



# **State of Oklahoma**

# **Incentive Evaluation Commission**

## **Seed Capital Fund Final Draft Evaluation**

**November 14, 2024**

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# **Key Findings and Recommendations**



## Overview

The Oklahoma Seed Capital Fund (OSCF) provides concept, seed, and start-up equity investments to innovative Oklahoma businesses. It is funded through legislative appropriations to the Oklahoma Center for the Advancement of Science and Technology (OCAST). Fund investments are focused on industry sectors with technologies and proprietary products, processes, and/or know-how that provide high growth opportunities in addressable markets (e.g. advanced materials, aerospace, agri-sciences, biotechnology, communications technologies, energy, software/information technology, medical devices, nanotechnology, robotics, etc.).

OSCF focuses on opportunities that show promise of rapid growth in terms of revenue, increased employment and increased private investment capital. It also includes a pre-seed component that is intended to address the needs of companies requiring smaller seed capital investment that may develop into larger investment opportunities.

## Recommendation: Retain

### *Key Findings*

- **From FY 2018 to FY 2023, appropriations from OCAST to the seed capital fund were similar and averaged \$2.9 million per year.** The fund is sustained from these state appropriations as well as returns on previous investments.
- **From FY 2019 to FY 2023, OSCF made a total of 41 investments.** These investments were distributed to 28 companies and amounted to \$16.6 million.
- **From FY 2019 to FY 2023, total capital investment in Oklahoma by companies receiving OSCF funding has reached \$192 million.** This is additional private investment leveraged independently of OSCF funds.
- **From FY 2019 to FY 2023, firms receiving seed capital funds created or retained 213 jobs in Oklahoma with \$14.5 million in payroll.** These jobs and payroll were directly reported by companies receiving funds in an annual survey conducted by OCAST.
- **The most common OSCF investment recipients are companies operating in the computer software/information technology or biotechnology/pharmaceutical industries,** accounting for 9 and 5 firms respectively. Other common industries that received funding were manufacturing, and healthcare services, systems, and devices.
- **Most firms receiving funding are located in Oklahoma City or Tulsa,** accounting for 16 of 22 firms that are still operating.
- **The economic impact of OSCF in 2023 created 913 jobs, had \$39.7 million in labor income, \$124.0 million in economic activity, and \$2.6 million of state tax revenue.** Accounting for the \$16.6 million of funds advanced, for every \$1.00 of seed capital funds advanced, \$7.47 was generated in economic activity and \$0.16 in state tax revenue.
- **Comparable programs were found in five other states, including the bordering states of Arkansas, Missouri, and Colorado.** Nebraska and Vermont were also found to have similar programs. Some of the key differences were that some other states may have larger investment ranges, allowing for smaller investments, as well as the option for convertible debt as part of the investment terms.



- **The pre-seed component of OSCF is intended to replace the Technology Business Finance Program (TBFP).** The TBFP, another program administered by OCAST, was discontinued as of July 1, 2024 and provided funding to qualified businesses, typically in the range of \$20,000 to \$50,000.

*Recommendations*

- Clearly communicate the new changes to the Seed Capital Fund to past and prospective users and how it is now designed to meet the needs that the Technology Business Finance Program was meeting prior to it being discontinued.



# Introduction



## Incentive Evaluation Commission Overview

In 2015, HB2182 established the Oklahoma Incentive Evaluation Commission (the Commission). It requires the Commission to conduct evaluations of all qualified state incentives over a four-year timeframe. The law also provides that criteria specific to each incentive be used for the evaluation. The Commission has completed two cycles of qualified evaluations, from 2016-2019 and 2020 through 2023. This is now the first year of a new four-year cycle.

In 2023, the Legislature passed and Governor Stitt signed into law SB 745, which made a number of changes to the incentive evaluation process that were recommended by the Commission. Among them was the ability of the Commission to review qualified incentives within the four-year evaluation cycle. In prior cycles, incentives had to be reviewed at least once every four years, which effectively locked in place the order that incentives would be evaluated. As a result, some incentives in this cycle may be reviewed in less or more than four years.

One reason for the change in the evaluation cycle was to allow incentives with similar purposes or that are targeted to specific industries or parts of the state to be evaluated in the same year. This allows for continuity in the discussion and comparisons of effect and effectiveness. This grouping is considered an evaluation best practice.<sup>1</sup> For 2024, there are two broad categories of evaluated incentives:

- Financing/Venture Capital/Early Business related.
- Tourism/Film/Quality of Life related.

This evaluation of the Seed Capital Fund (“the Program”) administered by the Oklahoma Center for Advancement of Science and Technology (“OCAST”) is one of 12 evaluations being conducted by the Commission in 2024 and fits within the financing/venture capital/early business-related incentives. This Program was last evaluated in 2022. Based on this evaluation and their collective judgment, the Commission will make recommendations to the Governor and the State Legislature related to this program.

## Summary of 2022 Evaluation Findings and Recommendations

Overall Recommendation: Retain the program, with modifications.

Key Findings:

- From 2008 to Q3 2022, OSCF closed 83 investments totaling \$31 million in 44 companies.
- From 2008 to Q3 2022, total capital investment in Oklahoma by companies receiving OSCF funding has reached \$272 million.
- Since establishing the first fund Series in 2007, the OSCF has leveraged more than \$700 million of private capital in total.
- From 2008 to 2021, for economic impact that can be measured, the OSCF has an internal ROI that is negative.
- The most common OSCF investment recipients are companies operating in the biopharmaceutical or computer software industries.
- Oklahoma ranks low among nearby states and the nation in terms of venture capital funding disbursed.
- Data collection and reporting improvements are needed.

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<sup>1</sup> “Best Practices for Planning Tax Incentive Evaluations: Lessons Learned from Indiana’s Evaluation Process,” Pew Charitable Trusts, August 2022, p.3. Accessed electronically at [www.pewtrusts.org/-/media/assets/2022/08/best-practices\\_incentiveeval-planning\\_2022-3-24\\_final.pdf](http://www.pewtrusts.org/-/media/assets/2022/08/best-practices_incentiveeval-planning_2022-3-24_final.pdf)



Other recommendations:

- Current focus in software and biotech firms could be shifted over time to align with other statewide programs and incentives.
- Given the maturation of the venture capital industry in Oklahoma, it could be valuable to reexamine OSCF's role and mission in the market.
- Improve data collection and reporting.





## 2024 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. Program use.
2. Amount of capital investment.
3. Amount of private investment leveraged.
4. Oklahoma jobs created by firms receiving incentive
5. Year-over-year revenue growth of invested businesses.
6. Financial performance of the fund.
7. Interaction or coordination with other programs or service offerings in the economic development or entrepreneurial support ecosystem.
8. Case studies or other longitudinal tracking of program recipient growth outcomes.
9. State return on investment.
10. Urban vs. rural investment levels and outcomes.
11. Market growth, gain of market share.
12. Scale-up metrics, such as hiring growth, investment growth, etc.



# Background

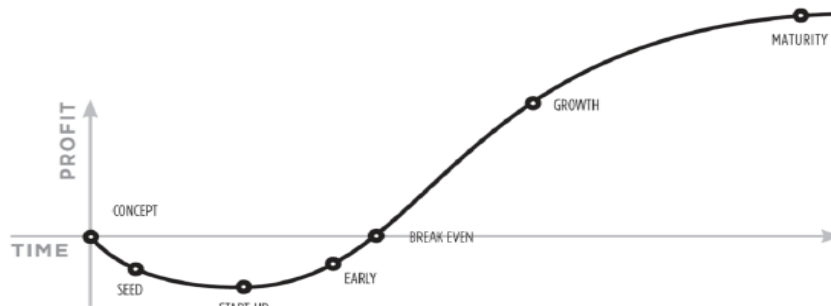


## Background

Private equity is an essential form of investment into companies that are not publicly traded. Venture capital is a form of private equity that focuses on early-stage, start-up companies that need additional capital funding to support the development of products and services and to scale up business operations. Venture capital funding typically occurs within the pre-seed, seed stage, or early-stage timelines of start-up companies. Venture capital provides necessary funding to start-ups that do not have enough cash flow to take on debt. Though there is a high-risk profile associated with investing in early-stage start-ups, when successful, venture capital can provide high value returns.

Oklahoma's Seed Capital Fund (OSCF) focuses on investing in seed-stage companies based in Oklahoma. The fund is supplied with capital through appropriations to the Oklahoma Center for the Advancement of Science and Technology (OCAST) and is managed by i2E, a private not-for-profit corporation that specializes in investing in innovative Oklahoma-based small businesses. Like most venture capital funds, OSCF makes long-term investments in startups and receives returns when a startup is acquired or goes public, often referred to as an "exit." Figure 1 shows the lifecycle of a start-up and highlights the need for early investment prior to sustained levels of revenue generation.

**Figure 1: Startup Lifecycle**



Source: OCAST

Through OSCF, OCAST provides funding to innovative Oklahoma companies and can incentivize additional private investment. The Seed Capital program also includes a pre-seed component intended to address the needs of companies requiring smaller seed capital investment that may develop into larger investment opportunities as the company continues to grow.<sup>2</sup>

<sup>2</sup> This pre-seed component is now intended to essentially replace the needs being met from the now-discontinued Technology Business Finance Program (TBFP), an incentive that was also administered by OCAST and ended effective July 1, 2024. The TBFP was designed to provide funding and financing for and to assist qualified Oklahoma enterprises to commercialize a new product, service, technology, innovation, or process. Awards generally ranged from \$20,000 to \$50,000 and repayments are made through royalty payments. The program was terminated, effective July 1, 2024.



# **Incentive Usage and Administration**



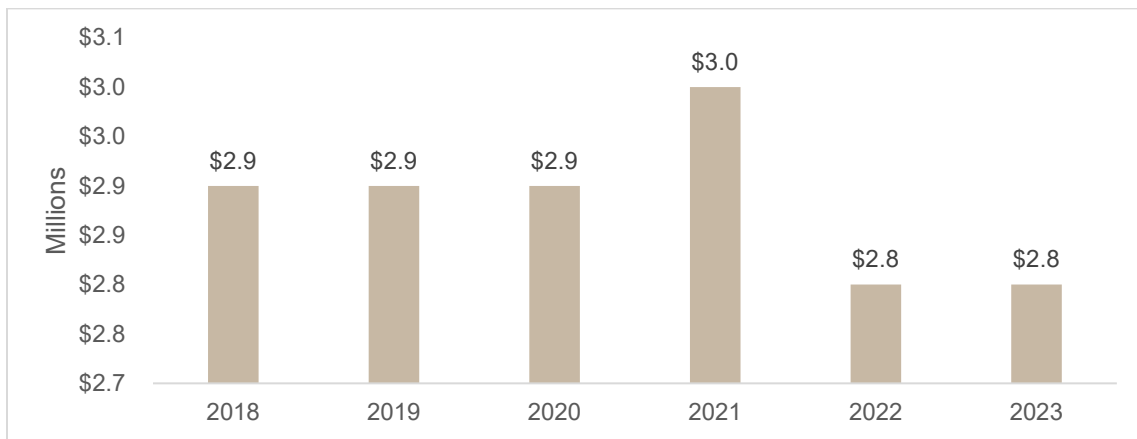
### Incentive Characteristics

The Oklahoma Seed Capital Fund (OSCF) provides concept, seed, and start-up equity investments to Oklahoma businesses in industries with technologies and proprietary products, processes, or knowledge that provide high growth opportunities. OSCF invests in high-growth small businesses based in Oklahoma with a goal of using the state's investment to attract additional private investment. Investments are typically made with at least 100 percent matching from private funds and generally range from \$0.1 million to \$1.5 million but can be as low as \$30,000 or as high as \$2.0 million. To qualify, firms must have at least 50 percent of its employees and/or assets in Oklahoma. The OSCF is funded through OCAST and managed by i2E, a private not-for-profit corporation that specializes in investing in innovative Oklahoma-based small businesses.

### Program Usage & Funding

The OSCF operates using state appropriations provided through OCAST. Figure 2 shows that appropriations have held mostly steady between FY2018 to FY2023 at an average of \$2.9 million per year.

**Figure 2: Seed Capital Fund Appropriations, FY 2018 - 2023**



Source: OCAST

From FY2019 through FY2023, the most common recipients of OSCF commitments were companies operating in the Computer Software/Information Technology and Biotechnology/Pharmaceutical industries, representing nine and five firms, respectively. This aligns with prior evaluations in terms of proportional representation. These two industries combined to receive over \$6.3 million in seed funding.



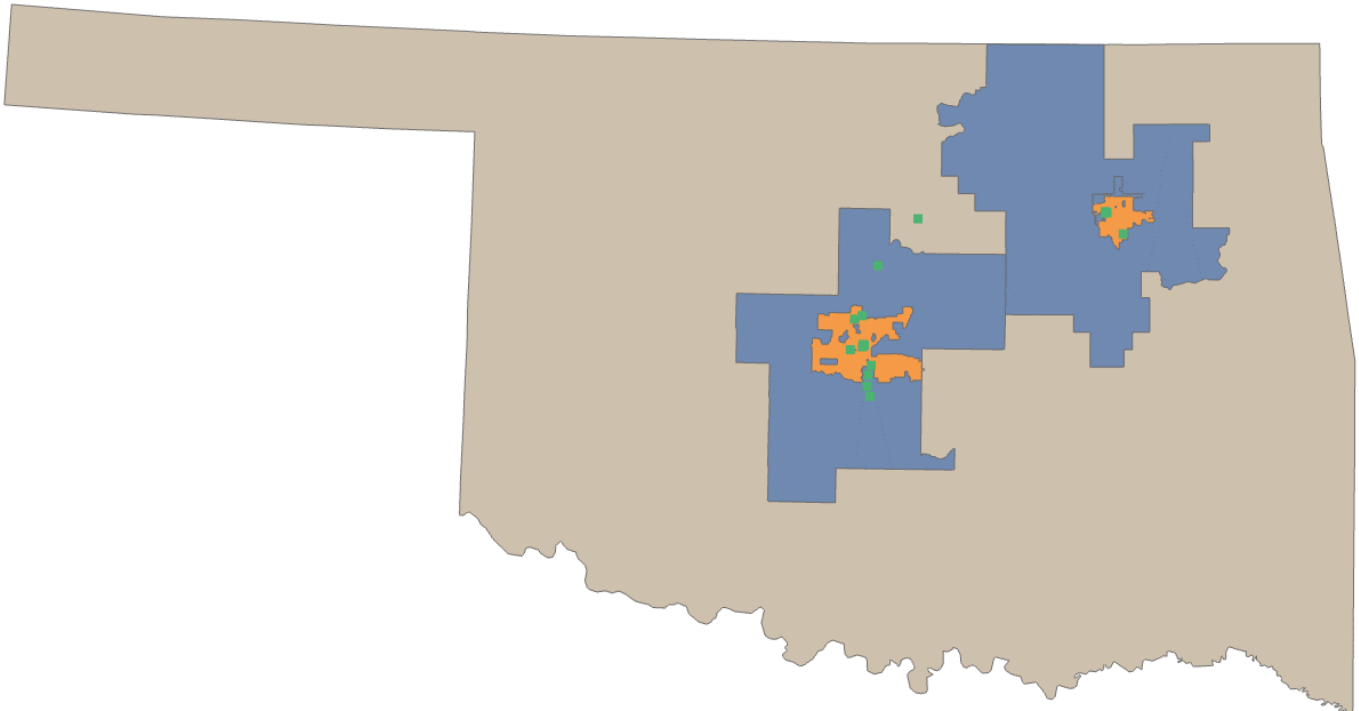
**Table 1: Total Seed Capital Fund Investments by Industry, FY2019 – FY2023**

Industry	Number of Firms	Total Seed Fund Investment
Software/IT	9	\$3,505,000
Biotech/Pharma	5	\$2,814,355
Manufacturing	4	\$3,520,433
Healthcare Svcs, Systems, & Devices	4	\$1,900,000
Energy/Environment	3	\$3,220,940
Consumer Goods	2	\$305,000
Other-Transportation	1	\$1,325,000
<b>Total</b>	<b>28</b>	<b>\$16,590,728</b>

Source: OCAST

Of the 28 firms that received investments in that time, 22 remain in business in Oklahoma, 2 are operating in other states (Colorado and Texas), and 4 have gone out of business. Of the Oklahoma-based businesses, 21 are in urban<sup>3</sup> areas with one located in a rural county. 16 of those Oklahoma-based businesses are located within the city limits of either Oklahoma City or Tulsa.

**Figure 3: Firms Receiving Seed Capital Funds, Urban vs. Rural Split**

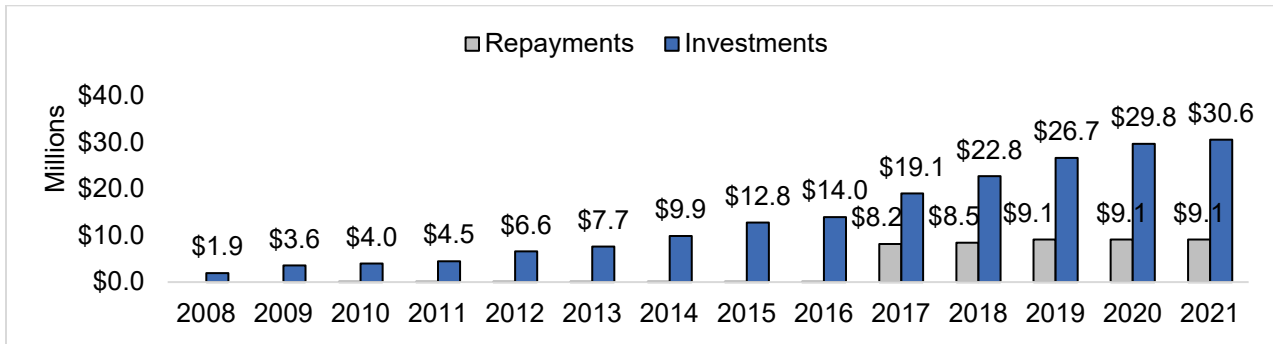


The Oklahoma Seed Capital Revolving Fund may receive loan repayments and investment proceeds in addition to appropriation transfers. All investment proceeds generated by OSCF investments are reinvested in the revolving fund. The Evaluators did not receive updated repayment data beyond 2018.

<sup>3</sup> Urban areas are those located within a Metropolitan Statistical Area as defined by the Federal Office of Management and Budget.



**Figure 4: Cumulative Investments and Repayments, FY 2008 – FY2021**



Source: i2E and OCAST

### Incentive Administration

Applicants are commonly sourced from i2E’s pool of clients participating in its other venture advisory and entrepreneurial development services, and through its relationships with the Department of Commerce and the Oklahoma Manufacturing Alliance. This includes the Technology Business Finance Program among others. If requirements are met during the initial assessment and application phase, a term sheet is prepared determining valuation, structure, the amount of investment and other terms. The terms of each investment vary as each is customized to meet the needs of the prospective company. Once a term sheet is agreed upon, it is sent to OCAST for final approval. Before an investment is made, i2E performs thorough research into the viability of the investment including a review of intellectual property, current financials, background check, market assessment, customer validation and the creation of short-term and long-term financial projections.

According to statute, an investment may be approved by OCAST if its board of directors determines the following, based on the company’s application and i2E’s analysis. The following are the requirements:

- The proceeds of the investment or financial assistance will be used only to cover the seed-capital needs of the enterprise;
- The enterprise has a reasonable chance of success’ and there is a reasonable possibility that the Center will recoup at least its initial investment;
- The Center’s participation is instrumental to the success of the enterprise and will assist in its retention within the state;
- The Center’s investment is leveraged by at least one additional equity or near-equity investor;
- The enterprise has a reasonable potential to enhance employment opportunities within the state;
- The entrepreneur and other founders of the enterprise have already made or are contractually committed to make an appropriate financial and time commitment to the enterprise;
- Binding commitments have been made to the Center by the enterprise for adequate reporting of financial data to the Center, which shall include a requirement for an annual report, or if required by the board, an annual audit of the financial and operational records of the enterprise, and for such control on the part of the Center as the board of directors shall consider prudent over the management of the enterprise, so as to protect the investment or financial commitment of the Center, including in the discretion of the board and without limitation, right of access to financial and other records of the enterprise, and membership or representation on the board of directors of the enterprise.

Throughout the investment, i2E regularly reviews company financial statements to ensure a company is meeting its goals. In addition to reviewing financials, i2E also makes on-site visits when appropriate to monitor product development.



Several measures of performance are tracked by i2E, including number of new employees, amount of new payroll, average wage, portfolio diversity, revenues and paybacks, and private dollars leveraged. These data are collected through an annual, optional survey process for program participants. The survey is sent to all firms each year, though not all firms respond, and data is only available in aggregate to protect privacy of the participants. It prevents an evaluator from conducting a true longitudinal assessment of companies that have received funding and reinforces the aforementioned ability for one or two successful firms to dramatically shift results. While noting these limitations, the survey process is still a fair indicator of participant activity in a given year.

**Table 2: Reported Employment, Payroll and Revenue of Seed Capital Fund Companies**

<b>Calendar Year</b>	<b>Total Reported FTE</b>	<b>Reported FTE in Oklahoma</b>	<b>Annual Payroll Reported (millions)</b>	<b>Reported Annual Revenue (millions)</b>	<b>Annual Average Wage Reported</b>
2008	49	43	\$4.4	\$5.4	\$102,000
2009	47	30	\$3.9	\$6.0	\$97,626
2010	50	33	\$4.1	\$3.0	\$93,466
2011	66	49	\$5.0	\$4.7	\$88,081
2012	104	65	\$10.5	\$6.2	\$98,319
2013	130	71	\$11.0	\$8.6	\$94,428
2014	62	58	\$8.7	\$5.4	\$74,736
2015	174	164	\$5.1	\$12.6	\$68,464
2016	243	218	\$14.4	\$26.5	\$75,373
2017	244	227	\$15.8	\$24.5	\$92,197
2018	206	187	\$13.4	\$24.0	\$87,915
2019	201	168	\$15.00	\$25.00	\$84,213
2020	183	148	\$17.00	\$13.40	\$73,053
2021	132	100	\$14.00	\$9.20	\$97,636
2022	231	179	N/A	25.00	N/A
<b>Total</b>	<b>2,122</b>	<b>1,740</b>	<b>\$142.3</b>	<b>\$199.5</b>	<b>\$87,679</b>

Source: i2E

The Seed Capital Fund incorporates multiple best practices in its program design.<sup>4</sup> The fund is designed to provide investment for specific industries, allowing the State to increase funding for new start-ups in the following businesses: advanced materials, aerospace, agri-sciences, biotechnology, communications technologies, energy, software/information technology, medical devices, nanotechnology, and robotics. The state investment also leverages significant amounts of private investment, leading to more funding for these start-up businesses.

<sup>4</sup> A full list and explanation of incentive best practices can be found in Appendix B.





# **Economic and Fiscal Impact**



## Economic and Fiscal Impact

A detailed explanation of the IMPLAN economic impact methodology can be found in Appendix C.

The total economic impacts for this incentive for the year 2023 are calculated using the reported payroll and employment associated with firms who have received Seed Capital funding and responded to the annual survey. It is assumed that the jobs and payroll reported in the survey would not have been created or retained without the incentive.

The economic impact of the associated payroll and jobs of firms receiving Seed Capital funds and responding to the 2023 survey is significantly larger than the state investment in those firms, as represented by the amount of funding advanced to them. For firms that had received funding from fiscal year 2019 through fiscal year 2023, the economic activity created 913 jobs in the state and generated \$39.7 million in labor income.

The total economic impact from the creation of jobs and payroll of these firms amounts to \$124.0 million. The total amount advanced from the seed capital fund was \$16.6 million. Therefore, for every \$1.00 of seed capital funds advanced, \$7.47 of economic activity was generated in Oklahoma.

The economic impact also accounts for additional Oklahoma state tax revenue. For firms that received funding from FY 2019 – FY 2023, an additional \$2.6 million of tax revenue was generated that was inured to the State. Therefore, for every \$1.00 of seed capital funds advanced, \$0.16 of state tax revenue was generated.

The Oklahoma Seed Capital Fund has created significant economic impact to the state. This impact does not include the additional private funds raised by firms receiving seed capital funding nor does it account for how these funds are leveraged at the key “seed” phase of a startup business’s life cycle. Additionally, the repayment amounts continue to provide funding for future investments, which in turn generate additional payroll and tax revenue to the State.

**Table 1: Economic Impact of Payroll and Jobs of Firms Receiving Seed Capital Funds, 2023**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>	<b>Est. OK Tax Revenue</b>
<b>Direct</b>	611	\$23,333,850	\$28,494,241	\$66,733,560	\$1,032,445
<b>Indirect</b>	157	\$9,033,991	\$14,294,876	\$31,378,928	\$726,154
<b>Induced</b>	146	\$7,357,569	\$13,905,876	\$25,855,395	\$837,049
<b>Total</b>	<b>913</b>	<b>\$39,725,410</b>	<b>\$56,694,992</b>	<b>\$123,967,884</b>	<b>\$2,595,647</b>



# Incentive Benchmarking



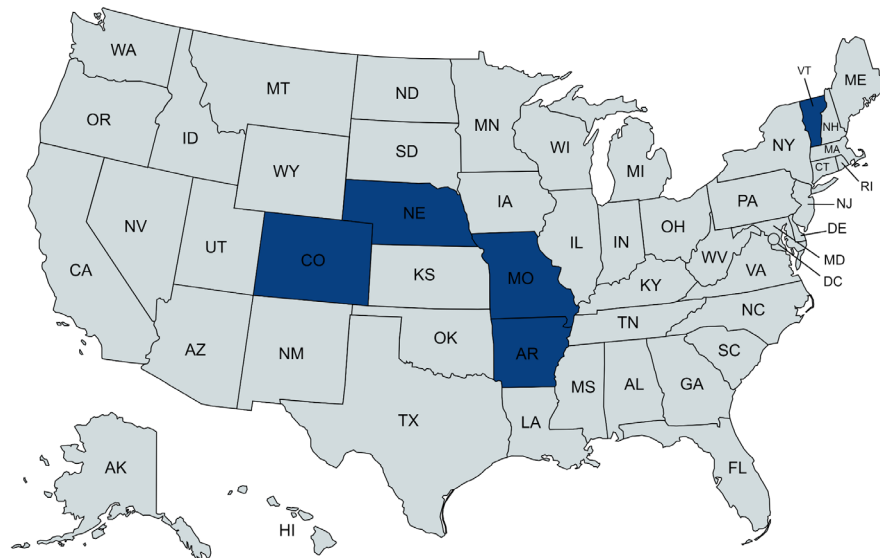
## Benchmarking

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.<sup>5</sup> 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.

For purposes of benchmarking Oklahoma’s Seed Capital Fund, the neighboring states Colorado, Missouri, and Arkansas were found to have directly comparable programs. In expanding the benchmarking to any state, two additional states nationwide were found to have comparable programs, Nebraska and Vermont.

**Figure 5: Program Comparison Group**



<sup>5</sup> The primary instances of exactly alike state incentive programs occur when states choose to ‘piggyback’ onto federal programs.



**Table 2: Benchmark Programs**

State	Purpose	Industry Focus	Investment Range	Investment Terms	Location Requirements
<b>Oklahoma Seed Capital Fund</b>	Provides concept, seed, and start-up equity investments to innovative Oklahoma businesses.	<ul style="list-style-type: none"> <li>▪ Advanced materials</li> <li>▪ Aerospace</li> <li>▪ Agrisciences</li> <li>▪ Biotechnology</li> <li>▪ Communications technology</li> <li>▪ Energy</li> <li>▪ Software/Information technology</li> <li>▪ Medical devices</li> <li>▪ Nanotechnology</li> <li>▪ Robotics</li> </ul>	\$100,000 - \$1,000,000	<ul style="list-style-type: none"> <li>▪ Convertible debt</li> <li>▪ Preferred Equity</li> </ul>	Principal place of business in Oklahoma
<b>Arkansas Seed Capital Investment<sup>6</sup></b>	Fosters the formation and development of innovative, technology-based enterprises that will stimulate the Arkansas economy through employment, investment, and tax revenue.	<ul style="list-style-type: none"> <li>▪ Science and Technology</li> </ul>	No more than \$500,000	<ul style="list-style-type: none"> <li>▪ Royalty participation</li> <li>▪ Debt financing</li> <li>▪ Equity financing</li> <li>▪ Stock appreciation</li> <li>▪ Combination of the above</li> </ul>	Principal place of business in Arkansas

<sup>6</sup> <https://www.arkansasedc.com/science-technology/division/commercialization/seed-capital-investments>



State	Purpose	Industry Focus	Investment Range	Investment Terms	Location Requirements
<b>Colorado Venture Capital Authority</b> <sup>7</sup>	Expands access to venture capital for Colorado's entrepreneurs and startup businesses.	<ul style="list-style-type: none"> <li>▪ Decarbonization and economic inclusion</li> <li>▪ Aerospace</li> <li>▪ Defense</li> <li>▪ Homeland security</li> <li>▪ Technology</li> </ul>	\$50,000 - \$3,250,000	<ul style="list-style-type: none"> <li>▪ Equity financing</li> </ul>	Headquartered, principal place of business, and a commitment to stay in Colorado for at least 5 years after initial investment.
<b>Vermont Seed Capital Fund</b> <sup>8</sup>	Supports entrepreneurs seeking capital, counsel, and community.	<ul style="list-style-type: none"> <li>▪ Agriculture technology</li> <li>▪ Energy</li> </ul>	\$25,000 - \$250,000	<ul style="list-style-type: none"> <li>▪ Equity investment</li> </ul>	Headquartered and principal location in Vermont.
<b>Missouri Technology Corporation Seed Capital Program</b> <sup>9</sup>	Fosters innovation and supports technology-driven entrepreneurial endeavors that contribute to the state's overall economic development growth.	<ul style="list-style-type: none"> <li>▪ Technology</li> </ul>	Up to \$500,000	<ul style="list-style-type: none"> <li>▪ Matching equity</li> <li>▪ Convertible debt</li> </ul>	Based in Missouri

<sup>7</sup> <https://oedit.colorado.gov/venture-capital-authority>

<sup>8</sup> <https://vcet.co/capital/>

<sup>9</sup> <https://www.missouritechnology.com/venture-capital-investments/seed-capital-program/>



State	Purpose	Industry Focus	Investment Range	Investment Terms	Location Requirements
<b>Nebraska Seed Investment Program</b> <sup>10</sup>	Equity investment program to support early-stage Nebraska based businesses.	▪ None	Up to \$500,000	▪ Matching equity	Based in Nebraska

<sup>10</sup> <https://opportunity.nebraska.gov/programs/business/nebraska-seed-investment-program/>



# Appendices





## Appendix A

Oklahoma Statute Title 74. State Government

§74-5060.21. Seed-Capital Revolving Fund – Authorized investments – Investment Committee.

A. There is hereby created in the State Treasury a revolving fund for the Oklahoma Center for the Advancement of Science and Technology to be designated the "Seed-Capital Revolving Fund". The fund shall be a continuing fund, not subject to fiscal year limitations. The fund shall consist of all monies authorized by law for deposit in the fund including but not limited to gifts, grants, private donations and funds by government entities authorized to provide funding for the purposes authorized for use of the fund and with payments on loans made from the fund, rents, dividends paid on shares of stock purchased with monies from the fund, royalty proceeds, or any other form of return on authorized investments made by the Center. All monies accruing to the credit of said fund are hereby appropriated and may be budgeted and expended by the Oklahoma Center for the Advancement of Science and Technology for use as seed-capital for enterprises and for the purposes set forth in this section, and shall not be used for administrative, management, or operating expenses of the Center. Expenditures from said fund shall be made upon warrants issued by the State Treasurer against claims filed as prescribed by law with the Director of the Office of Management and Enterprise Services for approval and payment.

B. The Seed-Capital Revolving Fund shall be managed consistent with the long-term goal that revenues earned from investment of the fund be used to cover administrative costs of the fund. The Center may contract with the Commercialization Center or another entity to manage the Seed-Capital Revolving Fund and to carry out the activities set forth in this section.

C. The Center may use the Seed-Capital Revolving Fund to provide seed-capital to enterprises and to carry out the purposes of the Oklahoma Science and Technology Research and Development Act through authorized investments, including:

1. Loans, loans convertible to equity, and equity;
2. Leaseholds;
3. Management or consultant service agreements;
4. Loans with stock subscription or similar warrants that are beneficially owned by the Center;
5. Loans with stock subscription or similar warrants that are beneficially owned by a party other than the Center;
6. Any other contractual arrangement in which the Center is providing scientific and technological services to any federal, state, county or municipal agency, or to any individual, corporation, enterprise, association or any other entity involving science and technology. The Center, in connection with the provision of any form of financial assistance, may enter into royalty agreements with an enterprise;
7. Participation as a general or limited partner in other seed-capital funds or participation as a limited partner in individual cases as authorized by the board of directors;
8. Royalty or other interests in patents, licenses, trade secrets or other technology; and
9. All other seed-capital investments and qualified securities as defined in the Oklahoma Science and Technology Research and Development Act.



D. The Center may use the Seed-Capital Revolving Fund to purchase qualified securities issued by enterprises engaged in new product or process innovations subject to the conditions set forth in this section.

E. The Center may use the Seed-Capital Revolving Fund to make loans for business incubator facilities in exchange for interests in the enterprises.

F. The Center shall make authorized seed-capital investments in enterprises engaged in new product or process innovations only after:

1. Receipt of an application from the enterprise which contains:
  - a.a business plan including a description of the enterprise and its management, product and market,
  - b.a statement of the amount, timing and projected use of the capital required,
  - c.a statement of the potential economic impact of the enterprise, including the number, location and types of jobs expected to be created, and
  - d.such other information as the Center board of directors shall request; and
2. Approval of the investment by the Center. Such approval may be made after the board of directors finds, based upon the application submitted by the enterprise and such additional investigation as the staff of the Center shall make and incorporate in its minutes, or based on the recommendation of the fund manager, if the Center contracts with the Commercialization Center or another entity to manage the Seed-Capital Revolving Fund, that:
  - a.the proceeds of the investment or financial assistance will be used only to cover the seed-capital needs of the enterprise except as authorized by this section,
  - b.the enterprise has a reasonable chance of success,
  - c.the Center's participation is instrumental to the success of the enterprise and will assist in its retention within the state,
  - d.the Center's investment is leveraged by at least one additional equity or near-equity investor,
  - e.the enterprise has the reasonable potential to enhance employment opportunities within the state,
  - f.the entrepreneur and other founders of the enterprise have already made or are contractually committed to make an appropriate financial and time commitment to the enterprise,
  - g.any securities to be purchased are qualified securities,
  - h.there is a reasonable possibility that the Center will recoup at least its initial investment or financial commitment, and
  - i.binding commitments have been made to the Center by the enterprise for adequate reporting of financial data to the Center, which shall include a requirement for an annual report, or if required by the board, an annual audit of the financial and operational records of the enterprise, and for such control on the part of the Center as the board of directors shall consider prudent over the management of the enterprise, so as to protect the investment or financial commitment of the Center, including in the discretion of the board and without limitation, right of access to financial and other records of the enterprise, and membership or representation on the board of directors of the enterprise.

G. The board of directors shall create an investment committee to assist in evaluating potential investments in qualified securities and provision of other forms of authorized financial assistance. The membership of this investment committee shall serve at the pleasure of the board and shall consist of:

1. No more than two members of the board of directors, neither of whom serves on any advisory committee to the Center; and



2. Persons drawn from sources other than the Center who meet standards similar to those applying to the board of directors and who are recognized by their peers for outstanding knowledge and leadership in their fields, all of whom shall serve at the pleasure of the board.

H. The Center shall not make investments in qualified securities issued by enterprises in excess of the amount necessary to own more than forty-nine percent (49%) of qualified securities in any one enterprise at the time such securities are purchased by the Center, after giving effect to the conversion of all outstanding convertible qualified securities of the enterprise; however, in the event of severe financial difficulty of the enterprise, threatening, in the judgment of the board of directors, the investment of the Center therein, a greater percentage of such securities may be owned by the Center.

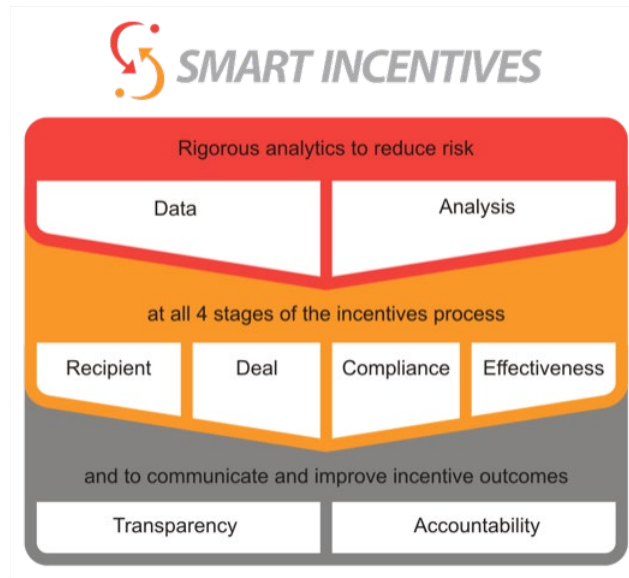
Added by Laws 1987, c. 222, § 36, operative July 1, 1987. Amended by Laws 1988, c. 246, § 12, operative July 1, 1988; Laws 2010, c. 464, § 7, eff. July 1, 2010; Laws 2012, c. 304, § 1037.



## Appendix B: Business Incentives Best Practices

There has been extensive writing around what constitute business incentives best practices. From the project team's review of many sources,<sup>11</sup> it has identified 10 important best practices and sought to incorporate them into the analysis and discussion of this incentive.

As a starting point, business incentives should be viewed as a process, not an event. The award of an incentive and the incentive features are part of that process, and many of the identified best practices reflect that. The process itself should take into consideration each of these factors, which PFM's subcontractor, Smart Incentives, demonstrates in the following illustration:



While the project team believes this is a strong set of best practices, there may well be others that are as (or more applicable) in specific situations. It is also likely that some of the best practices will come into conflict in some situations. For example, application and reporting requirements may reduce the simplicity of business compliance. As a result, these will always be subject to analysis on a case-by-case basis.

The 10 best practices are:

- 1. For maximum impact, incentives should be targeted.** Examples of useful targeting include companies or industries that export their goods or services out-of-state; high economic impact companies or industries – such as those with higher wages and benefits, significant job creation, or significant capital investment.
- 2. Incentives should be discretionary.** In most instances, an application process enables the state government to require company disclosure of information related to eligibility criteria and

<sup>11</sup> Three resources in particular were relied upon on putting together the list of best practices. They are "What Factors Influence the Effectiveness of Business Incentives?" The Pew Charitable Trusts, April 4, 2019, accessed electronically at <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2019/04/what-factors-influence-the-effectiveness-of-business-incentives>; "Improving Economic Development Incentives," Timothy J. Bartik, W.E. Upjohn Institute for Employment Research, 2018, accessed electronically at [https://research.upjohn.org/cgi/viewcontent.cgi?article=1000&context=up\\_policybriefs](https://research.upjohn.org/cgi/viewcontent.cgi?article=1000&context=up_policybriefs); "Best Practices for the Design and Evaluation of State Tax Incentives Programs for Economic Development," Matthew N. Murray and Donald J. Bruce, January 2017, included within another evaluation at [https://media.al.com/news\\_mobile\\_impact/other/AL%20ENTERTAIN%20NEWMKTS%203%209%2017.pdf](https://media.al.com/news_mobile_impact/other/AL%20ENTERTAIN%20NEWMKTS%203%209%2017.pdf)



enables the state to reject applications that do not meet its standards.

3. **Incentives should leverage significant private capital.** Ideally, the incentive should leverage private investment that is at least several multiples of the state investment.
4. **Incentives should provide most of the benefit within 1-3 years and have a limited duration.** Company discount rates are much higher than for the state, and businesses will significantly devalue incentive payments in later years.
5. **Incentives should take into consideration state and/or local as well as industry economic conditions.** Incentives that are provided in high performing areas or for stable and profitable businesses or industries will likely fail the 'but for test' – meaning the activity would likely occur without the state incentive.
6. **'Smart' incentives help businesses overcome practical barriers to growth.** In particular, customized assistance for locally owned, small and medium-sized businesses can have significant impact.
7. **Incentives should be transparent.** The incentive purpose should be clearly articulated, as are eligibility requirements, and regular, detailed reporting should be required from all program recipients.
8. **Incentives should require accountability.** When upfront financial incentives are offered in return for job creation, retention, or capital investment, there should be contract language in place that allows the state to 'claw back' state resources should the company not meet performance requirements.
9. **Incentives should have caps.** To ensure the state's financial health, program dollar caps or limits should be in place. Incentive programs should also have a limited duration, with sunsets in place to require regular review of incentive performance.
10. **Incentives should be simple and understandable.** The state should be able to easily and effectively administer the incentive, and users should be able to readily comply with its requirements.



## Appendix C: IMPLAN Economic Impact Methodology

The economic impact methodology utilized to determine the multiplier effects is IMPLAN (Impact Analysis for PLANning), a proprietary model; PFM has obtained a license for use of the IMPLAN model for these evaluations.

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.

### Multipliers

SAMs can be constructed to show the effects of a given change on the economy of interest. These are called Multiplier Models. Multiplier Models study the impacts of a user-specified change in the chosen economy for 440 different industries. Because the Multiplier Models are built directly from the region-specific SAMs, they will reflect the region's unique structure and trade situation.

Multiplier Models are the framework for building impact analysis questions. Derived mathematically, these models estimate the magnitude and distribution of economic impacts, and measure three types of effects which are displayed in the final report. These are the direct, indirect, and induced changes within the economy.

- **Direct** effects are determined by the Event as defined by the user (i.e., a \$10 million order is a \$10 million direct effect).
- The **indirect** effects are determined by the amount of the direct effect spent within the study region on supplies, services, labor, and taxes.
- Finally, the **induced** effect measures the money that is re-spent in the study area as a result of spending from the indirect effect.

Each of these steps recognizes an important leakage from the economic study region spent on purchases outside of the defined area. Eventually, these leakages will stop the cycle.

### Fiscal Impacts

The IMPLAN tax report captures all tax revenue in the study area, across all levels of government that exist in that study area, for the specific industries and institutions affected by an event or group of events. Tax Impact results are based on the collected and reported taxes within the region for the given data year. IMPLAN taxes shown (and collected) are industry and geographically specific. The IMPLAN tax impact report splits the tax impacts into the various tax categories based on the picture of that region's economy. But, there is no industry-specific profile for taxes paid by tax category, so the distribution across tax categories is an all-industry average. While this is a limitation of the IMPLAN fiscal reporting, the IMPLAN tax report serves as an appropriate measure of jurisdictional tax results in the aggregate. Tax results cannot be added to any summary or detailed results as they are already included as a portion of Output. State taxes do not include taxes or district assessments levied by Federal, county, sub-county, city or township governments.