29, 2009, the sale of new or used graphic arts machinery or equipment certified by the purchaser to be used primarily (more than 50%) for graphic arts production, including repair and replacement parts, is exempt from the sales and use taxes. The exemption extends to machinery or equipment manufactured on special order or purchased for lease.²¹

Program Analysis:

IDOR's Research staff estimate that the Graphic Arts Machinery and Equipment exemption cost state government about \$23.0 million in fiscal year 2008. However, a firm-specific analysis is not possible at this time due to lack of data. The cost estimates provided herein are estimated costs based on a secondary data source.²²

Program Legislation

Based on discussions with IDOR's legal staff, the Graphic Arts Machinery and Equipment exemption was created with the intent to provide firms in the graphic arts industry with an exemption comparable to the MM&E exemption offered to other manufacturers. However, the current Graphic Arts Machinery and Equipment exemption goes beyond what is offered under the MM&E exemption. Specifically, the Graphic Arts Machinery and Equipment exemption applies to all manufacturing machinery and equipment used in a graphic arts production process, regardless of whether the product made is sold or used by the manufacturer. In contrast, the MM&E applies only to machinery and equipment that is used to make or assemble something for wholesale or retail sale or lease. For example, a company that purchases expensive qualifying graphic arts machinery and equipment to produce its own printed materials, such as a large insurance company who prints its own advertising materials to advertise its firm's services, is able to avoid tax on such equipment.

The Governor's Fiscal Year 2010 Illinois Budget Proposal includes a number of proposed changes to the Graphic Arts Machinery and Equipment exemption. These proposed changes would better align the Graphic Arts Machinery and Equipment with the regular MM&E exemption by limiting its use to machinery and equipment used to make products that are actually sold, leased or provided for free (subject to certain requirements).

This proposed change would reduce the associated Illinois state government revenue loss by \$10.0 million annually (at Illinois' 5 percent state sales tax rate).

The Graphic Arts Machinery and Equipment exemption is due to expire on July 30, 2009, pursuant to the Acts' automatic sunset provisions. However, there is currently a bill in the Illinois General Assembly proposing to extend this exemption.

Below is a table showing the bill name, the major provisions of the bill, and the estimated annual cost to the state:

Bill Name	Major Provisions	Estimated Annual Cost
HB 00023	Extends the exemption for Graphic Arts Machinery and Equipment until August 30, 2014.	\$23.0 M per year

Key Findings: The Graphic Arts Machinery and Equipment exemption as currently written deviates from the Illinois General Assembly’s original intent, which was to provide the Illinois graphic arts industry with a machinery and equipment exemption that mirrors the general MM&E exemption. In order to align the current Graphic Arts Machinery and Equipment exemption with this intent, the exemption should be changed to exempt only graphic arts machinery and equipment that is used to produce items intended for sale, lease, or limited free transfer.

Summary of Literature²³

The purpose of this section of the study is to present major findings and recommendations on economic development program evaluation found in the academic literature. It includes a discussion of a major economic development program evaluation conducted in the state of Georgia over the period 1999-2001, because the study provides guidance on how to move forward with an evaluation of major economic development programs in the real world. Finally, this section concludes with a series of recommendations based on a combination of the literature and our own research.

From an economic perspective, tax incentive programs should at least conform to the policy provisions below:

- While many local government entities that promote economic development provide business subsidies, they often do not know if the firms receiving subsidies benefit the entity as much as the cost of the subsidies. Government officials should be encouraged to require cost-benefit studies prior to making large incentive awards to individual firms, firms in targeted sectors, or firms in certain locations and inaugurating new or revised tax incentive programs. Policy makers should use only those programs whose benefits outweigh the costs of those programs. The costs-benefit analyses should not focus only on fiscal effects; they should also examine social effects as well. Costs and benefits should examine a broad array of alternative uses of public monies including opportunities forgone, and not just at the incentive itself.
- Require periodic evaluations of all tax incentive programs.
- Require sunset provisions for all economic development legislation, terminating programs unless reauthorized by the legislature.
- Require truth and disclosure in financing provisions.
- Require legally binding performance contracts.
- Rather than promoting diverse incentives in search of a cohesive strategy, states should employ only those incentives that make strategic sense.
- Eliminate entitlements to incentive programs that would provide incentives to just any business that wants them.
- Encourage public participation in, and comment on the use of tax incentives in order to foster public accountability.
- It is argued that most evaluations are too simplistic and tend to focus primarily on job creation. The evaluation could be broadened beyond the number of jobs created by also considering issues such as:
 - What kind of jobs are created in which economic sectors?
 - Who gets the jobs?
 - How do new jobs affect the distribution of income in a community?

The academic literature relating to business tax incentives has not produced conclusive results, but suggests that when taken in isolation their impacts on employment, business location, and business investment are likely to be either small or negligible.

A review article by Terry Buss assesses the state of knowledge pertaining to the relationship between taxes, related factors, and economic growth, as well as the use of tax incentives to influence business locations.²⁴ The review suggests that although tax studies have become increasingly sophisticated, especially during the past decade, they have tended to yield conflicting results regarding whether taxes have a material impact on business decisions. The author claims that while some studies focus on costs and benefits of tax incentives, few examine whether public monies could have been better spent, or whether tax incentives were economically justified. As a result, Buss claims that studies offer little guidance to policy makers concerned with fine-tuning tax rates or tax offerings, and effectively employing tax incentives as economic development tools. The paper identifies many justifications for using tax incentives, including:

- Protecting the state from losing business to other states.
- Shielding businesses from competition.
- Rescuing failing firms.
- Attracting outside firms.
- Attracting new start-up businesses.
- Due to uncertainty with respect to private business's true intentions, states must offer incentives as a hedge.
- Since most states offer tax incentives, states must not deny policy makers these development tools.
- States view tax incentives as "free money" (not part of the budget process).
- Perception that costs outweigh benefits.
- Incentives provided will eventually be repaid directly or indirectly in taxes and growth.
- Government intervention is so pervasive in markets that tax incentives are minor intrusions.
- Market failure in state economies can be corrected by using incentives.

Despite identifying many justifications for using tax incentives, the author asserts that research fails to measure the extent to which markets have failed, and the extent to which tax incentives were justified. Buss provides several possible reasons why states would prefer not to evaluate tax incentive programs, including: policy makers do not want embarrassing information about their programs to be publicly disclosed; states may prefer to fund programs than studies; and/or states would not use evaluation results even if available, so many do not bother.

Many US local governments that promote economic development provide business subsidies, creating high levels of risk and uncertainty. Sullivan claims that the main concern of local governments is that the cost of subsidies may outweigh the benefit that firms and cities receive as a result of providing the subsidies.²⁵ To overcome this risk of uncertainty, many local governments now use subsidy controls, such as performance agreements, clawback clauses, and evaluation policies. A positive association exists between subsidies and controls. Governments that give more in subsidies tend to employ more subsidy controls. This suggests that there is not a trade-off, but rather a complementary relationship between promoting development aggressively using subsidies and regulating businesses to ensure that city residents benefit from the subsidies.

A 1999 article by Goss and Phillips discusses tax incentives in Nebraska.²⁶ Analysis of the data from 1987-1995 concluded that qualifying business investment:

- Had a positive and statistically significant impact on economic growth for low-unemployment counties.
- Had no statistically significant impact on economic growth for high-unemployment counties.
- Tended to be undertaken in areas with historically higher investment activity, thus contributing to greater economic performance differences among counties in the state.

There is a fairly extensive academic literature on enterprise zones. Having said that, although enterprise zones have been a popular economic development tool for many years, there is still a lack of evidence regarding both zone effectiveness and how to improve existing zone programs.²⁷ Popularity of enterprise zones appears to be based more on conceptual arguments than on empirical evidence.

Key Findings: We include this brief summary of the literature to inform the reader that there is scant evidence that economic development programs and incentives have significant impact on economic growth. The literature now in hundreds of publications, provides little guidance to policy makers trying to fine-tune economic development. Firms may need tax incentives to increase their viability in some locations, but researchers cannot definitively say which businesses or which locations.

Shortly after taking office in January, 1999, Georgia's Governor Barnes requested a study of Business Expansion Support Team (BEST) that would serve as the basis for recommending changes to it. In 1999, Governor Barnes asked the Fiscal Research Program in the Andrew Young School of Policy Studies at Georgia State University to conduct such a study. The results of this study are summarized below.²⁸ An extensive review and evaluation of all aspects of BEST was conducted, including the effect of job tax credits on job creation. The authors found that:

- It is not possible to evaluate development efforts unless objectives are clearly stated at the outset. The articulation of objectives must precede program design if economic development efforts are to be successful.
- Possible objectives include the following: create jobs, retain jobs, change industry mix, reduce intrastate economic welfare disparities, reduce inter-group welfare disparities, attract high-technology companies, create industry cluster development, improve job quality, and improve fiscal conditions.
- The researchers did not believe their role was to recommend specific changes to BEST. Rather they saw their role as pointing out what was good and bad about BEST and then to present options for change, along with a discussion of the advantages and disadvantages of each of these options.
- The researchers began their study by meeting bi-weekly with a small advisory team composed of representatives from the Governor's staff and his office of Planning and Budget. This group helped to determine the direction of the research project. At the first meeting, the researchers presented a list of the questions to be addressed and the information that would be in the report. This became the basic outline for the study and report.
- The involvement of a high-level team of government employees meant that researchers had access to institutional knowledge and sources of information that were very important for the analysis.

Key Findings: It is not possible to evaluate development efforts unless objectives are clearly stated at the outset. The articulation of objectives must precede program design if economic development efforts are to be successful. High level government employees familiar with the programs, incentives and data must be involved in any evaluation efforts.

Illinois Corporate Accountability Act

In 2003 the Illinois legislature passed the Illinois Corporate Accountability Act (CAA) which imposes stringent guidelines for increasing the accountability and transparency of business tax incentives.²⁹

The CAA requires reporting of firm-level tax exemptions or credits authorized by DCEO development programs. The CAA requires disclosure of incentives including the Economic Development for a Growing Economy (EDGE) tax credit, River Edge Redevelopment Zone investment incentives, Enterprise Zone incentives, the High Impact Business credit, and several other forms of state assistance to corporations.

In our opinion, there are some unanticipated gaps in the legislation because not all incentives are covered by the CAA. Several income tax credits, including the R&D credit, the Affordable Housing Donations credit, the Film Production Services credit, and a host of smaller incentives, are not included in the language of the Act and are not subject to disclosure. Additionally, general sales tax exemptions like the MM&E exemption, MPC, and Graphic Arts Machinery and Equipment exemption are also not included.

More importantly, not all businesses that use DCEO-sponsored incentives are required to report their use under the CAA. Only businesses that were initially certified for the DCEO development programs after the CAA was enacted in August 2003 have to report. In practice this excludes most businesses from CAA reporting. For instance, in 2007, DCEO reported \$10.7 million in EDGE credits earned for C-Corporations, while IDOR's data indicates that \$33.9 million in EDGE credits was earned by C-Corporations in 2007. Only 40.4 percent of C-Corporations earning an EDGE in 2007 were required to report under the CAA.

In addition, the available CAA data does not necessarily match the tax data used by IDOR in this analysis. First, IDOR data is based on the corporate tax year while the Corporate Accountability data is based on the calendar year. While many firms use the calendar year as their tax year, some do not. Depending on the month in which DCEO awards the credit, it may or may not show up in the firm's tax return for that year. Second, the CAA data includes C-Corporations, S-Corps and other pass-through entities, while IDOR's analysis is based on C-Corp data due to the difficulty of translating pass-through income from the individual claiming them on his or her tax return to the firm. Finally, there are firm-level discrepancies between the CAA data and IDOR's tax return data even after looking only at C-Corporations whose tax year is the same as their calendar year.

- Robust evaluations of economic development policies are extremely difficult to design and conduct
- Creating counterfactuals and adequately measuring program outcomes as opposed to processes are two of the most formidable challenges.
- To overcome this risk uncertainty, many local governments now use subsidy controls, such as performance agreements, clawback clauses, and evaluation policies.
- A positive association exists between subsidies and controls. Governments that provide more in subsidies tend to employ more subsidy controls.

- There is a complementary relationship between using subsidies to promote development and regulating businesses to ensure that residents benefit from the subsidies.

Key Findings: The following changes would modify and strengthen the CAA to:

1. Require CAA reporting from all companies that benefit from the incentives that require DCEO certification, regardless of when the companies received the initial DCEO certification. The CAA currently requires reporting only from companies that received initial certification after the CAA was enacted, allowing many companies to circumvent the reporting requirement.
2. Separately report the benefit from each individual incentive. Currently, for example, the CAA progress reports list assistance received under the High Impact Business (HIB) program as a single total, even though the HIB program includes multiple incentives, such as a building materials sales tax exemption, a production consumables sales tax exemption, an investment tax credit, and a utility tax exemption.

State Corporate Income Tax Rates and R & D Tax Credits

State	Corporate Income Tax Rate(s)	R&D Credit Statutory Rate	R&D Credit Description
Alabama	6.5	N/A	Does not offer R&D tax credits.
Alaska	1.0 - 9.4	N/A	Does not offer R&D tax credits.
Arizona	6.968	20/11	<ul style="list-style-type: none"> • 20% of first \$2.5 million incremental research costs (defined by section 41 of the IRC); and • 11% of incremental research expenses in excess of \$2.5 million.
Arkansas	1.0 - 6.5	10	10% of qualified in-house research expenses conducted in the state.
California	8.84	24/15	<ul style="list-style-type: none"> • 24% of basic research costs; and • 15% of the excess of qualified research expenses over the computed base-period spending.
Colorado	4.63	3	3% credit on the excess of qualified expenses over the average of expenditures for the two prior taxable years
Connecticut	7.5 + 20% surtax — 9	20/1-6	<ul style="list-style-type: none"> • 20% of R&D expenses that exceed the amount spent in the preceding tax year; and • 1% of annual R&D expenses paid or incurred where such expenses equal \$50 million or less to 6% where expenses exceed \$200 million.
Delaware	8.7%	10 or 50	Credit of either 10% on the excess of the firm's qualified research costs in the state over the average of qualified R&D over the immediately preceding four taxable years, or 50% of Delaware's apportioned share of the taxpayer's federal R&D tax credit computed under the alternative incremental credit method of IRC section 41(c)(4)
Florida	5.5	N/A	Florida does not offer R&D tax credits.
Georgia	6.0	10	10% credit of qualified research expenses in excess of a computed three-year base amount.
Hawaii	4.4 - 6.4	20	Statutory rate of 20% of incremental spending. Refundable credit that can be used against corporate or personal income taxes
Idaho	7.6	5	<ul style="list-style-type: none"> • 5% of the excess of qualified research expenses for research conducted in Idaho over the three-year base amount; and • 5% of the basic research payments under section 41 of the IRC for basic research conducted in Idaho
Illinois	7.3	6.5	Nonrefundable credit equal to 6.5% on the excess of qualified research costs over the average amount of qualifying expenditures for the three prior taxable years
Indiana	8.5	10	Nonrefundable 10% credit on qualified research expenses in excess of three-year base period average. (Beginning in 2008, the credit rate increases to 15% on the first \$1 million in incremental expenses plus 10% of incremental expenses in excess of \$1 million)

State Corporate Income Tax Rates and R & D Tax Credits

State	Corporate Income Tax Rate(s)	R&D Credit Statutory Rate	R&D Credit Description
Iowa	6.0 - 12	6.5	6.5% of refundable credit on excess of qualified research expenses over a computed base amount of expenditures using the state's apportioned share of research expenses.
Kansas	4.0 - 7.35	6.5	6.5% of the amount by which the amount of R&D expenditures expended exceeds the average of expenditures in the preceding two taxable years.
Kentucky	4.0 - 7.0	5	Nonrefundable credit equal to 5% of cost of constructing, remodeling, equipping, or expanding facilities in Kentucky for qualified research, as defined in IRC section 41. Credit is taken in the year of completion.
Louisiana	4.0 - 8.0	8 or 20	Either 8% of Louisiana's apportioned share of incremental research (per IRC section 41) if taxpayer employs 500 or more Louisiana residents, or 20% of Louisiana's apportioned share if the taxpayer employs fewer than 500 Louisiana residents.
Maine	3.5 - 8.93	5/7.5	<ul style="list-style-type: none"> • 5% of the excess of qualified research expenses for the taxable year over the base amount (for three preceding tax years); and • 7.5% of the basic research payments under section 41 of the IRC
Maryland	7.0	3/10	<ul style="list-style-type: none"> • Basic credit: 3% of qualified expenses; and • Incremental credit is 10% of research expenses in excess of average qualified R&D expenses over the Maryland base amount of R&D expenses.
Massachusetts	9.5	10/15	Nonrefundable credit equal to sum of (i) 10% of any excess qualified research expenses for the taxable year over the computed three-year base amount and (ii) 15% of the basic research payments under IRC section 41.
Michigan	4.95 ^a	6.5	Pharmaceutical companies allowed credit equal to 6.5% of incremental research expenses incurred in the state. The base-year period is the immediately preceding three tax years.
Minnesota	9.8	5/2.5	Nonrefundable credit against the state's franchise tax equal to 5% of the first \$2 million of the excess of qualified research expenses for the year over a computed base amount of research expenses; credit is 2.5% on all such expenses in excess of \$2 million.
Mississippi	3.0 - 5.0	N/A	Nonrefundable credit for businesses that create jobs requiring R&D skills from professionals such as chemists and engineers. The credit is equal to \$1,000 for each net new full-time employee for the first 5 years and is limited in aggregate to 50% of the taxpayer's state corporate income tax liability in a taxable year.

State Corporate Income Tax Rates and R & D Tax Credits

State	Corporate Income Tax Rate(s)	R&D Credit Statutory Rate	R&D Credit Description
Montana	6.75	5	Nonrefundable credit of 5% on excess of qualified research expenses during the year, over a computed base amount of research expenses and on basic research payments.
Nebraska	5.58 - 7.81	3	3% of R&E expenses in excess of two-preceding-year base amount.
Nevada	N/A	N/A	Nevada does not impose a corporate income tax.
New Hampshire	8.5 - 9.25	N/A	There are current proposals for R&D incentives. ^b
New Jersey	6.5 - 9.36	10/10	<ul style="list-style-type: none"> • 10% of the excess of the qualified research expenses over the base amount; and • 10% of the current year basic research payments.
New Mexico	4.8 - 7.6	N/A	Through June 30, 2008, nonrefundable tax credit to organizations meeting the qualified R&D small-business designation. Credit is the annual sum of all state gross receipts taxes, compensation taxes, and personal income tax withholding due to the state or payable by the taxpayer. A qualified R&D small business is a business entity that employed no more than 25 employees on a full-time-equivalent basis and had total revenues of no more than \$5 million in any prior fiscal year. The credit is available for three consecutive years.
New York	7.5	4/7	<ul style="list-style-type: none"> • 4% on R&D expenses; and • 7% of cost of property used in conducting R&D.
North Carolina	6.9	3/15	<ul style="list-style-type: none"> • 3% nonrefundable credit on qualified research expenses incurred in the state by small businesses (those whose annual receipts do not exceed \$1 million); and • 15% nonrefundable credit on North Carolina university research expenses.
North Dakota	2.6 - 7.0	8 or 4	The credit is equal to a percentage of the excess of qualified research expenses in North Dakota over the base-period research expenses in North Dakota (qualified research expenses and base period research expenses have the same meaning as defined in IRC section 41. The percentage applied to the excess expenses is 8% of the first \$1.5 million of excess expenses, and 4% of excess expenses above \$1.5 million.
Ohio	4.08 - 6.80 ^c	7	Nonrefundable credit of 7% of qualified research expenses over the average of qualified expenses for the three prior taxable years. Credit is applicable to the Ohio commercial activities tax (CAT).
Oklahoma	6.0	N/A	Credit equal to \$500 for each new employee engaged in computer services, data processing, or R&D in the state.
Oregon	6.6	5	5% of qualified research expenses as defined in IRC section 41; research must be conducted in the state.

State Corporate Income Tax Rates and R & D Tax Credits

State	Corporate Income Tax Rate(s)	R&D Credit Statutory Rate	R&D Credit Description
Pennsylvania	9.99	10 or 20	Nonrefundable credit of 10% on the excess of the current year's qualified R&D costs over the prior year's research expenses. Beginning, 2006, the credit rate increases to 20% for small businesses.
Rhode Island	9	22.5 or 16.9	Nonrefundable credit equal to 22.5% of the first \$25,000 in incremental research expenses and 16.9% above \$25,000.
South Carolina	5.0	5	5% on qualified research expenses incurred in the state (consistent with IRC section 41 but capped at 50% of taxpayer's state tax liability net of all other applied credits).
South Dakota	N/A	N/A	South Dakota does not impose a corporate income tax.
Tennessee	6.5	N/A	Tennessee does not currently provide incentives for R&D, although there have been discussions regarding this issue in the legislature. ^d
Texas	.045 ^e	5	Nonrefundable credit equal to 5% on the sum of the excess of qualified research expenses incurred in Texas over the computed base amount and basic research payments as determined under IRC section 41(e)(1)(A).
Utah	5.0	6/6	<ul style="list-style-type: none"> • Nonrefundable credit of 6% on incremental research expenses incurred in the state (incremental credit based on IRS section 41); and • nonrefundable credit of 6% on cost of machinery used in research.
Vermont	6.0 - 8.9	N/A	Vermont does not offer R&D tax credits.
Virginia	6.0	N/A	Virginia does not offer R&D tax credits.
Washington	.484 - 1.50 ^f	N/A	The business and occupation (B&O) tax (a gross receipts tax) permits a credit for research expenses in excess of 0.92% of the tax base. The credit is computed by multiplying qualified research expenses by the greater of the taxpayer's average tax rate or statutory B&O rates, ranging from 0.00484 for manufacturing to 0.015 for services.
West Virginia	9.0	3 or 10	Refundable credit for business engaged in strategic research and development projects. Credit is equal to the greater of 3% of annual combined qualified research expenses or 10% of the excess of annual qualified research and investment expenses over the average of those expenditures over the three prior years.

Comparison of Neighboring States

ILLINOIS

MM&E: Exempts machinery and equipment that will be used by the purchaser, or a lessee of the purchaser, primarily (over 50%) in the process of manufacturing or assembling tangible personal property for wholesale or retail sale or lease. (35 ILCS 120/2-5(14) & 2-45). See Graphic Arts M&E in Explanation (pg. 42).

WISCONSIN

A sales and use tax exemption is available for machines and specific processing equipment and repair parts or replacements thereof, exclusively and directly used by a manufacturer in manufacturing tangible personal property. (Sec. 77.54(6)(a) Wisc. Stats.)³⁰

Exemption Components	MM&E and Graphic Arts M&E*	(>) More (<) Less (=) Same	Exemption Components	MM&E
Repair & replacement parts	Yes	=	Repair and replacement parts	Yes
“Use on use” (Mach. & equip. to repair exempt mach/equip.)	Yes	>	“Use on use” (Mach. & equip. to repair exempt mach/equip.)	No
Credit Components	Manufacturer’s Purchase Credit (MPC)**			
Consumable supplies	Yes	<	Consumable Supplies	Yes
Pre-production	Yes	>	Pre-production	No
Post-production	Yes	>	Post-production	No
Research and development	Yes	>	Research and development	No
			Other ³¹	

* Graphic Arts Machinery and Equipment is a separate exemption (35 ILCS 120/2-5(4)). Equipment is not required to be used to produce items for wholesale or retail sale (*i.e.* includes equipment used to produce items for internal use).

** Manufacturer’s Purchase Credit (MPC) (35 ILCS 105/3-85): Earned on purchases of exempt manufacturing or graphic arts machinery and equipment at the rate of 50% of the state 6.25% tax which would have been incurred on the exempt purchases. MPC may then be used to satisfy the state 6.25% tax that is incurred on the purchases of “production related tangible personal property.” See pg. 42 in Explanation.

Comparisons

MM&E to MM&E: Wisconsin is more generous because it allows a 100% consumable supplies exemption.

Illinois’ MM&E plus MPC to Wisconsin MM&E: After adding in Illinois’ MPC credit, Illinois is more generous. In MPC categories of pre-production, post-production, and research and development, Wisconsin does not allow an exemption while Illinois allows the MPC credit. After adding Illinois’ MPC credits, Illinois is more generous overall.

Revised 5/13/09 Comparison of Neighboring States

ILLINOIS

MM&E: Exempts machinery and equipment that will be used by the purchaser, or a lessee of the purchaser, primarily (over 50%) in the process of manufacturing or assembling tangible personal property for wholesale or retail sale or lease. (35 ILCS 120/2-5(14) & 2-45). See Graphic Arts M&E in Explanation (pg. 42).

INDIANA

Transactions involving manufacturing machinery, tools, and equipment are exempt from the state gross retail tax if the person acquiring that property acquires it for direct use in the direct production, manufacture, fabrication, assembly, extraction, mining, processing, refining, or finishing of other tangible personal property. IC 6-2.5-5-3(b)

Exemption Components	MM&E and Graphic Arts M&E*	(>) More (<) Less (=) Same	Exemption Components	MM&E
Repair & replacement parts	Yes	=	Repair and replacement parts	Yes
"Use on use" (Mach. & equip. to repair exempt mach/equip.)	Yes	>	"Use on use" (Mach. & equip. to repair exempt mach/equip.)	No
Credit Components	Manufacturer's Purchase Credit (MPC)**			
Consumable supplies	Yes	<	Consumable Supplies	Yes
Pre-production	Yes	>	Pre-production	No
Post-production	Yes	>	Post-production	No
Research and development	Yes	<	Research and development	Yes
			Other ³¹	

* Graphic Arts Machinery and Equipment is a separate exemption (35 ILCS 120/2-5(4)). Equipment is not required to be used to produce items for wholesale or retail sale (*i.e.* includes equipment used to produce items for internal use).

** Manufacturer's Purchase Credit (MPC) (35 ILCS 105/3-85): Earned on purchases of exempt manufacturing or graphic arts machinery and equipment at the rate of 50% of the state 6.25% tax which would have been incurred on the exempt purchases. MPC may then be used to satisfy the state 6.25% tax that is incurred on the purchases of "production related tangible personal property." See pg. 42 in Explanation.

Comparisons

MM&E to MM&E: Indiana allows 100% exemption for consumable supplies and research and development while Illinois allows an exemption for repair and replacement parts. If the value of the exemption from tax on both consumable supplies and research and development exceeds the value of the exemption from tax on repair and replacement parts, Indiana is more generous in this comparison.

Illinois' MM&E plus MPC to Indiana MM&E: Illinois' MPC allows a credit against the State tax for the items listed. Indiana does not allow an exemption for pre- or post-production. When comparing Illinois' tax benefits with respect to repair and replacement parts and pre- and post-production versus Indiana's MM&E exemption for 100% consumable supplies and research and development, the amount allowed appears more balanced.

Revised 5/13/09 Comparison of Neighboring States

ILLINOIS

MM&E: Exempts machinery and equipment that will be used by the purchaser, or a lessee of the purchaser, primarily (over 50%) in the process of manufacturing or assembling tangible personal property for wholesale or retail sale or lease. (35 ILCS 120/2-5(14) & 2-45). See Graphic Arts M&E in Explanation (pg. 42).

IOWA

Exempts the sale or rental of computers, machinery, and equipment, including replacement parts, and materials used to construct or self-construct computers, machinery, and equipment if such items are (among other things) directly and primarily used in processing by a manufacturer. (Iowa Code: 423.3.47; Iowa Admin. Code 701-18.58)***

Exemption Components	MM&E and Graphic Arts M&E*	(>) More (<) Less (=) Same	Exemption Components	MM&E
Repair & replacement parts	Yes	=	Repair and replacement parts	Yes
“Use on use” (Mach. & equip. to repair exempt mach/equip.)	Yes	>	“Use on use” (Mach. & equip. to repair exempt mach/equip.)	No
Credit Components	Manufacturer’s Purchase Credit (MPC)**			
Consumable supplies	Yes	>	Consumable Supplies	No
Pre-production	Yes	<	Pre-production	Yes ³³
Post-production	Yes	<	Post-production	Yes ³³
Research and development	Yes	<	Research and development	Yes
			Other ³⁴	

* Graphic Arts Machinery and Equipment is a separate exemption (35 ILCS 120/2-5(4)). Equipment is not required to be used to produce items for wholesale or retail sale (i.e. includes equipment used to produce items for internal use).

** Manufacturer’s Purchase Credit (MPC) (35 ILCS 105/3-85): Earned on purchases of exempt manufacturing or graphic arts machinery and equipment at the rate of 50% of the state 6.25% tax which would have been incurred on the exempt purchases. MPC may then be used to satisfy the state 6.25% tax that is incurred on the purchases of “production related tangible personal property.” See pg. 42 in Explanation.

*** Graphic Arts Machinery and Equipment is a separate exemption (Iowa Code:4233.47:). Not limited by retail sale condition.

Comparisons

MM&E to MM&E: Iowa is more generous because, although it generally matches up with Illinois in the items Illinois covers under MM&E, Iowa also appears to allow a complete exemption within its MM&E for items that Illinois only allows a credit through MPC (pre- and post-production and research and development). Further, with the fuel exemption discussed in footnote 32 and the computer exemptions discussed in footnote 34 for insurance, financial, and commercial enterprises, Iowa appears to surpass Illinois.

Illinois MM&E plus MPC to Iowa MM&E: While the addition of the MPC credit for pre- and post-production items and research and development brings Illinois closer to Iowa, on most other counts Iowa either equals or exceeds Illinois’ exemptions.

ILLINOIS

MM&E: Exempts machinery and equipment that will be used by the purchaser, or a lessee of the purchaser, primarily (over 50%) in the process of manufacturing or assembling tangible personal property for wholesale or retail sale or lease. (35 ILCS 120/2-5(14) & 2-45). See Graphic Arts M&E in Explanation (pg. 42).

KENTUCKY

Two exemptions: Exemption for (1) “industrial machinery,” KRS 139.470(11) & 139.486 and (2) machinery for new and expanded industry. KRS 139.480(10)

Exemption Components	MM&E and Graphic Arts M&E*	(>) More (<) Less (=) Same	Exemption Components	MM&E
Repair & replacement parts	Yes	>	Repair and replacement parts	No
“Use on use” (Mach. & equip. to repair exempt mach/equip.)	Yes	>	“Use on use” (Mach. & equip. to repair exempt mach/equip.)	No
Credit Components	Manufacturer’s Purchase Credit (MPC)**			
Consumable supplies	Yes	<	Consumable Supplies	Yes ³⁵
Pre-production	Yes	<	Pre-production	Yes ³⁶
Post-production	Yes	<	Post-production	Yes ³⁶
Research and development	Yes	>	Research and development	No ³⁷
			Other ³⁸	

* Graphic Arts Machinery and Equipment is a separate exemption (35 ILCS 120/2-5(4)). Equipment is not required to be used to produce items for wholesale or retail sale (i.e. includes equipment used to produce items for internal use).

** Manufacturer’s Purchase Credit (MPC) (35 ILCS 105/3-85): Earned on purchases of exempt manufacturing or graphic arts machinery and equipment at the rate of 50% of the state 6.25% tax which would have been incurred on the exempt purchases. MPC may then be used to satisfy the state 6.25% tax that is incurred on the purchases of “production related tangible personal property.” See pg. 42 in Explanation.

Comparisons - Kentucky has 2 MM&E exemptions

MM&E to MM&E: Illinois allows an exemption for repair and replacement parts as well as machinery used to repair exempt machinery, but Kentucky allows a 100% exemption for consumable supplies as well as both pre- and post-production machinery and equipment. On balance, it appears Kentucky is more generous in this comparison, if the value of consumables and pre- and post-production exceeds the 2 areas where Illinois is more generous.

Illinois’ MM&E plus MPC to Kentucky’s MM&E (2 exemptions): When adding in Illinois’ MPC credit, Illinois comes much closer to Kentucky. When making this broader comparison, Illinois still lags in the pre- and post-production area because it only allows an MPC credit, but makes bigger gains by allowing an MPC credit for research and development versus no exemption for this in Kentucky. It seems likely though that Kentucky is more generous when combining its 100% consumables exemption with its more generous pre- and post-production exemption.

Revised 5/13/09 Comparison of Neighboring States

ILLINOIS

MM&E: Exempts machinery and equipment that will be used by the purchaser, or a lessee of the purchaser, primarily (over 50%) in the process of manufacturing or assembling tangible personal property for wholesale or retail sale or lease. (35 ILCS 120/2-5(14) & 2-45). See Graphic Arts M&E in Explanation (pg. 42).

MICHIGAN

Exemption applies to machinery, equipment, tools, dies, patterns, foundations for machinery or equipment, or other processing equipment used in an industrial processing activity and in their repair and maintenance. (Sec. 205.54t, M.C.L.; Michigan Revenue Administrative Bulletin 2000-4.)

Exemption Components	MM&E and Graphic Arts M&E*	(>) (<) (=)	More Less Same	Exemption Components	MM&E
Repair & replacement parts	Yes	=		Repair and replacement parts	Yes
"Use on use" (Mach. & equip. to repair exempt mach/equip.)	Yes	=		"Use on use" (Mach. & equip. to repair exempt mach/equip.)	Yes
Credit Components	Manufacturer's Purchase Credit (MPC)**				
Consumable supplies	Yes	<		Consumable Supplies	Yes
Pre-production	Yes	>		Pre-production	No
Post-production	Yes	>		Post-production	No
Research and development	Yes	<		Research and development	Yes
				Other ³⁹	

* Graphic Arts Machinery and Equipment is a separate exemption (35 ILCS 120/2-5(4)). Equipment is not required to be used to produce items for wholesale or retail sale (*i.e.* includes equipment used to produce items for internal use).

** Manufacturer's Purchase Credit (MPC) (35 ILCS 105/3-85): Earned on purchases of exempt manufacturing or graphic arts machinery and equipment at the rate of 50% of the state 6.25% tax which would have been incurred on the exempt purchases. MPC may then be used to satisfy the state 6.25% tax that is incurred on the purchases of "production related tangible personal property." See pg. 42 in Explanation.

Comparisons

MM&E to MM&E: Michigan is more generous because it allows a 100% consumable supplies exemption.

Illinois' MM&E plus MPC to Michigan MM&E: After adding in Illinois' MPC credit for the items listed, Illinois comes into closer balance with Michigan. On the whole, though, Michigan's MM&E exemption appears more generous than Illinois. With its 100% consumable supplies exemption, its 100% R&D exemption, and the broad reach of items exempt under the statute (see fn. 39), Michigan's manufacturing exemption appears far-reaching.

Revised 5/13/09 Comparison of Neighboring States

ILLINOIS

MM&E: Exempts machinery and equipment that will be used by the purchaser, or a lessee of the purchaser, primarily (over 50%) in the process of manufacturing or assembling tangible personal property for wholesale or retail sale or lease. (35 ILCS 120/2-5(14) & 2-45). See Graphic Arts M&E in Explanation (pg. 42).

OHIO

Exemption applies to materials used primarily in a manufacturing operation to produce tangible personal property for sale (Sec. 5739.02(B)(42)(g), Ohio R.C. ; Rule 5703-9-21(A), Ohio Admin. Code)⁴⁰

Exemption Components	MM&E and Graphic Arts M&E*	(>) (<) (=) More Less Same	Exemption Components	MM&E
Repair & replacement parts	Yes	=	Repair and replacement parts	Yes
“Use on use” (Mach. & equip. to repair exempt mach/equip.)	Yes	>	“Use on use” (Mach. & equip. to repair exempt mach/equip.)	No
Credit Components	Manufacturer’s Purchase Credit (MPC)**			
Consumable supplies	Yes	>	Consumable Supplies	Yes
Pre-production	Yes	>	Pre-production	No ⁴¹
Post-production	Yes	>	Post-production	No ⁴¹
Research and development	Yes	<	Research and development	Yes

* Graphic Arts Machinery and Equipment is a separate exemption (35 ILCS 120/2-5(4)). Equipment is not required to be used to produce items for wholesale or retail sale (*i.e.* includes equipment used to produce items for internal use).

** Manufacturer’s Purchase Credit (MPC) (35 ILCS 105/3-85): Earned on purchases of exempt manufacturing or graphic arts machinery and equipment at the rate of 50% of the state 6.25% tax which would have been incurred on the exempt purchases. MPC may then be used to satisfy the state 6.25% tax that is incurred on the purchases of “production related tangible personal property.” See pg. 42 in Explanation.

Comparisons

MM&E to MM&E: Ohio is more generous by allowing a research and development exemption.

Illinois’ MM&E plus MPC to Ohio MM&E: After adding in Illinois’ MPC credit for consumable supplies, pre- and post-production items, and research and development, Illinois comes into closer balance with Ohio. The determination is whether Illinois’ MPC credit for consumable supplies and pre- and post-production items fully offsets the difference between Ohio’s 100% exemption for research and development versus Illinois’ MPC credit for R&D.

Revised 5/13/09 Comparison of Neighboring States

ILLINOIS

MM&E: Exempts machinery and equipment that will be used by the purchaser, or a lessee of the purchaser, primarily (over 50%) in the process of manufacturing or assembling tangible personal property for wholesale or retail sale or lease. (35 ILCS 120/2-5(14) & 2-45). See Graphic Arts M&E in Explanation (pg. 42).

MISSOURI

Replacement machinery and equipment, and parts used directly for manufacturing, mining, fabricating, or producing a product intended to be sold for final use or consumption. (Sec. 144.030(4) RSMo.). Machinery, equipment, and parts purchased and used to establish a new or to expand an existing manufacturing, mining, or fabricating plant (Sec. 144.030(5) RSMo.) (See also 144.054.2 RSMo.)”

Exemption Components	MM&E and Graphic Arts M&E*	(>) (<) (=) More Less Same	Exemption Components	MM&E
Repair & replacement parts	Yes	=	Repair and replacement parts	Yes
“Use on use” (Mach. & equip. to repair exempt mach/equip.)	Yes	>	“Use on use” (Mach. & equip. to repair exempt mach/equip.)	No
Credit Components	Manufacturer’s Purchase Credit (MPC)**			
Consumable supplies	Yes	>	Consumable Supplies	No
Pre-production	Yes	>	Pre-production	No ⁴²
Post-production	Yes	>	Post-production	No ⁴²
Research and development	Yes	<	Research and development	Yes
			Other ⁴³	

* Graphic Arts Machinery and Equipment is a separate exemption (35 ILCS 120/2-5(4)). Equipment is not required to be used to produce items for wholesale or retail sale (i.e. includes equipment used to produce items for internal use).

** Manufacturer’s Purchase Credit (MPC) (35 ILCS 105/3-85): Earned on purchases of exempt manufacturing or graphic arts machinery and equipment at the rate of 50% of the state 6.25% tax which would have been incurred on the exempt purchases. MPC may then be used to satisfy the state 6.25% tax that is incurred on the purchases of “production related tangible personal property.” See pg. 42 in Explanation.

Comparisons

MM&E to MM&E: Both states appear to be relatively equal, with the exception that Missouri’s graphic arts exemption appears to be narrower and Missouri allows an exemption for research and development within its MM&E exemption.

Illinois’ MM&E plus MPC to Missouri MM&E: When adding in Illinois’ MPC credit for consumable supplies, pre- and post-production items, and research and development, the balance splits. Illinois allows an MPC credit for consumable supplies and pre- and post-production items while Missouri does not (although Mo.’s “integrated plant theory” may incline it to include some things which Illinois considers pre- or post-production). On the other hand, Missouri allows a 100% exemption for R&D versus Illinois’ MPC credit. On balance, the states appear relatively equal in the exemptions allowed.

Added 5/13/09 Explanation of Exemption Components Referenced in Neighboring-State Comparison

The preceding charts attempt to compare Illinois' Manufacturing Machinery and Equipment (MM&E) and associated sales tax exemptions with neighboring states. These comparisons cover major spending categories as defined below. It must be noted that each state's Sales Tax code contains many subtleties and that not all may have identified in the comparative charts.

While it is difficult to make generalizations, we can conclude that in our comparison, in all but one instance, Illinois is at least as generous, if not more generous.

Manufacturing Machinery & Equipment Exemption (MM&E)	Exempts machinery and equipment that will be used by the purchaser, or a lessee of the purchaser, primarily (over 50%) in the process of manufacturing or assembling tangible personal property for wholesale or retail sale or lease.
Graphic Arts Machinery & Equipment Exemption	Includes machinery and equipment used for printing, including lithography, gravure, flexography, screen printing, quick printing, digital printing, and machinery and equipment used in providing trade services such as pre-press and binding and finishing services. Equipment is not required to be used to produce items for wholesale or retail sale.
Manufacturer's Purchase Credit (MPC)	Purchasers of manufacturing or graphic arts machinery and equipment that qualifies for the Manufacturing or Graphic Arts Machinery and Equipment Exemption earn a credit (MPC) in an amount equal to 50% of the state 6.25% tax which would have been incurred under the Use Tax or Service Use Tax. The MPC may then be used to satisfy the state 6.25% Use Tax or Service Use Tax liability that is incurred on the purchase of "production related tangible personal property" that does not qualify for the manufacturing or graphic arts machinery and equipment exemption. (Supplies, consumables, hand tools, pre-production and post-production, research and development).
Repair & Replacement Parts	Includes machinery and equipment used by manufacturers and graphic arts producers in the general maintenance or repair of exempt machinery and equipment, such as tools, dies, jigs, fixtures, patterns and molds, and any parts which require periodic replacement in the course of normal operation.
Consumable Supplies	Includes items used by manufacturers and graphic arts producers, the use of which is necessary if machinery is to accomplish its intended function. Such items include fuels, coolants, solvents, oils, lubricants, cleaners and adhesives.
"Use on Use"	Machinery and equipment used by manufacturers or graphic arts producers for in-house repair or manufacture of exempt machinery and equipment. This machinery and equipment is not used for manufacturing items for sale, but for repairing or manufacturing the machinery and equipment used in manufacturing or graphic arts production.
Pre-production	Includes machinery and equipment used in material handling, receiving, quality control, inventory control before the production cycle (conveyors or other equipment such as loaders that move raw materials around before they begin manufacturing; equipment that tests the materials bought from suppliers before they are used on the manufacturing line).
Post-production	Includes such items as machinery and equipment used in storage, staging, and packing for shipping or transportation after the production cycle (equipment used to store the manufactured goods or move them into storage such as conveyors, hand trucks, or forklifts).
Research and Development	Tangible personal property used or consumed by a manufacturer or graphic arts producer for research and development. This would include new product development and testing (e.g. wind tunnel to test car or airplane aerodynamics; crash test machinery; materials testing and design machinery).

Enterprise Zones

State	Offer Enterprise Zones Tax Incentives?	Types of Tax Incentives							How is Incentive Recognized?	What Areas Constitute Your Enterprise Zones?
		Income Taxes	Franchise Taxes	Sales Taxes	Property Taxes	Unemployment Taxes	Other			
Alabama	Yes	X	X	X	X			Credit	NR	
Alaska	No	NA	NA	NA	NA			NA	NA	
Arizona	Yes	X			X		X, Premium Tax	As a Credit	Contact State Department of Revenue for Locations	
Arkansas	Yes	X		X			Based on controlling Arkansas Code section	Credit	Designated by Arkansas Department of Economic Development	
California	Yes	X	X					Credit and/or deduction	42 geographic zones throughout California; see The California Housing and Community Agency Enterprise Zone Map	
Colorado	Yes	X		X	X		Sales tax exemptions	As a credit, sales tax exemptions	See website	
Connecticut	Yes		X		X			As a credit	Contact the Connecticut Department of Economic Development for current listing.	
Delaware	Yes	X					Gross receipts tax	As a credit	Targeted census tracks; contact Department of Revenue	
District of Columbia	Yes	X			X		X	NR	NR	
Florida	Yes	X		X	X			As a credit	NR	
Georgia	Yes	X						As a credit	NR	
Hawaii	Yes	X			X		General excise tax	Deduction or credit	NR	

Legend

X State will offer a tax incentive for this tax type

NA Not applicable

NR Not reported

Enterprise Zones

State	Offer Enterprise Zones Tax Incentives?	Types of Tax Incentives						How is Incentive Recognized?	What Areas Constitute Your Enterprise Zones?
		Income Taxes	Franchise Taxes	Sales Taxes	Property Taxes	Unemployment Taxes	Other		
Iowa	Yes	X		X	X			As a credit	Cannot comprise more than 1% of the area of a county
Kansas	Yes			X				As an exemption	Designated by cities
Kentucky	No								
Louisiana	Yes	X	X	X				As a credit or rebate	Various; La. Rev. Stat. 51:1781
Maine	Yes	X	X				Insurance Premiums Tax	As a credit	Pine Tree Development Zone Tax Credit (Title 36 §§ 2529 and 5219-W), eight Pine Tree Development Zones are identified throughout Maine. For tax years beginning after 2003, a tax credit is available equal to 100% of the tax liability for each of the first five years the qualified business is required to file an income, franchise or insurance premium tax return with Maine. The credit is 50% of the Maine tax liability for each of the second five years the business is required to file an income, franchise or insurance premium tax return with Maine.

Legend

X State will offer a tax incentive for this tax type

NA Not applicable

NR Not reported

Enterprise Zones

State	Offer Enterprise Zones Tax Incentives?	Types of Tax Incentives							Other	How is Incentive Recognized?	What Areas Constitute Your Enterprise Zones?	
		Income Taxes	Franchise Taxes	Sales Taxes	Property Taxes	Unemployment Taxes						
Maryland	Yes	X			X					As a credit	Areas established by the Secretary of Economic and Community Development	
Massachusetts	Yes	X	X		X					As a credit	NR	
Michigan (Single Business Tax - VAT)	Yes			X	X		X	Use tax, single business tax		As a credit	Benton Harbor	
Minnesota	Yes	X	X	X	X					As a credit	NR	
Mississippi	Yes	Offer several other income tax credits and outright exemptions for income and franchise tax.									As a credit	NR
Missouri	Yes	X			X					As a credit	NR	
Montana	Yes	X								As a credit	NA	
Nebraska	Yes	X		X						As a credit	NR	
Nevada	Nevada does not impose a corporate income tax.											
New Hampshire	Yes							Business Enterprise Tax		As a credit	Designated by the Department of Resources and Economic Development under RSA 162-N	
New Jersey	Yes		X			X				As a credit	Designated by the legislature in certain cities	
New Mexico	Yes	X								As a credit	NR	
New York	Yes	X	X	X	X					As a credit/exemption	Empire Zones have been designated at 84 locations throughout the state	
North Carolina	Yes	X	X					Insurance Gross Premiums Tax		As a credit	Enterprise Tiers as determined by the Commerce Department	
North Dakota	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Legend

X State will offer a tax incentive for this tax type NA Not applicable NR Not reported

Enterprise Zones

State	Offer Enterprise Zones Tax Incentives? Yes. See Note.	Types of Tax Incentives						How is Incentive Recognized? As a credit	What Areas Constitute Your Enterprise Zones? Generally economically depressed areas
		Income Taxes	Franchise Taxes	Sales Taxes	Property Taxes	Unemployment Taxes	Other		
Ohio		X	X		X		X, exemption		
Note. Ohio allows an Enterprise Zone Day Care Credit, as well as an employee Training credit. The Ohio Department of Development must qualify Enterprise zones. For a list of qualifying areas, call the Ohio Department of Development, Office of Industrial Development, Business Development Division (614-466-4551). See also, Schedule A-1, items 10 and 17 for an explanation of the exemptions for the Enterprise Zone areas. You do not have to include the compensation paid to specified new employees that have been qualified by the Ohio Department of Development in the numerator of the payroll factor nor qualifying property in the numerator of the property factor.									
Oklahoma	Yes	X		X				As a credit, enhances (doubles) investment credit	Statutory definition
Oregon	Yes	X			X			As a credit	Scattered throughout state
Pennsylvania	Yes	X	X					As a credit	NR
Rhode Island	Yes	X						As a credit	Specially designated areas, see 42-64.3 R.I.G.L.
South Carolina	Yes						Withholding Tax	NR	Entire state
South Dakota	South Dakota does not impose a corporate income tax.								
Tennessee	Yes	X	X					As a credit	Economically distressed counties
Texas	Yes		X	X				As a credit	See Government Code, Chapter 2303
Utah	Yes	X	X					As a credit	Specific areas of counties and cities that have qualified as disadvantaged and applied for designation; for more information contact Utah Department of Economic Development

Legend

X State will offer a tax incentive for this tax type NA Not applicable NR Not reported

Appendix A

Literature Review

Business Incentives: A Review of the Academic Literature

In their 1999 article, Maurer and Ott suggest government locational development programs often reward businesses for decisions they would have made or that are going to be quickly reversed.⁴⁴ The authors claim that proponents of enterprise zones argue that government subsidies are necessary to counteract regional externalities, such as lack of trained labor, high taxes, poor infrastructure, and regulatory constraints that increase the firm's operating costs.

The authors go on to discuss the fact that, paralleling the growth in zone programs, states are increasingly competing to lure companies to locate within their borders by offering a variety of tax breaks and other subsidies. Interestingly, they find that more often than not, the targeted location is not one that is economically depressed. This leads the authors to suggest that enterprise zones and other locational development programs may needlessly subsidize companies already in the zone who, because of their lack of flexibility are unlikely to leave.

In their 2002 article, Peters and Fisher concluded that, on average, state and local governments gained \$18,000 in tax revenue over a 20-year period for each job that was created in response to EZ incentives.⁴⁵ However, the authors also concluded that state and local governments would lose about \$6,600 for every job that received EZ incentives unnecessarily (*i.e.* the job would have been created even if the EZ incentive did not exist). The authors found that the number of jobs that receive EZ incentives far outweigh the jobs that were created as a result of the EZ incentives. The net effect found by the authors was a total state and local loss of about \$59,000 over a 20 year-period for each job created as a result of EZ incentives.

A 2004 study by Couch and Barrett finds that despite the criteria specified by the enterprise zone legislation, results of their research indicate that need played a limited role in determining the assignment of zone status.⁴⁶ The authors conclude that their results point toward a political motivation to the establishment of an enterprise zone. They find that members of powerful committees steered such status and the concomitant job growth to their constituents at the expense of the truly impoverished.

A 2006 study examines the benefits to individual workers hired under California's enterprise zone program.⁴⁷ The analysis reveals that EZ program participation has a positive impact on both wages and adjusted gross income of EZ participants. The benefits appear to be greater for taxpayers with very low initial income. However, it is unclear whether the income boost from EZ participation is permanent or transitory. The authors also find that participation in the EZ program increases the likelihood that an individual will file a tax return. The authors caution that additional analysis is needed to fully determine the extent to which their results can be generalized. The primary finding of the research is that despite being nominally given to employers, some of the value of the California EZ wage credit does appear to flow through to the workers hired under the program. The affect of participation on income appears to be greater for those who are relatively less well off prior to program entry, consistent with program design. In addition, the wage benefit is relatively short-run.

Appendix B

Georgia's Business Expansion Support Team (BEST) Program

This section discusses a study based on an evaluation of the state of Georgia's principal state-level economic development tax incentive program. This program consists of a set of income tax credits known as Georgia's BEST program. The BEST program has been selected for discussion in this study because it may serve as a valuable guideline for future research.

Shortly after taking office in January, 1999, Georgia's Governor Barnes requested a study of BEST that would serve as the basis for recommending changes to it.

In 1999, Governor Barnes asked the Fiscal Research Program in the Andrew Young School of Policy Studies at Georgia State University to conduct such a study. The results of this study are summarized below.⁴⁸ An extensive review and evaluation of all aspects of BEST was conducted, including the effect of job tax credits on job creation. The authors found that

- Most eligible firms did not participate in BEST
- Job tax credits created jobs
- There are many problems with the structure of BEST

The authors proposed numerous changes that were intended to better target the program's tax credits and to address development objectives beyond just job creation. Some of the major findings include:

- It is not possible to evaluate development efforts unless objectives are clearly stated at the outset. The articulation of objectives must precede program design if economic development efforts are to be successful.
- Possible objectives include the following: create jobs, retain jobs, change industry mix, reduce intrastate economic welfare disparities, reduce inter-group welfare disparities, attract high-technology companies, create industry cluster development, improve job quality, and improve fiscal conditions.
- Researchers saw the Governor as the client for their research. Therefore, the researchers used caution by briefing the Governor prior to revealing information to other interested parties. More importantly, the researchers did not believe their role was to recommend specific changes to BEST. Rather they saw their role as pointing out what was good and bad about BEST and then to present options for change, along with a discussion of the advantages and disadvantages of each of these options.
- They began their study by meeting bi-weekly with a small advisory team composed of representatives from the Governor's staff and his Office of Planning and Budget. This group helped to determine the direction of the research project.
- At the first meeting, the researchers presented a list of the questions to be addressed and the information that would be in the report. This became the basic outline for the study and report.
- At each meeting, the researchers discussed what they had found in the previous 2 weeks.

- Questions were frequently raised, and requests for additional information were made, which led to additions to the project outline.
- The involvement of this high-level team also meant that researchers had access to institutional knowledge and sources of information that were very important for the analysis.

Problems with BEST

- Little effective value to many firms.
- Job tax credit does not encourage quality job creation.
- Job tax credit does not apply to some basic industries and applies to non-basic industries.
- Job tax credit discriminates against small businesses by requiring that a minimum number of new jobs be created.
- The list of eligible industries is different between the job tax credit and the investment tax credit for no obvious reason.
- Credits are administratively too complicated from the firm's perspective.
- There is no required evaluation of BEST. In addition, very little is required in the way of data collection that would allow a careful estimation of the costs and benefits of the program.
- The state collects no data on the incentives provided to companies by local communities. It is hard to measure the effectiveness of state-level incentives without knowing what is going on locally. In addition, such data would allow an evaluation of the effectiveness of local incentives and provide the basis for possible statewide reform.
- To evaluate state economic development policies, at least two questions should be addressed:
 - What outcomes has the program produced?
 - What are the economic and fiscal impacts of a particular company's location or expansion within the state?

Lessons

Lesson #1 —

Government officials may not know precisely what research is wanted or needed. It took two or three meetings to get an agreement on the nature of the study because there were differences of opinion as to what was needed. The two principal alternatives that were debated included in a broad-based evaluation versus the development of a model that would measure the effects on previous profitability from various incentives.

Recommendation:

It is important early on to obtain a written agreement of the purpose of the study and what will be addressed. Frequent contact with the advisory team is helpful in this regard.

Lesson #2 —

This is not the kind of study that can be done in isolation. The Governor's Office recognized the need to allow other voices to be heard but also protected the researchers from too much exposure.

Recommendation:

It is important to recognize the political and public nature of such a policy study.

Lesson #3 —

Economic development practitioners can be helpful, but they can also be misleading.

Recommendation:

Be careful in drawing inferences from the statements of practitioners.

Lesson #4 —

It is important to handle unreasonable requests when they are made. At initial meetings, the Governor's staff made suggestions regarding the nature of the study that were unreasonable given the deadline for completing the study and data available. There is a tendency to say "yes" to please the client, but that is obviously not a good strategy. Instead, the researchers made it clear what they could accomplish in the time frame. For example, requests for full-blown cost and benefit analyses of existing and proposed programs were made. The researchers explained that the costs and benefits of tax incentives can be only crudely estimated and many cannot be estimated at all. In lieu of cost and benefit analyses, the researchers promised to estimate only selected benefits and costs that they felt could be reasonably calculated. The Governor's staff was accommodating.

Recommendation:

One can save a lot of time by being straightforward at the outset on what is and is not feasible.

Lesson #5 —

For recommendations to be useful, researchers had to understand what was politically feasible.

Recommendation:

One can save time and other resources by meeting the governor before exploring specific reform options in detail to learn what types of options are of interest.

Lesson #6 —

From an analytical perspective, there is no alternative to somehow constructing your own counterfactual for the specific programs you wish to evaluate. Programs are too idiosyncratic to rely on evidence from other programs within the state or similar programs in other states. Existing studies are informative but not sufficient.

Recommendation:

Be prepared to conduct original research and not rely completely on the implications from existing studies of programs from other places.

Lesson #7 —

To a large extent, the most sage advice does not require empirical analyses but rather an understanding of the principles of economics. The advisory team initially said it wanted an evaluation of BEST. But it was clear that the members also wanted to know how the program should be changed. Neither a sophisticated econometric estimate of the employment effects of the tax credits nor a broad general discussion of incentives were sufficient to fully address that question. Given the time and data the researchers had, they conducted some very good empirical analyses regarding the benefits and costs of the BEST tax credits. However, the results only went so far in guiding the recommendations eventually made. In the end, it was an understanding of basic economics that underpinned suggested changes to the BEST program.

Recommendation:

Remember that econometrics is important for journal articles but is no substitute for solid thinking informed by economic principles.

1. There are two annual sources of data on corporate incentives produced by state agencies: reports created by the Department of Commerce and Economic Opportunity that are required by the Corporate Accountability Act, and the annual Tax Expenditure Reports published by the Illinois Comptroller.
2. We use 2007 data as it is the last full year of business income tax returns that have been filed and data entered.
3. In 2007, the budget implementation bill (P.A. 95-707) allowed for a one year pilot program to provide credits to the purchase of production-related tangible personal property. This program ran from July 1, 2007 through June 30, 2008 and was capped at \$10.0 million.
4. Distributions made by S-Corps, Partnerships and Trusts to individuals are taxed at the Individual Income Tax rate of 3 percent.
5. The PPRT Investment Credit is not reported on the 1299-D schedule.
6. These eight credits are the TECH-PREP Youth Vocational Credit, the Dependent Care Assistance Program Credit, the Employee Child Care Tax Credit, the Jobs Tax Credit, the Environmental Remediation Credit, the River Edge Redevelopment Zone Remediation Credit, the Ex-Felons Jobs Credit, and the Veterans Jobs Credit.
7. Dyl, Edward and Elliot, William, The Share Price Puzzle, Journal of Business, July 2006, Table 2 on page 2055.
8. The State credit was suspended in 2004 and reinstated in 2005.
9. More detailed information was withheld to prevent disclosure of taxpayer information.
10. House Representative Keane, Illinois House transcripts from June 30, 1989 .
11. See Wilson, D.J. (2007). "Beggar thy Neighbor? The In-State, Out-of-State, and Aggregate Effects of R&D Tax Credits," Federal Reserve Bank of San Francisco Working Paper # 2005 – 08.
12. Gallagher, Ryan – R&D Activity and R&D Credits in Illinois: A Brief Analysis, Illinois Department of Revenue (IDOR) Research Department, April, 2009.
13. See <http://www.ilcorpacct.com/ProgressReport.aspx> for company level detail.
14. Industry as defined by 2-digit SIC code.
15. These credits are reported together on firm's 1299-D forms, so information is not available on the distribution of the credits earned. The Comptroller's Tax Expenditure Report reports the credits together as well. Due to the relatively large number of zones and the longevity of the program, it seems likely that the Enterprise Zones account for a majority of the tax expenditure.
16. Billings, Stephen. Do Enterprise Zones Work?: An Analysis at the Borders. Public Finance Review 2009; 37; 68.
17. Each year, IDOR is required by Illinois statute (15 ILCS 405/16) (from Ch. 15, par. 216) to provide its "best estimate of the cost of each tax expenditure related to each of the revenue sources administered by the agency. We are following this same standard for purposes of this study and report.
18. IDOR cannot publicly disclose the names of the individual companies who are using the various tax incentives.
19. "Manufacturer" includes graphic arts producers, and "Manufacturing" includes graphic arts production.
20. The total includes liability periods up to and including May 2008. This analysis includes all accounts that were in the MPC system as of that date.
21. See 86 Ill. Code 130.325 for specific terms and limitations of the exemption.
22. The U.S. Census' Annual Survey of Manufactures: General Statistics was used as a secondary source.
23. Local Governments as Risk Takers and Risk Reducers: An Examination of Business Subsidies and Subsidy Controls, Sullivan – Economic Development Quarterly, Vol. 16 no. 2, May 2002 115-126; Critical Perspectives on Local Development Policy Evaluation, Reese and Fasenfest, Economic Development Quarterly, Vol. 13, No. 1, February 1999 3-7.
24. Buss Terry, The Effect of State Tax Incentives on Economic Growth and Firm Location Decisions: An Overview of the Literature, Economic Development Quarterly, Vol. 15, No. 1, February 2001 90-105.
25. Local Governments as Risk Takers and Risk Reducers: An Examination of Business Subsidies and Subsidy Controls, Sullivan – Economic Development Quarterly, Vol. 16 no. 2, May 2002 115-126.
26. Goss and Phillips – Do Business Tax Incentives Contribute to a Divergence in Economic Growth? Economic Development Quarterly, Vol. No 3, August 1999 217-228
27. Marlon G Boarnet – Enterprise Zones and Job Creation: Linking Evaluation and Practice, Economic Development Quarterly, Vol. 15, No. 3, August 2001 242-254.
28. Conducting an Analysis of Georgia's Economic Development Tax Incentive Program, Ihanfeldt and Sjoquist – Economic Development Quarterly, Vol. 15 No. 3, August 2001 217-228.
29. P.A. 93-552, effective 8-20-2003.
30. Includes "hand tools" - [In Illinois MPC may be used to satisfy 6.25% state tax on excludes](#) hand tools.

Revised 5/13/09

31. Fuel and electricity consumed in manufacturing tangible personal property in Wisconsin are exempt from sales and use tax. (Sec. 77.54(30)(a)6, Wis. Stats.)
32. Note, however, that Iowa exempts fuel (heat, steam, electricity, gas, water) used in creating heat, power, or steam or for generating electrical current used in the manufacturing process. Illinois does not impose sales tax on these items, but does tax electricity and gas under a separate taxes.
33. Processing encompasses all activities commencing with the receipt or producing of raw materials by the manufacturer and ending at the point products are delivered for shipment or transferred from the manufacturer. (Iowa Admin Code: Rule 701 18.58(422,423)(1)3)
34. Allows exemption for computers used in processing or storage of data or information by an insurance company, financial institution, or commercial enterprise.
35. KRS 139.470(11) Focuses mainly on consumables; 139.486 expands it to all "industrial machinery".
36. Processing encompasses all activities commencing with the receipt of the raw materials through the point at which the finished product is ready for sale and delivery to the purchaser. (KRS 139.486(1)(a))
37. No discussion of R&D in [research](#) materials.
38. Exempts energy and fuel to the extent it exceeds 3% of the cost of production; "processing" includes extraction of natural gas, minerals, ore, coal, clay, or stone.
39. Fuel or energy used or consumed for an industrial processing activity is exempt. (Sec. 205.54t(4)(e) M.C.L.). Michigan also [includes](#) exempts tangible personal property for planning, scheduling, supervision, or control of production or other exempt activities; engineering related to industrial processing; and office equipment used for industrial processing activity.
40. [Graphic Arts M&E](#): Rule 5703-9-21(F) says "[p]ersons whose only activity is printing and whose product produced for sale consists wholly of printed matter are not manufacturers under this rule. The taxability of things used by printers must be determined pursuant to division (E)(8) of section 5739.01 of the Revised Code." However, division (E)(8) of Section 5739.01 does not exist.
41. Materials handling of raw materials or parts from the point of receipt or preproduction storage, or of a completed product to or from storage or packaging, or to the place of shipment, is not a part of a continuous manufacturing operation. (Sec. 5739.011(A), Ohio R.C. ; Rule 5703-9-21(B)(9), Ohio Admin. Code)
42. Missouri is an "integrated plant theory" state. As long as there is a continuous progression from raw materials to finished product and there are no extended interruptions in the manufacturing process, the integrated and synchronized system begins when raw materials enter the production process and ends when the product is finished. (12 CSR 10-111.010). Some items or pre- or post-production may be exempt under this theory, but generally not.
43. Exempts electrical energy if the total costs exceeds 10% of the cost of production.
44. Mauer, David and Ott, Steven - On the Optimal Structure of Government Subsidies for Enterprise Zones and Other Locational Development Programs, Journal of Urban Economics, 45, 421-450 (1999).
45. Peters, Alan and Fisher, Peter - The Effectiveness of State Enterprise Zones, W.E. Upjohn Institute for Employment Research, October 2002.
46. Couch, Jim and Barrett, J. - Alabama's Enterprise Zones: Designated to Aid the Needy, Public Finance Review, Vol. 32, No 1, January 2004, 65-81.
47. Bostic, Raphael and Prohofsky, Allen - Enterprise Zones and Individual Welfare: A Case Study of California, Journal of Regional Science, Vol. 46, No. 2, 2006, 175-203.
48. Conducting an Analysis of Georgia's Economic Development Tax Incentive Program, Ihlanfeldt and Sjoquist – Economic Development Quarterly, Vol. 15 No. 3, August 2001 217-228.

