State of Oklahoma
Incentive Evaluation Commission
Technology Business Financing Program Draft Evaluation

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PFM Group Consulting LLC
BNY Mellon Center
1735 Market Street
43rd Floor
Philadelphia, PA 19103

Contents

Key Findings and Recommendations

Overview

The Technology Business Finance Program (TBFP) was established in 1999. The program is intended to assist qualified pre-seed or concept stage firms commercialize new products and processes and advance to the next stage of investment. It provides capital to qualified companies with repayment and private investment matching requirements.

To administer the program, the Oklahoma Center for the Advancement of Science and Technology (OCAST) has partnered with i2E, a not-for-profit corporation that invests in Oklahoma-based start-up companies. Qualifying start-ups may receive cash advances, which are generally between $20,000 and $50,000. The start-ups enter into contracts with i2E and agree to repay the advances with interest within 5 years.

Recommendation: Retain, with improvements in data collection for future evaluation.

Key Findings Related to Established Criteria for Evaluation

- **There is insufficient data to determine the economic impact of the program.** As the administrator of the program, the not-for-profit corporation i2E conducts annual surveys of program participants to collect the number of jobs, average salary, annual revenue that was made possible because of TBFP funding. However, due to fluctuations in the number of respondents to the annual survey, the best this data can offer is a year-to-year snapshot of a sampling of companies that have participated.

- **About half of the total amount of advances made have been repaid.** Of the $12.9 million in funding advanced, $6.3 million has been repaid. With no new appropriations planned for the TBFP, these repayments are the only source of funding for ongoing operations and new advances. Current projections estimate the program will run out of funds between 2036 and 2058.

- **TBFP portfolio companies have a four-year survival rate of 66.2 percent.** The average four-year survival rate for Oklahoma establishments in general has been 54.5 percent since the inception of the program. This suggests the program may be providing some advantage to participants.

Recommended Program Changes

- **Require program participants to respond to annual surveys.** There is currently no requirement that companies receiving funding through the TBFP respond to i2E's annual survey. Requiring companies to respond to the survey, at least for a certain period of time after receiving funding, would allow for an analysis of employment and payroll growth from year to year.

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 report 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; as well as 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 modify each inventive under review. It then submits a final report to the Governor and Legislature.

Summary of 2018 Evaluation Findings and Recommendations

Evaluation Category	Significant Finding(s)
Overall Findings	The program appears to have some impact on the success of firms in the State, but not enough data exists to understand the economic impacts overall.
Fiscal and Economic Impact	Because of the difficulty in maintaining consistent, accurate, time-series data, there is insufficient data to determine the economic impacts.
Future Fiscal Impact Protections	See finding above.
Administrative Effectiveness	
Achievement of Goals	There are elements of the program that have been successful, but additional data collection would be beneficial to determining the impacts.
Retain, Reconfigure or Repeal	Reconfigure the data collection process to allow for longitudinal measurement.
Other Recommendations	Consider the impacts of declining appropriations on the program's performance.

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. Jobs/payroll associated with the program
2. Use of the program over time
3. Comparison of participant success rates to tech start-ups, generally
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. Return on investment from an equity standpoint

Incentive Usage and Administration

Program Administration

In 1998, the Oklahoma Center for the Advancement of Science and Technology (OCAST) was authorized to create a Technology Business Finance Program to assist Oklahoma start-ups to commercialize products and processes. The statute (74 O.S. § 5060.20a) allows OCAST to require payment of royalties, fees, interest, profits, and other payments generated from the business activity and that these proceeds be retained for use in the program. OCAST is also given the authority to establish program specifications and to contract with a qualified entity to manage and operate it.

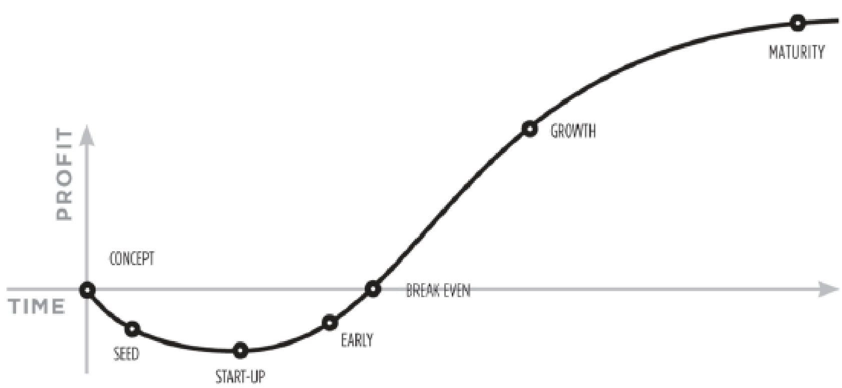
Since 1999, i2E has managed and operated the program, with the following specifications.

Eligibility

Firms in Oklahoma that are commercializing a new technology-based product, process, material, or design are eligible to receive funding under the program. The intent of the program is to support firms that can create high paying jobs, high ratios of sales per employee, and the firm's product should ideally be attractive for subsequent capital investment. At least 50 percent of employees and/or firm assets must be located in the State of Oklahoma. There are several sectors or business types that are not eligible for funding, including capital intensive projects, retail services, oil and gas exploration, oil and gas production, franchisees, real estate development, management, and investment firms.

OCAST targets firms that are in the idea/concept stage of the business cycle, as shown in Figure 1. Firms at this stage usually have few or no employees. In order to move forward as a business, the firm often needs to create a minimally viable product, seek feedback from the market, and prepare to commercialize the concept into a full fledged business. With proper investment at the early stages when profitability is not achievable, the firm can successfully scale its concepty and generate positive economic impacts.

Figure 1: Business Lifecycle



Source: OCAST

In addition to these requirements, all funding recipients apply to and are approved by i2E in a process that includes financial reviews, interviews with i2E staff, and associated documentation. Applicants also participate in a round of meetings with i2E staff and subject matter experts, which may include i2E management, venture advisors, underwriters, and compliance teams. After a thorough evaluation of the firm and its product concepts, the i2E team makes a determination on the viability of an investment and ultimately application approval or rejection.

Funding Terms

According to current program guidelines, awards generally range from $20,000 to $50,000, but may exceed this in certain cases. Award recipients are required to match 5 to 50 percent of this funding from non-state sources. This matching requirement is relatively low, because matching funds are typically provided by the founders of a startup, and they often have limited financial resources.

Once awards are paid, i2E refers to them as “advances”. Once an advance is made, the recipient has five years to repay i2E, according to the following schedule:

- 1.25 times the original advance, if repaid within two years
- 1.75 times the original advance, if repaid within three years
- 2.00 times the original advance, if repaid beyond three years

Repayments are made through royalty payments. They are required to be paid quarterly until the full repayment amount is reached, as long as revenue requirements are met, according to the following terms:

- 5 percent of gross revenue after the first year following the advance, or when gross revenue exceeds $25,000 per quarter
- 7 percent of gross revenue after the second year following the advance, or when gross revenue exceeds $50,000 per quarter
- 10 percent of gross revenue after the third year following the advance, or when gross revenue exceeds $100,000 per quarter

TBFP contracts also list events that would require immediate repayment. These include liquidation, bankruptcy, acquisition, fraud, out-of-state relocation, asset sale, and death of a principal.

OCAST and i2E acknowledge that while advances are intended to be repaid according to the terms and timeframe stipulated by each contract, there is a high risk that advances will not be repaid. Recipients of advances are not required to be repaid unless performance metrics related to gross revenue and performance are met. By design, these terms are considerably more favorable than private sector financing, as it is an effort to support the formation of promising new technology firms in the State and create opportunities for them to pursue private financing in the future. The program seeks to fill a financial gap for firms that are not be able to secure private funding.

Monitoring

Following the payment of an advance, the recipient’s operations and finances are monitored by i2E. Monitoring may include reviews of financial statements or meetings with manufacturers to monitor the performance of product prototypes. On a quarterly basis, i2E holds meetings to review the status of award recipients and discuss the likelihood of repayment.

Reporting

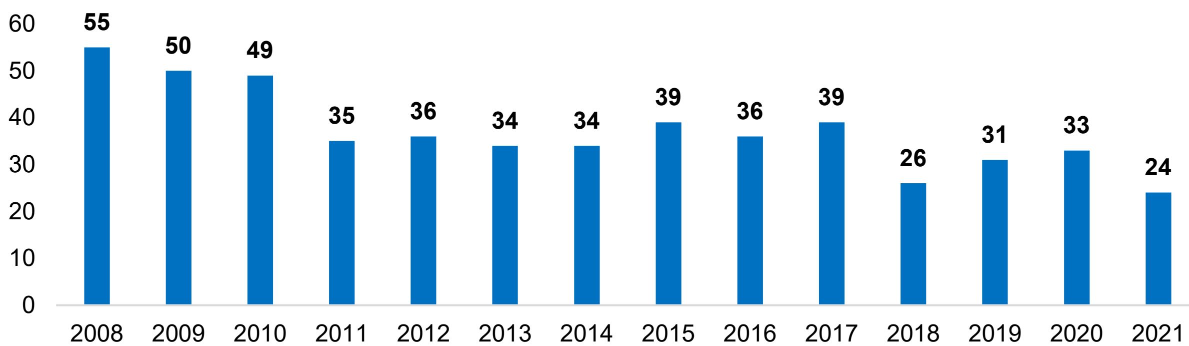
On a monthly basis, i2E is required to report the following information to OCAST:

- Awards made by fiscal year
- Leverage of private funding, quarterly
- Revenues, quarterly
- Paybacks, quarterly
- Economic Impact Analysis of Firms Assisted by TBFP, annually
- Number of jobs, annually
- Average wage of jobs, annually

Economic impact data is collected through an annual survey of program participants conducted by i2E. The survey asks participants to report new and existing jobs, total revenue, total payroll, and average annual wages that have been made possible due to TBFP funding. Additional questions may be added, removed, or changed, though the core of the survey has remained consistent over time.

While surveying participants is a viable tool for collecting this impact data, there are factors in the execution of the survey that make the data collected insufficient for rigorous analysis. First, there is no contractual requirement that participants respond to the survey. As a result, the number of responses fluctuates significantly, as shown in the following figure.

Figure 2: i2E Annual TBFP Survey Respondents, FY 2008 through FY 2021



Source: OCAST

Due to this fluctuation and the fact that companies may drop in and out of survey responses from year to year, the data collected is not a reliable source to understand trends in job creation, payroll, and revenue. Furthermore, historical data collected by the surveys are stored in aggregate form rather than in a database by company and year. An internal i2E policy that protects privacy of their clients is another barrier to analysis, though it is a reasonable measure when considering the importance of proprietary information in early-stage start-up firms. This confluence prevents any analysis of results by company, year of financing, and industry which would be useful for the evaluation of program's economic impact.

Finally, the survey asks for jobs, payroll and revenue made possible by TBFP funding. However, for payroll and revenue, it does not specify whether either is based in Oklahoma. The TBFP program only requires that 50 percent of a company's employees and assets be based in Oklahoma at the time of funding. It is possible, especially as companies grow in the years following financing, that portions of the data received reflect jobs and payroll that is not based in Oklahoma and, as a result, may not have an impact on the State economy.

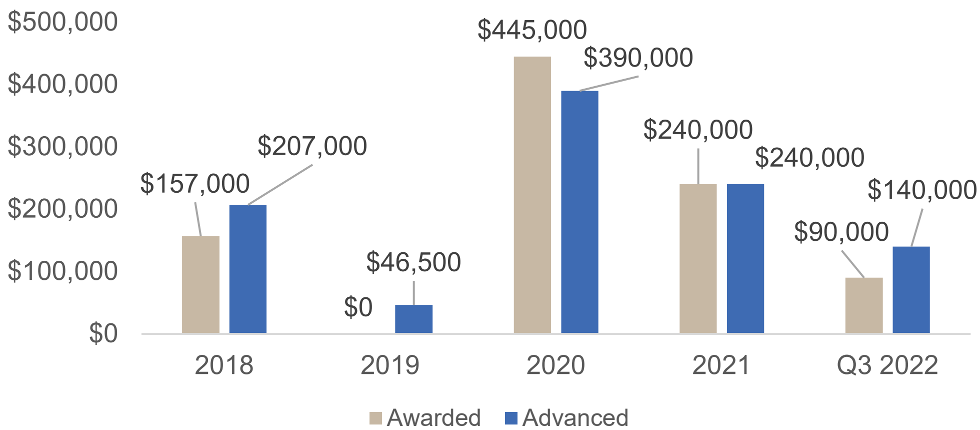
In discussions with i2E staff and one recipient of the TBFP, there were differing perspectives on the role of the program. From the business perspective, one TBFP loan recipient shared the reaction from potential investors that the TBFP was viewed as debt. However, it was also acknowledged from both stakeholder groups that non-dilutive capital in the early stage of growing the business was valuable. I2E staff also emphasized the role this particular program plays in the development of a business within their programming (see Figure 2 below)

Figure 3: Progression of i2E Programs

Use of the Program

Since i2E took over program administration in 1999, there have been 185 TBFP awards, and 159 were funded, which impacted 140 different firms. This total investment of $15.8 million with direct returns to the i2E managed fund of $13.0 million in repayments and $2.7 million in unused funds returned to the program. Data for transactions over the past five years are shown in figure 4.

Figure 4: Summary of Transactions 2018-2022

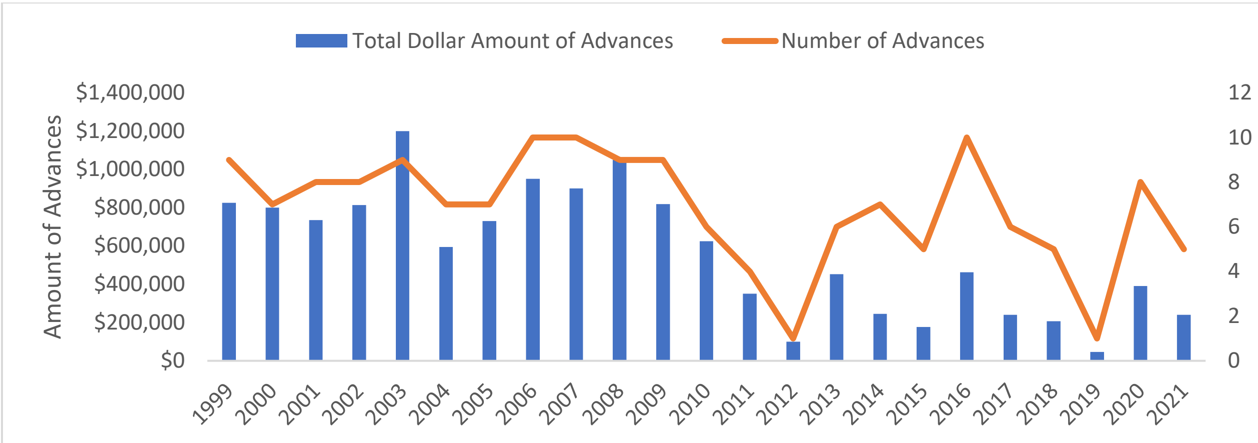


After FY2012, there has been an inconsistent approach to appropriating funding for the TBFP. The TBFP received two recent appropriations, $100,000 in FY2019 and $1,000,000 in FY2020. Given this approach from OCAST and the State, the TBFP now uses return on its investments to fund its operations as well as new advances from the TBFP Fund.

Since the early-stage startup is a relatively risky investment, it is not highly probable that funds will be repaid. As of FY2021, the repayment rate is approximately 50 percent. As of FY 2021, a total of $11.8 million in advances had reached the five-year limit for repayment, and $6.3 million had been repaid.

Program activity declined after appropriations ended in FY2012, but it then recovered in FY2016 before dropping again in subsequent years. Although the number of advances made has been high in some years, the total dollar amount of these advances has been low.

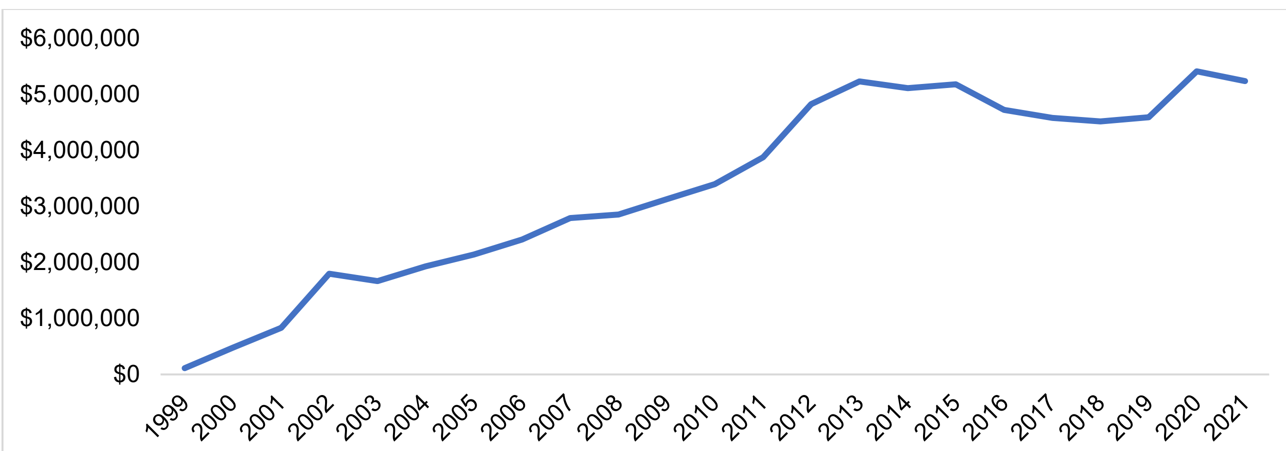
Figure 5: Technology Business Finance Program Usage, FY 1999 through FY 2021



Source: OCAST

Appropriations to the fund have been discontinued for FY2023. Due to the final contribution years of FY2019 and FY2020, the program's fund balance has briefly increased, but that is mostly due to the decrease in advances and advance amounts.

Figure 6: Technology Business Finance Fund Balance, FY99 through FY21



Based on its current rate of return, if the program were to continue operating without appropriations, it would eventually exhaust its funds. Since FY 2013, an average of approximately 6 advances have been made per year with an average amount of about $47,000. Assuming the current trend continues (with 50 percent of advance amounts repaid), TBFP would exhaust its funds by FY2058. If the program returned to its pre-FY 2013 average amount per advance ($100,885), its funds would be exhausted by FY2036.

OCAST has decided to not provide any additional funding to the program and instead will allow it to act as a revolving fund, given the relatively small grants and higher than expected repayment rate[1]. In the i2E business plan for FY2022, a stated goal for this program was to "find additional funding," potentially through the State's Small Business Credit Initiative (SSBCI) 2.0 allocation in order to expand its administration of the grants. In the most recent update to their strategy, focus will shift from TBFP to a new "pre-seed" component to the Seed Capital program that will provide the same style support as TBFP with the added benefit of not requiring start-up firms to carry additional debt.

[1] In conversations with i2E, the original estimate for repayment rate was 10% at the time of drafting the statute. While 50% is higher than expected, it is still not sufficient to sustain the fund indefinitely.

Program Outcomes

Since the program's inception in 1999, i2E has managed the program administration and reporting process. In the most recent Quarterly Report available (Q3 2022), i2E cites several success metrics.

- The program has benefitted 140 different companies that have received 159 awards.
- In total, those awards represent $15.8 million, of which $13.0 million has been funded, and $2.7 million of unused funds have been reclaimed by the program.
- TBFP has received principal and premium repayments totaling $7.0 million.
- Since 1999, TBFP award recipients have raised $779 million in additional private capital.

Data collected by i2E found that the four-year survival rate for participants in the program was 66.2 percent as of September 2022. This would represent an increase over the average survival rate for the State of Oklahoma since the program began (54.5 percent). This suggests firms that participate in the program not only benefit from the funding, but may also benefit from participating in the OCAST and i2E managed programming associated with the funding.

Table 1: i2E Survey Responses, CY2017-2021

Calendar Year	Companies Responding to Survey	Total Reported FTE	Reported FTE in Oklahoma	Annualized Payroll Reported (millions)	Reported Annual Revenue (millions)	Annual Average Wage Reported
2017	39	97	76	$6.2	$10.9	$54,540
2018	26	77	20	$2.9	$7.1	$53,519
2019	31	128	92	$7.0	$15.8	$55,019
2020	33	129	76	$8.8	$11.0	$67,967
2021	24	70	49	$3.6	$5.0	$50,899

According to the most recent survey results, total FTEs reported, total payroll reported, and average wage reported all peaked in 2020. It should be noted that due to the COVID-19 pandemic and its associated economic impacts – including a brief recession in 2020 – the 2021 data may have been suppressed by a variety of factors beyond the scope of the program. These trends should be monitored moving forward, and, to the degree there is capacity for both the State and the participating businesses, a follow-up survey might be valuable.

Economic and Fiscal Impact

Economic and Fiscal Impact

There is insufficient data to perform an economic impact and tax revenue analysis of this program. To estimate the economic impact of the program, i2E should collect and store the following information by company and year: (1) economic activity or sales in Oklahoma, (2) employment and payroll in Oklahoma, (3) additional capital raised. Without this information it is not possible to accurately estimate the program's economic impact or net fiscal impact for the State.

The current data collected by i2E does not provide this level of detail in a time series per company. The survey of funding recipients conducted by i2E does not have consistent response rates and does not collect state-specific revenue and payroll data. The current survey does ask for additional capital raised but does not provide an indication of when the additional capital was raised in relation to when TBFP funding was received. All of this information would contribute to an accurate assessment of economic impact.

Incentive Benchmarking

Benchmarking

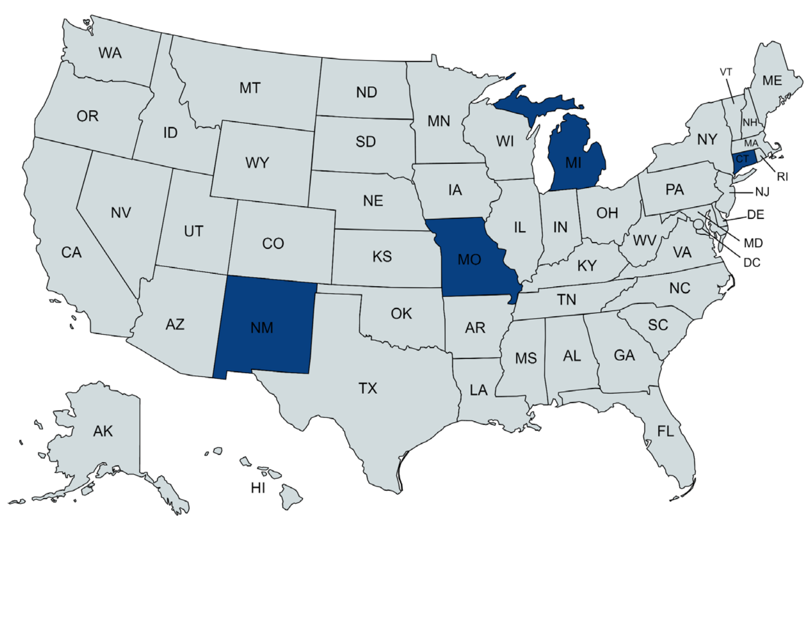
A detailed description of comparable state programs can be found in **Appendix B.**

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.[2] 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.

Four states (Connecticut, Michigan, Missouri, and New Mexico) were found to have comparable incentive programs. The following discusses some of the key characteristics of these programs.

Figure 4: States Offering Comparable Programs



Location Requirements

Comparable programs require beneficiaries of funding to be located in the program's state to varying degrees. Connecticut and Michigan require beneficiaries to commit to a "presence" in the state. For Connecticut's program, this means being based in the State at the time of funding with at least 75 percent of employees in the State. Failure to comply with these requirements results in the repayment of two-times the outstanding balance of the loan. Michigan's presence requirement mandates that at least 51 percent of employees must be located in the State. It also requires the majority of operational and administrative functions be based in Michigan. Missouri requires that companies be based in the State but does not have a standard guideline for

[2] The primary instances of exactly alike state incentive programs occur when states choose to 'piggyback' onto federal programs.

the number of employees or share of operations that must be in the State. New Mexico has the lowest standard, only requiring the "headquarters" of the firm be located in state, though a limited number of industry sectors are eligible.

Oklahoma's program requires 50 percent of employees and assets to be located in the State. This is lower than both the Connecticut and Michigan requirements. It should be noted that TBFP contracts include provisions requiring repayment in the event of out-of-state relocation.

Investment Amounts

The amount of investment offered by other state programs is significantly higher than Oklahoma's. The typical TBFP advance ranges from $20,000 to $50,000, while each comparable state program offers up to at least $25,000. Michigan has the highest investment amount, offering up to $500,000.

While the program's guidelines currently advise $20,000 to $50,000 advances, in previous years (when the program was receiving appropriations and not expected to be self-sustaining), the average advance was greater than $100,000.

Matching Requirements

Oklahoma's TBFP has a relatively flexible matching policy among comparable programs – ranging from 5 to 50%. New Mexico's grant does not require any matching funds from other sources. Connecticut requires 50 percent matching in all cases while Missouri and Michigan both require 100 percent matches from private sources.

Royalties

Oklahoma's TBFP is the only program among the comparable group with a royalty payment component.

Appendices

Appendix A: Incentive Statute

74 O.S. § 5060.20a (OSCN 2022), Oklahoma Science and Technology Research and Development Act

The Oklahoma Center for the Advancement of Science and Technology (OCAST), in conjunction with the Commercialization Center, may develop and implement a technology business financing program to provide funding and financing for and to assist qualified Oklahoma enterprises to commercialize new products, services, technology, innovations, and processes. In order to obtain funding or financing from the technology business financing program, a recipient shall be required to obtain separate private investment or funding, and may also be required to pay royalties, fees, interest, profits, or other payments generated or arising from the sale, lease, licensing, distribution, manufacture, marketing, or development of products, services, technology, innovations, and processes, whether alone or in conjunction with others, or generated or arising from a sale, acquisition, merger, or other transfer or takeover of the enterprise. Any such royalties, fees, interest, profits, or other payments or return of funding and financing shall be retained for use in the program. OCAST, in conjunction with the Commercialization Center, shall establish program specifications OCAST may contract with Commercialization Center or other qualified entity to operate and manage the program. Program funds shall not be used to pay administrative, management, or operating expenses of OCAST.

Appendix B: Comparable State Programs

State	Program Name	Company Size Limitations	Location Requirements	Investment Amount	Required Matching Capital	Repayment Terms	Royalties	Maximum Repayment Period
Oklahoma	Technology Business Finance Program	500 employees or less	50% of employees and assets must be in the state	Up to $100,000	5% to 50%	1.25x if within 1 year 1.75x if within 3 years 2x if repaid within or after 4 years	5% of gross revenue at the earlier of one year after funding, or when gross revenue exceeds $25,000 per quarter 7% of gross revenue at earlier of two years after funding or when gross revenue exceeds $50,000 per quarter 10% of gross revenue at earlier of 3 years after funding or when gross revenue	5 years

State	Program Name	Company Size Limitations	Location Requirements	Investment Amount	Required Matching Capital	Repayment Terms	Royalties	Maximum Repayment Period
							exceeds $100,000	
Connecticut	Pre-Seed Fund	Less than 25 employees and less than $2 million in annual revenue	75% of employees must work in the state	$150,000 maximum	50%	12% interest	No royalty agreements specified	2 years
Missouri	IDEA Funds - TechLaunch	Less than 500 employees	Not specified	$100,000 maximum	100%	Varies	No royalty agreements specified	Varies
Michigan	Pre-Seed Capital Fund	Less than $2.5 million in revenue	No less than 51% of employees must work in the state	$500,000 maximum	100%	Varies	No royalty agreements specified	Varies
New Mexico	Science & Technology Business Start-up Grants	Less than 50 employees	Headquartered in state	$25,000 maximum	0%	N/a	No royalty agreements specified	N/a