



State of Oklahoma

Incentive Evaluation Commission

New Products Development Exemption Evaluation

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Key Findings and Recommendations



Overview

The New Products Development Income Tax Exemption was established in 1987. The incentive offers an income tax exemption to both inventors and manufacturers of new products developed in the State of Oklahoma (State). An inventor can exempt royalty payments for up to seven years, as long as the new product is manufactured in the State. The manufacturer producing the product in Oklahoma is able to exclude from state taxable income 65 percent of the cost of depreciable property purchased in order to manufacture the product, up to \$500,000.

Taxpayers claiming the royalty income tax exemption must register with the Oklahoma Center for the Advancement of Science and Technology (OCAST). Following registration with OCAST, the exemption is administered by the Oklahoma Tax Commission (OTC).

Recommendation: Repeal

Key Findings Related to Established Criteria for Evaluation

- **Program foregone tax revenue, in terms of Royalty Income Tax Exemptions, have declined.** From Tax Year 2015 to 2020, individual tax expenditures decreased from \$452,462 to \$181,719.
- **The OTC does not calculate the total amount of income excluded by manufacturers as part of this program.** While firms need to be approved through the OCAST registration process, the corresponding OTC data is only available in the aggregate, which makes it impractical to undertake more detailed analyses.
- **Based on data from 2015 to 2020, the New Products Development Income Tax Exemption may have a negative return on investment.** Estimated tax expenditures were approximately \$1.6 million with an estimated tax revenue increase of approximately \$0.5 million, for a total loss of \$1.1 million. However, it should be noted that data limitations related to the depreciable property exemption means this analysis is likely understating the impacts.
- **According to OCAST data, two firms represent 93 percent of registration applications from July 2017 to July 2022.** Charles Machine Works (91 percent) and ThruTubing Solutions (2 percent) represented the overwhelming majority of the applications received and thus are the most likely to receive the majority of the exemptions. This follows a similar pattern identified in the 2018 incentive evaluation of this program.
- **Of the companies registered with OCAST for the royalty tax exemption, 3 of the 30 companies have also received the Investment/New Jobs Tax Credit.** Charles Machine Works, the company with the highest number of registration applications on file with OCAST, has also received nearly \$1.4 million in Investment/New Jobs Tax Credits over tax years 2014 through 2016.
- **Relative to comparable state programs, Oklahoma's New Products Development Income Tax Exemption is broad-based.** Two of the three comparable programs in other states target incentives for inventors in certain industries or to small businesses. Oklahoma does not restrict its program by industry or company size.

Other Findings

- **Total patents originating in Oklahoma in 2020 are at approximately the same level as in 1993 (681 vs. 689).** The number of patents originating in the State has ranged from 429 to 692, with no consistent pattern from year to year, in spite of the program's goal to increase product development.



Recommended Changes to Improve Future Evaluation

Recommendation 1: Improve data processing in order to collect and report the total cost of corporate tax exemptions. In order to improve future evaluations of this program and any other program associated with corporate tax exemptions, the OTC should improve its data processing to allow for the disaggregation of the total cost of each corporate tax exemption. Without this data, it is not possible to evaluate the full impact of the program or understand its basic cost to the State.

Recommendation 2: Modify program requirements to require OCAST to obtain key data on a yearly basis to be eligible for the tax exemption. Currently, those wishing to take the tax exemption must register with OCAST, but there is no requirement that the inventor or manufacturer provide additional information that would be useful in determining the effectiveness or efficacy of the program. The inventor or manufacturer should be required to provide information on annual revenues, annual payroll, and FTEs, both the total number and the number located in Oklahoma to be eligible for the tax exemption. Receiving this data annually would allow for tracking firms that access the exemption over time and would allow the Evaluators to more completely understand the impacts to job creation and industry development.



Introduction



Incentive Evaluation Commission Overview

The Oklahoma Incentive Evaluation Commission (Commission) was created by HB 2182 of 2015 to produce objective evaluations of the State of Oklahoma's wide array of economic incentives. The Commission is made up of five members appointed by the Governor, President Pro Tempore of the Senate and Speaker of the House of Representatives, along with representatives of the Department of Commerce, Office of Management and Enterprise Services and the Tax Commission.

Under the enabling legislation, each of the State's economic incentives must be evaluated once every four years according to a formal set of general criteria, including (but not limited to) economic output, fiscal impact, return on incentive and effectiveness of administration, as well as criteria specific to each incentive.

Since the Commission's inception, it has contracted with PFM Group Consulting LLC (PFM) to serve as the independent evaluator of each incentive scheduled for review in a given year. PFM issues a final draft evaluation on each incentive with recommendations as to how Oklahoma can most effectively achieve the incentive's goals, including recommendations on whether the incentive should be retained, reconfigured, or repealed. The evaluations also contain, where needed, recommendations for any changes to State policy, rules or statutes that would allow the incentive to be more easily or conclusively evaluated in the future.

The Commission is charged with considering the independent evaluator's facts and findings – as well as all public comments – before voting to retain, repeal or reconfigure each incentive under review. It then submits a final report to the Governor and Legislature. This incentive was last evaluated in 2018.

2018 Evaluation: Key Findings and Recommendations

Evaluation Category	Significant Finding(s)
Overall Findings	This incentive provides a limited benefit to a very limited number of firms at a cost that outweighs its economic impact.
Fiscal and Economic Impact	The program has a negative return on investment, when reviewing available data.
Future Fiscal Impact Protections	The relatively small number of firms utilizing the program and the cap on individual claim amounts helps to manage the total cost of the program.
Administrative Effectiveness	As a by-right incentive, administration is very effective. However, improvements to data gathering should be considered to enhance the evaluation process.
Achievement of Goals	Given the limited reach of the incentive, it does not appear to be significantly increasing the number of new products developed in the State.
Retain, Reconfigure or Repeal	Based on its analysis in 2018, the project team recommended that the program be repealed.
Other Recommendations	



2022 Criteria for Evaluation

The provisions of HB 2182 require that criteria specific to each incentive be used for the evaluation. A key factor in evaluating the effectiveness of incentive programs is to determine whether they are meeting the stated goals as established in state statute or legislation.

To assist in a determination of program effectiveness, the Incentive Evaluation Commission has adopted the following criteria:

1. Use of the program
2. Comparison of Oklahoma incentive to other states
3. Determination of the amount of layering with the Investment/New Jobs Tax Credit
4. Interaction or coordination with other programs or service offerings in the economic development or entrepreneurial support ecosystem State return on investment
5. Case studies or other longitudinal tracking of program recipient growth outcomes
6. State return on investment



Incentive Usage and Administration



Program Administration

Incentive administration is shared by the Oklahoma Center for the Advancement of Science and Technology (OCAST) and the Oklahoma Tax Commission (OTC).

Application Process

To be eligible for the incentive, inventors of a new product must register with OCAST and have a patent or patent pending. While OCAST determines eligibility under the program, it is otherwise administered by the OTC through the tax filing process.

The statute related to the incentive offers two potential exemptions for inventors: royalty income, and the cost of depreciable property. Royalty income earned by an inventor of a product developed and manufactured in Oklahoma may be exempt from income tax for up to seven years, as long as the product is manufactured in the State. Manufacturers of the product may exclude from Oklahoma taxable income 65 percent of the cost of depreciable property purchased in order to manufacture the product, up to \$500,000. Depreciable property is defined as machinery, fixtures, equipment, buildings, or substantial improvements.

Eligibility

Once an inventor completes the registration and certification process with OCAST, the inventor must provide a schedule of all income associated with the product, per the OTC administrative code. It also requires manufacturers to provide a copy of the following items: a contract with the inventor, a schedule of payments to the inventor, and a schedule of receipts for expenses attributable to the manufacturing of the product.

Data Collection

The OTC's income tax forms contribute to data collection challenges, which in turn limits reporting and evaluation of this incentive. The OTC seeks to balance ease of use and understanding of the tax form with the need for sufficient data on incentive recipients. In the current process, claimants of the royalty income tax exemption list the exemption amount as part of Income Tax Form 511, on line A14, "Miscellaneous: Other Subtractions." There are at least five total types of subtractions that are comingled in Section A14, which requires subsequent disaggregation for reporting purposes. Claimants include codes on Form 511, associating the amount exempted with one of the following categories:

- New Products Development Exemption for inventor royalties
- New Products Development Exemption for manufacturers
- Exemption for Small Business Incubator sponsors and tenants
- Payments as a result of military member combat zone death
- Payments to spouse of military member killed in combat zone
- Other: Any allowable deductions not included above

This comingling of exemptions complicates estimates of the value of individual components of line A14. The OTC has noted in previous evaluations that it is not uncommon for taxpayers to report exemptions in this line that should be included elsewhere on Form 511.

The most significant problem for incentive evaluation purposes related to the OTC's data collection and reporting is on corporate tax exemptions. The OTC is unable to provide data estimating the cost of the corporate income tax exemptions associated with this or other incentive programs. The information the OTC needs in order to calculate the cost of these exemptions is collected on Tax Form 512 as part of the calculation of Oklahoma taxable income. However, the OTC does not process the calculation forms where exemptions are listed. The forms listing the calculations are maintained for individual audit purposes, but none of it is

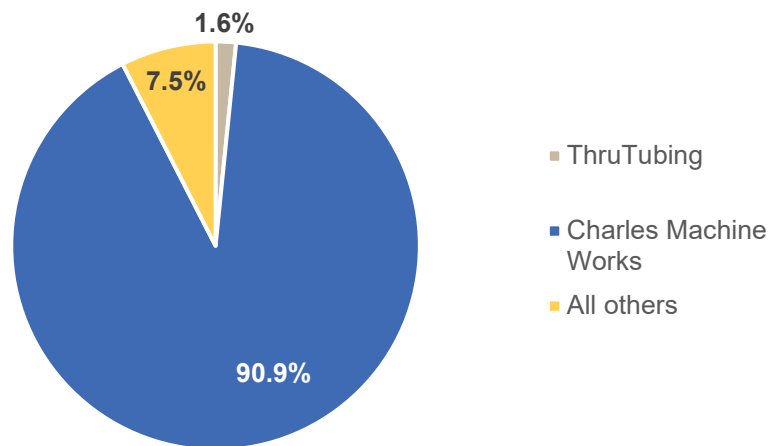


disaggregated for total cost analysis. Without this information, it is not possible to know the full cost of this program.

Use of the Program

As outlined in the Eligibility section, the first step to using this particular program and incentive is to register with OCAST. From 2017 to May 1, 2022, OCAST received 186 registration applications. The submissions came from eight companies and one individual, which follows a similar pattern established in the prior 2018 evaluation. Charles Machine Works, Inc. (169 applications) and ThruTubing Solutions, Inc. (3) were responsible for about 92 percent of all applications. Dating back to July 1998 when OCAST assumed responsibility for the program, 85 percent of applications received have come from these two firms.

Figure 1: Number of Registration Applications Received (July 2017 – May 2022)



Source: Oklahoma Center for the Advancement of Science and Technology

Since 2015, use of the Royalty Income Exemption has generally decreased. Outside of a slight uptick in 2017, the number of returns is down approximately 40 percent (see Table 1). The dollar amount exempted has decreased even more steeply, by approximately 58 percent, according to the most recent OTC data.

Table 1: Royalty Income Exempted (74 O.S. § 5064.7(A)(1))

Tax Year	Number of Returns	Amount
2015	309	\$8,618,329
2016	279	\$2,582,568
2017	289	\$6,583,944
2018	223	\$6,679,374
2019	200	\$3,718,822
2020	186	\$3,635,814

Source: Oklahoma Tax Commission

In contrast, the number of returns utilizing the 65 percent depreciable property exclusion has been generally increasing. The number and dollar amount of returns went down in 2016, but it has seen a very large increase



in dollar value, approximately 24 times more in 2020 than in 2015. The average value of an exemption has dramatically increased as well – from about \$1,800 in 2015 to nearly \$28,000 in 2020, a 15-fold increase. Given the relatively small number of returns, it is possible one new firm with a large enough exemption could shift the results of the program. As an example, in 2018 there were 10 returns claiming the exemption, and then in 2019 11 firms claimed the exemption at more than 4 times the dollar value. Without access to the individual returns, it is difficult to determine the exact cause of the change in utilization.

Table 2: 65 Percent Depreciable Property Exclusion (74 O.S. § 5064.7(A)(2))

Tax Year	Number of Returns	Amount
2015	7	\$12,725
2016	6	\$10,259
2017	9	\$18,040
2018	10	\$39,943
2019	11	\$171,204
2020	11	\$307,361

Source: Oklahoma Tax Commission

Program Layering

The program’s administrative rules allow manufacturers claiming the exemption to also claim Investment/New Jobs Tax Credits. As a manufacturer excludes 65 percent of the cost of depreciable property, it is also able to claim a tax credit of one percent of the cost of the property each year for five years as an Investment/New Jobs Tax Credit.

The following example illustrates the benefit a company could receive through the use of both the New Products Development exemption and the Investment/New Jobs Tax Credit. A manufacturer who purchases property costing \$769,231 would be able to exclude the maximum amount, \$500,000, from its taxable income through the New Products Development Exemption. Given a corporate income tax rate of 6 percent, this would result in a \$30,000 tax benefit, equal to 3.9 percent of the total investment in depreciable property. In addition to this benefit, the company would be able to claim Investment/New Jobs Tax Credits equal to a total of 5 percent of the original investment, over 5 years. By combining these benefits, a manufacturer receives a total tax benefit equal to 8.9 percent of its original investment. The calculations for this example are shown in Table 3.

Table 3: Example of Potential Layering

Investment in Depreciable Property	\$769,231
New Products Exclusion	
Total Exclusion	\$500,000
OK Corporate Tax Rate	6.0%
Tax Benefit	\$30,000
Tax Benefit as Percentage of Investment	3.9%
Investment Tax Credit	
Tax Benefit as Percentage of Investment	5.0%
Tax Benefit	\$38,462
Total Tax Benefit	\$68,462



Tax Benefits as % of Investment	8.9%
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As a comparison, the Investment/New Jobs Tax Credit offers credits worth 10 percent over 5 years (2 percent per year) to companies making investments in enterprise zones or if an investment is worth \$40 million or more. In the illustrative example shown here, a company combining the New Products Development Exemption and the Investment/New Jobs Tax Credit receives a benefit just 1.1 percentage points less than a company investing \$40 million in the State. However, since the benefit is capped at \$500,000, the benefit of the exemption as a percentage of the overall project cost will vary with the amount of investment. For example, in a \$100 million project, the \$0.5 million exemption becomes negligible.

Though the project team is unable to confirm whether specific firms or individuals claimed the New Products Development Exemption, the project team is able to review the list of registered firms via OCAST with the Office of Management and Enterprise Services (OMES) tax credit database to determine potential layering. In the most recent period available, no layering was found. It should be noted that three instances were discovered in the prior evaluation.



Economic and Fiscal Impact



Economic and Fiscal Impact

A description of the IMPLAN economic impact methodology is provided in **Appendix B**.

The two participants in the program – inventors and manufacturers – both receive incentives that translate into increases in economic activity. The inventor’s royalty tax exemption results in greater household income, which translates into local spending at restaurants, shops, and stores. The OTC has detailed data for individual income tax payers taking part in this program. For manufacturers, however, the OTC does not have detailed data. Therefore, it is difficult to accurately convert the royalty an individual inventor receives to increased output in the manufacturing sector. Because data on the manufacturing side is not available, this portion was not included in the economic and tax revenue analysis.

The appropriate IMPLAN Institutional Households Incomes Sectors were used to model the economic impact. The model takes into account “leakages” in the economy as well as savings. Prior to running the economic impact model, annual investor tax savings were converted to total royalties (tax exemption / 5 percent income tax rate). This value represents an estimate of the royalty amount received by investors

Table 4: Estimated Royalty Income Associated with Tax Expenditure

Tax Year	Tax Expenditures	Estimated Royalty Income
2015	\$452,462	\$8,618,329
2016	\$129,128	\$2,582,568
2017	\$329,197	\$6,583,944
2018	\$333,969	\$6,679,374
2019	\$185,941	\$3,718,822
2020	\$181,791	\$3,635,814

Source: Oklahoma Tax Commission

The following tables depict the statewide annual impact of how spending based on the tax exemption ripples through the economy.



Table 5: Impact of New Products Development Income Tax Exemption

		Output	Value Added	Labor Income	Employment	Estimated Oklahoma Tax Revenue
2015	Direct Effect	\$8,618,329	\$1,302,146	\$891,401	13	
	Indirect Effect	\$3,107,033	\$1,588,448	\$962,547	17	
	Induced Effect	\$1,271,813	\$706,151	\$396,235	10	
	Total Effect	\$12,997,175	\$3,596,745	\$2,250,183	40	\$146,634
2016	Direct Effect	\$2,585,568	\$485,019	\$304,573	4	
	Indirect Effect	\$908,855	\$458,584	\$281,127	5	
	Induced Effect	\$439,068	\$240,916	\$134,569	3	
	Total Effect	\$3,933,491	\$1,184,520	\$720,268	13	\$43,632
2017	Direct Effect	\$6,583,944	\$1,279,634	\$803,308	11	
	Indirect Effect	\$2,290,290	\$1,136,564	\$700,464	13	
	Induced Effect	\$1,094,499	\$591,344	\$328,680	8	
	Total Effect	\$9,968,733	\$3,007,543	\$1,832,451	32	\$108,203
2018	Direct Effect	\$6,679,274	\$1,487,240	\$914,503	12	
	Indirect Effect	\$2,132,054	\$1,070,887	\$654,304	11	
	Induced Effect	\$1,111,795	\$598,069	\$331,536	8	
	Total Effect	\$9,923,123	\$3,156,196	\$1,900,343	31	\$115,443
2019	Direct Effect	\$3,501,695	\$756,946	\$486,743	6	
	Indirect Effect	\$1,187,011	\$560,975	\$362,007	6	
	Induced Effect	\$619,292	\$331,208	\$182,312	4	
	Total Effect	\$5,307,998	\$1,649,128	\$1,031,062	16	\$65,089
2020	Direct Effect	\$3,635,814	\$852,792	\$451,570	6	
	Indirect Effect	\$1,230,991	\$602,668	\$394,332	6	
	Induced Effect	\$554,383	\$300,662	\$169,555	4	
	Total Effect	\$5,421,188	\$1,756,121	\$1,015,457	16	\$17,842

Over the past 5 years, the New Products Development Income Tax Exemption for inventors (direct + indirect + induced economic effects) generated approximately \$0.7 million in state tax revenue. Over this same period, the state provided \$1.1 million in tax exemptions, resulting in a net impact of -\$0.5 million. It should be noted that the economic impact is likely understated, as it does not capture possible effects related manufacturers.



Table 6: Annual Tax Generated

FY	Tax Expenditure	Estimated State of OK Tax Revenue	Net Impact
2015	\$452,462	\$146,634	(\$305,828)
2016	\$129,128	\$43,632	(\$85,497)
2017	\$329,197	\$108,203	(\$220,995)
2018	\$333,969	\$115,443	(\$218,526)
2019	\$185,941	\$65,089	(\$120,853)
2020	\$181,791	\$17,842	(\$163,949)
Total	\$1,612,488	\$496,842	(\$1,115,646)



Incentive Benchmarking



Benchmarking

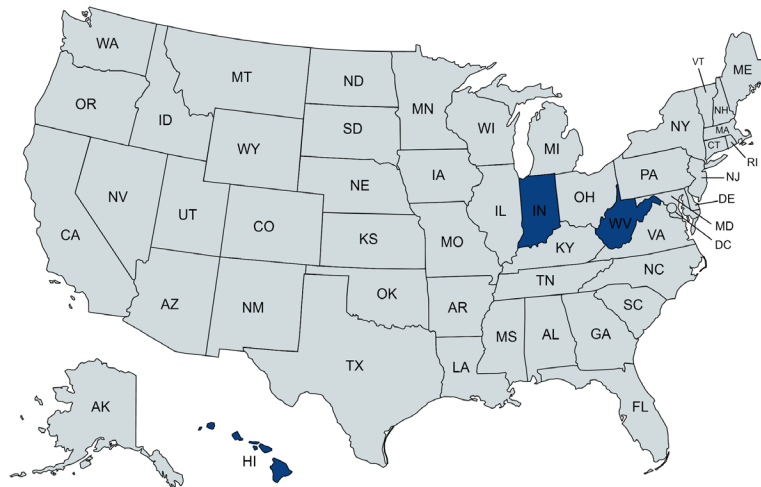
A detailed description of comparable state programs can be found in **Appendix C**.

For evaluation purposes, benchmarking provides information related to how peer states use and evaluate similar incentives. At the outset, it should be understood that no states are ‘perfect peers’ – there will be multiple differences in economic, demographic and political factors that will have to be considered in any analysis; likewise, it is exceedingly rare that any two state incentive programs will be exactly the same.¹ These benchmarking realities must be taken into consideration when making comparisons – and, for the sake of brevity, the report will not continually re-make this point throughout the discussion.

The process of creating a comparison group for incentives typically begins with bordering states. This is generally the starting point, because proximity often leads states to compete for the same regional businesses or business/industry investments. Second, neighboring states often (but not always) have similar economic, demographic or political structures that lend themselves to comparison.

In this case, no bordering states were found to have similar programs. However, three states (Hawaii, Indiana, and West Virginia) were found to have comparable incentive programs. The following discusses some of the key characteristics of these programs.

Figure 1: States Offering Comparable Programs



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Hawaii offers a Royalties Tax Exemption where income from royalties, patents, copyrights, and trade secrets is exempt from State income tax. In order to qualify for the exemption, a business must have at least 50 percent of its activities focused on research in specific fields.² There is no limit to the number of years the exemption can be claimed.

Indiana has a Patent Income Tax Exemption that allows for a percentage of patent income to be exempt from State income tax for up to 10 years. The allowable exemption starts at 50 percent of patent income, then starts to decline gradually after the fifth year, as seen below:

¹ The primary instances of exactly alike state incentive programs occur when states choose to ‘piggyback’ onto federal programs.

² Fields include software, biotechnology, performing arts products, sensor and optic technologies, ocean sciences, astronomy, and non-fossil fuel energy-related technology



Table 3: Indiana Patent Income Tax Exemption Percentages

Year	Exemption Amount
1 through 5	50%
6	40%
7	30%
8	20%
9	10%
10	10%

Indiana's program is restricted to utility and plant patents, and companies with no more than 500 employees.

West Virginia's Commercial Patent Incentives Tax Act offers a tax credit equal to 20 to 30 percent of patent income from patents developed in the State. The standard credit for a patent developed in the state for direct use in manufacturing is 20 percent, but a 30 percent tax credit is available if a taxpayer reinvests at least 80 percent of the credit amount in depreciable property for developing additional patents.

Similar to Oklahoma, West Virginia also provides a benefit for manufacturers producing the product in the State. Tax credits equal to 20 percent of net profit attributable to the patent, or 30 percent if the taxpayer reinvests at least 80 percent of the credit amount in capital improvements to increase productivity.

Benchmarking Program Evaluations

In the prior evaluation, PFM identified one additional incentive evaluation to use as a benchmark – a 2017 evaluation from Indiana. The project team added another 2017 evaluation from West Virginia, but no recent evaluations were identified.

The 2017 evaluation of **Indiana's** Patent Income Tax Exemption found that the incentive was likely too small to influence relocation decisions, but it may be enough to increase research and development activity in the State.³ A comparison of the number of patents issued in Indiana each year to the number of exemption claims found that the number of exemption claims made accounts for less than 2 percent of all patents issued in the State in any year from 2008 through 2014. This suggests that the program is not having a significant impact on the creation of patents in the State. The evaluation notes that this may be due to a lack of tax liability.

The evaluation determined that the exemption is likely not impacting relocation decisions based on the amount of tax benefit offered, especially when compared to the cost of innovation. The average savings for each taxpayer claiming Indiana's credit is about \$1,780 annually. A review of the tax expenditures per inventor registered for Oklahoma's program shows that the average annual savings per company was \$9,564 from Tax Year 2011 through 2015.

A 2017 evaluation of **West Virginia's** Commercial Patent Incentives Tax Act found that utilization was sufficiently low that taxpayer confidentiality standards applied. As a result, the West Virginia Tax Department did not disclose any data on costs, job creation, the amount of credits taken, or any other accountability metrics. Based on this, it is not surprising that the evaluation determined there was no substantial or measurable economic impact to the State.⁴

³ Indiana Legislative Services Agency, Indiana Tax Incentive Evaluation (2017) Accessed electronically at – http://iga.in.gov/legislative/2017/publications/tax_incentive_review/

⁴ West Virginia State Tax Commissioner, Commercial Patent Incentives Tax Credit Review and Accountability Report (February 2017) Accessed electronically at - <https://tax.wv.gov/Documents/Reports/2017/CommercialPatentIncentivesTaxCreditReport.2017.02.pdf>



Appendices



Appendix A: Incentive Statute 74 O.S. § 5064.7

A. The following incentives shall be available to inventors for products developed and manufactured in this state and to instate manufacturers of said products; provided, to qualify for the incentives, the product shall be patented or have patent pending pursuant to federal law and shall be registered with the Oklahoma Center for the Advancement of Science and Technology (OCAST):

1. Royalty earned by an inventor from a product developed and manufactured in this state shall be exempt from state income tax for a period of seven (7) years from January 1 of the first year in which such royalty is received as long as the manufacturer remains in the state; and

2. An instate manufacturer of a product developed in this state by an inventor shall be eligible for a tax credit, as provided for in Section 2357.4 of Title 68 of the Oklahoma Statutes. In addition such manufacturer may exclude from Oklahoma taxable income, or in the case of an individual, the Oklahoma adjusted gross income, sixty-five percent (65%) of the cost of depreciable property purchased and utilized directly in manufacturing the product. The maximum exclusion shall not exceed Five Hundred Thousand Dollars (\$500,000.00). If the exclusion allowed by this paragraph exceeds the Oklahoma taxable income, or in the case of an individual, the Oklahoma adjusted gross income, the amount of the exclusion that is in excess of such income may be carried forward as an exclusion against subsequent Oklahoma taxable income or in the case of an individual, subsequent Oklahoma adjusted gross income, for a period not to exceed four (4) years. For the purposes of this paragraph, "depreciable property" means machinery, fixtures, equipment, buildings, or substantial improvements thereto, placed in service in this state during the taxable year.

B. The Oklahoma Tax Commission, in conjunction with the Oklahoma Center for the Advancement of Science and Technology, shall promulgate rules to implement the provisions of this section



Appendix B: IMPLAN Economic Impact Methodology

The economic impact methodology utilized to determine the multiplier effects is IMPLAN (IMImpact Analysis for PLANning).

IMPLAN's Social Accounting Matrices (SAMs) capture the actual dollar amounts of all business transactions taking place in a regional economy as reported each year by businesses and governmental agencies. SAM accounts are a better measure of economic flow than traditional input-output accounts because they include "non-market" transactions. Examples of these transactions would be taxes and unemployment benefits.

Economic Indicators

Employment

Employment data in IMPLAN follows the same definition as Bureau of Economic Analysis Regional Economic Accounts (BEA REA) and Bureau of Labor Statistics Census of Employment and Wages (BLS CEW) data, which is full-time/part-time annual average. Thus, 1 job lasting 12 months = 2 jobs lasting 6 months each = 3 jobs lasting 4 months each. A job can be either full-time or part-time. Similarly, a job that lasts one quarter of the year would be 0.25 jobs. Note that a person can hold more than one job, so the job count is not necessarily the same as the count of employed persons.

Labor Income

Labor Income represents the total value of all forms of employment income paid throughout a defined economy during a specified period of time. It reflects the combined cost of total payroll paid to employees (e.g. wages and salaries, benefits, payroll taxes) and payments received by self-employed individuals and/or unincorporated business owners (e.g. capital consumption allowance) across the defined economy. Labor Income (LI) encompasses two additional representative metrics called Proprietor Income (PI) and Employee Compensation (EC).

Value Added

Value Added represents the difference between *Output* and the cost of *Intermediate Inputs* throughout a defined economy during a specified period of time. It equals gross Output minus Intermediate Inputs (consumption of goods and services purchased from other industries or imported). Value Added is a measure of the contribution to GDP made by an individual producer, Industry, or Sector.

Output

All analysis in IMPLAN is based on Output, which is the value of production by industry in a calendar year. IMPLAN Output data largely come from the same sources as those used by the BEA in developing their Benchmark Input-Output tables. Since output is the total production value of a Sector, it includes all components of production value or output for a given Sector: $\text{Output} = \text{Employee Compensation} + \text{Proprietor Income} + \text{Intermediate Expenditures} + \text{Tax on Production and Imports} + \text{Other Property Income}$.

Economic Effects

Input-Output (I-O) Analysis and IMPLAN (SAM) is designed to predict the ripple effect of an economic activity by using data about previous spending. Production in a given Sector in an economy supports demand for production in Sectors throughout the economy, both due to supply chain spending and spending by workers.

Direct Effect

A Direct effect is the initial exogenous change in final demand in terms of Industry Output, Employment, and Labor Income Dollars. When consumers purchase goods and services, they create final demand to the Industries producing the goods and services they consume. When you analyze final demand in IMPLAN, we call this a Direct Effect.



Indirect Effect

Indirect effects are the business to business purchases in the supply chain taking place in the region that stem from the initial industry input purchases. As the Industry specified in an Event spends their money in the region with their suppliers, this spending is shown through the Indirect Effect.

Induced Effect

The Induced Effects stem from income being spent throughout the Selected Region. Typically, the income being analyzed are the wages of employees working in the Direct/Indirect Industries.

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Appendix C: Comparable State Programs

	Program Name	Benefit	Benefit Duration	Benefit for Manufacturers	Eligibility Requirements
Oklahoma	New Products Development Income Tax Exemption	Royalty income is exempt from state income tax	7 years	Exclusion of 65% of the cost of depreciable property purchased for manufacturing the product, up to \$500,000	Inventor and manufacturer must both be in-state
Hawaii	Royalties Tax Exemption	Income from royalties, patents, copyrights, and trade secrets is exempt from state income tax	No limit	None	A business with 50% of activities focused on research including software, biotechnology, performing arts products, sensor and optic technologies, ocean sciences, astronomy, and non-fossil fuel energy-related technology
Indiana	Patent Income Tax Exemption	Exemption of 50% of patent income for each of the first 5 years, declining over the next 5 to 10% in the 10th year. Exemption claim may not exceed \$5 million in any tax year	10 years	None	Only applies to utility and plant patents. Individual or corporation claiming the exemption must have no more than 500 employees
West Virginia	Commercial Patent Incentives Tax Act	Tax credit equal to: 20% of income from a patent developed in the state for direct use in a manufacturing process or product 30% of such income if the taxpayer reinvests at least 80% of the credit amount in depreciable property for developing additional patents	No limit	Manufacturers using a qualified patent are eligible for a tax credit equal to: 20% of the net profit attributable to the patent 30% of such net profit, if the taxpayer reinvests at least 80% of the credit amount in capital improvements to increase productivity	Plant patents, design patents, and patents developed for use and directly used in a manufacturing process or product in the state.