



OCAST



Business Plan FY 2024

Approved by the OSTRaD Board of Directors on June 20, 2023

Oklahoma Center for the
Advancement of Science and Technology

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Purpose

OCAST was established in 1987 as the state's agency for technology-based economic development. OCAST's mandate is to "grow and diversify Oklahoma's economy and provide new and higher quality jobs for Oklahomans" by encouraging "... the development of new products, new processes, and whole new industries in Oklahoma." (O.S. 74, Sections 5060.1a and 5060.2A)

Mission

To foster innovation in existing and developing businesses by:

- Supporting applied research and its implementation
- Facilitating technology transfer between research laboratories and businesses
- Providing seed capital for innovative firms in the development of new products or services
- Helping Oklahoma's small and medium-sized manufacturing firms become more competitive through increased productivity and modernization (O.S. 74, Section 5060.3)

Vision

OCAST's vision is continued growth and vitality through facilitating collaboration between state government, universities, start-up companies and established large-scale firms to develop an entrepreneurial environment that supports technology-based economic development. In pursuit of this vision and in carrying out its mission, the agency funds cutting-edge science and technology through processes that are recognized nationally and internationally for excellence, objectivity and economic impact. OCAST's strategy includes science and technology areas such as biosciences, information technology, sensors and electronics, advanced materials and energy sources and systems. Achieving this vision will result in continued growth of advanced technology companies in the state thereby increasing Oklahoma's global competitiveness, job growth, per capita income and an improved quality of life for Oklahomans.

FY24 Summary

The Oklahoma Center for the Advancement of Science and Technology (OCAST) is poised to stimulate innovation in science and technology, promote economic growth through strategic investment in cutting-edge research and capital deployment and address STEM workforce issues. Our business plan for fiscal year 2024 (FY24) aligns with Oklahoma's Science and Innovation Strategic Plan, specifically designed to elevate Oklahoma's position in important national innovation databases and grow awareness of innovation in Oklahoma.

By implementing these goals for FY24, OCAST aims to boost Oklahoma's competitiveness in science and technology, leading to an enhanced economic return. The journey toward building a robust, innovation-driven economy in Oklahoma is primed for significant strides in FY24.

FY24 Goals

Foster Statewide Collaboration: OCAST aims to create robust networks across the state's research institutions, industries, and businesses to facilitate knowledge transfer, technological innovation, and research commercialization. By enhancing cooperation, we aim to make Oklahoma a nexus of synergistic research and innovation.

Performance Indicators:

- Number of partnerships formed with research institutions, industries, and businesses.
- Increase in joint research projects and collaborative initiatives year over year.
- Amount of collaborative grant funding and investment from partnerships secured.

Advance Research, Development and Commercialization: OCAST will escalate investment in Research and Development (R&D), particularly in strategic sectors like biotechnology/life sciences, aviation/autonomous systems/defense, and energy diversifications, responding to those industry's technology needs. Concurrently, we will aim to bridge the gap between research outputs and their commercial applications, thereby facilitating a seamless transition from innovation to market impact.

Performance Indicators:

- Increase in the number of technologies licensed.
- Number of start-ups and small businesses supported.
- Increase in the revenue generated from commercialization of research outputs.
- Number of industry challenges overcome through technology development and implementation.

Promote STEM Education and Workforce Development: Recognizing the critical role of education and training, OCAST aims to foster a new generation of scientists and innovators by enhancing STEM education and aligning it with workforce development initiatives. We will partner with education institutions and industry leaders to provide quality STEM internships directly related to research and development efforts of Oklahoma businesses.

Performance Indicators:

- Number of industry internships funded.
- Number of students engaged in internships.
- Number of students offered full-time placement within Oklahoma at conclusion of internship.

Strategic Communication and Global Positioning: To solidify OCAST as the leader in technology-based economic development, we will implement a strategic communication plan targeting local, national, and global audiences. This initiative

aims to boost global awareness of Oklahoma as an innovation leader and create new opportunities for international collaboration and investment.

Additionally, efforts will be placed on strategic communication with Oklahoma legislative members including opportunities for key agency stakeholders to participate in these efforts on an ongoing basis.

Performance Indicators:

- Increase in local, national, and international media mentions.
- Increase in social media following and engagement rates.
- Number of direct contacts with members of the Oklahoma legislature

Improve Access to Capital: OCAST will address the prevailing issues of capital access for innovators, startups, and small businesses. We aim to create an ecosystem that not only fosters innovation but also facilitates sufficient funding for the fruition of these technological advancements.

Performance Indicators:

- Number of startups, small businesses, and innovators receiving technical assistance, financing, investments, and loans.
- Total amount of funds leveraged for technological advancements.
- Success rate of funding applications.
- Increase in the number of successful investment deals.

Enhance Agency Operations and Efficiency: OCAST is committed to improving its agency operations and efficiency to ensure optimal use of resources and improved service delivery. The focus will be on enhancing operational processes, leveraging technology, and implementing best practices to drive efficiency. Additionally, OCAST will work to ensure succession plans for key agency personnel.

OCAST will also use FY24 to begin the transition to new software to allow for better data collection and agency operations.

Performance Indicators:

- Reduction in time taken for core processes such as grant approvals, partnerships, and funding disbursements.

Programs

OCAST programs are managed and operated with agency staff and are designed to encourage and enable Oklahoma researchers, entrepreneurs, and small businesses to accomplish research and development, technology commercialization and technology application. Programs in the OCAST technology portfolio include:

Intern Partnerships

The Intern Partnerships program helps retain Oklahoma's best and brightest students by connecting undergraduate and graduate students involved in STEM

disciplines with Oklahoma companies to complete innovative projects that benefit the career path of the student and at the same time addresses real innovation needs of the company. OCAST provides funding that is matched by the industry partner for a STEM student to support the pursuit of an innovative solution to the company's technology needs. The Intern program:

- Allows businesses to gain access to funding for a skilled intern to help accomplish research and development.
- Provides students with hands-on experience outside of the classroom.
- Helps develop Oklahoma's next generation of scientists and engineers.
- Encourages industry-university collaboration.
- Helps students to be better prepared for STEM careers in Oklahoma.
- Encourages undergraduates to pursue graduate education and training.
- Encourages technology companies to move to Oklahoma

FY 2024 Planning Notes

- While the Oklahoma Legislature left this program unfunded, OCAST has identified funding to allow this program to continue for FY 2024.
- OCAST will keep this program open throughout FY24 and accept applications as long as funding is available.

Outyear Obligations	\$217,108
<u>FY24 Budget</u>	<u>\$500,000</u>
TOTAL FY24	\$717,108

Oklahoma Applied Research Support

The Oklahoma Applied Research Support (OARS) program funds projects for one to three years from technology areas based upon technical merit, potential for market success and commitment of resources. Funding is available for technology development and application projects. The program requires a minimum of one-dollar matching support for each state dollar awarded. Eligible applicants are Oklahoma businesses, or nonprofit organizations when the project is led by industry partners. The program requires applications to be submitted by private industry and

encourages collaboration with research institutions for the purpose of finding solutions to industry's innovation needs.

FY 2024 Planning Notes

- We are currently in contact with outside entities exploring options and cost to provide recruitment and management of external review services. With the shift of this program to serving industry partners, and the continued increase in number of applications, there is significant need to increase the number of qualified reviewers for the program.
- Existing program rules allow for Applied Research special projects. OCAST has budgeted for this allowance and will come to the board for approval before any projects are agreed to.

Outyear Budgeted	\$986,520
FY24 Budget Traditional	\$4,717,424
<u>FY24 Special Projects</u>	<u>\$1,000,000</u>
TOTAL FY24	\$6,700,944

Oklahoma Health Research

The Health Research program competitively awards research funding for one- to three-year basic research projects related to human health. Eligible applicants are Oklahoma commercial enterprises, nonprofit research organizations, universities and colleges. These awards enable researchers to gain expertise and produce data needed to obtain larger grants from other sources, including federal agencies and public and private funding organizations, and to develop patents which in the long-term can lead to commercialization. Researchers also benefit from OCAST's annual Health Research Conference which focuses on ways to assist the commercial development of new products and services resulting from health research projects.

[Health Research Fellowship](#) is a component of the Health Research program intended to help increase the number and quality of postdoctoral researchers in Oklahoma. The HRF was created within existing program statutes at the direction of the Health Research Advisory Committee as a response to the increasing demand for postdoctoral researchers.

FY 2024 Planning Notes

- Funds for this program have been transitioned to support more applied research support funding. OCAST will continue to fund all outyear obligations to complete projects under contract.

Health Fellowship Outyear Obligations	\$ 75,000
<u>Health Research Outyear Obligations</u>	<u>\$1,857,406</u>
TOTAL FY24	\$1,932,406

Oklahoma Research and Development Attraction Act

Created through 74 OK Stat § 5003.10g (2022), the Research and Development Attraction Program fosters research and development in key industry clusters, leading to the creation of new products and services that are brought to market by Oklahoma-based companies, or brought to market by relocating companies financially sponsored by an Oklahoma-based capital provider and which conduct a substantial portion of total business activity in the State of Oklahoma. This program may award matching funds to eligible businesses to offset a portion of expenses incurred through a collaborative research and development project engagement with an Oklahoma institution of higher education or nonprofit research institution.

FY 2024 Planning Notes

- Flat funding does not allow for the agency to fund this program at current appropriation levels.

Services

Small Business Research Assistance

Through the federal Small Business Innovation Research (SBIR) program, federal agencies provide \$4.5 billion in nondilutive funds annually to seed support for product feasibility studies and prototype development that is lacking in the private investment community. The federal Small Business Technology Transfer (STTR) program accomplishes this purpose and forges research collaborations between small firms and universities or nonprofit research institutions. Both the SBIR and STTR programs encourage transfer of technology into federal agency programs and private sector applications. OCAST's program offers technical assistance through the University of Oklahoma's Oklahoma Catalyst Programs to improve the quality of proposals through proposal development workshops, external expert proposal reviews, client referrals, collaboration building and partnership with commercialization support services. The program offers companies guidance in accessing additional OCAST support and other resources as appropriate to their respective stage of development. This program is managed for OCAST through a contract with the University of Oklahoma and supported by the university's Tom Love Innovation Hub.

FY 2024 Planning Notes

- During FY24, OSTRaD Board approval will be sought to initiate a Request for Proposals for delivery of these services.

TOTAL FY24

\$282,000

Inventors Assistance Service

The program assists the independent inventor in navigating the process from idea to marketplace. IAS helps inventors move toward the manufacturing, marketing and distribution of their products by providing assistance and information or referring inventors to appropriate service providers who will help them deal with specific steps in the invention process. The program provides inventors with a streamlined process to help move their innovation forward. Qualified inventors nearly ready for commercialization receive help with activities such as materials testing, market assessment, engineering resources and prototype development. This program is managed for OCAST through a contract with Oklahoma State University supported by the university’s New Product Development Center (NPDC).

FY 2024 Planning Notes

- FY24 budget amount includes reestablishing the Tulsa NPDC office. This effort will increase the capacity and number of inventors assisted and additionally provide necessary support to programs beginning in the Tulsa area including the recent Economic Development Administration, Build Back Better program.

TOTAL FY24

\$619,700

Technology Business Finance

This program is designed to promote promising innovation and to support efforts to commercialize that innovation in Oklahoma by providing early-stage financing to start-up companies, well-established firms and manufacturers. The program requires a match and includes payback provisions which helps sustain the program and provide financing to additional companies. This program is managed for OCAST through a contract with i2E Inc.

FY 2024 Planning Notes

- This program is self-funded through existing program repayments and balance.

TOTAL FY24

\$741,000

Seed Capital

Through its Seed Capital program, OCAST provides funding to innovative Oklahoma companies to incentivize co-investment. The statute and the related constitutional amendment allow the state to take an equity or debt position with firms – an authority that is unique to OCAST as a state agency. Required co-investment with the private sector as the majority investor leverages the agency’s investment. OCAST has investments through the Oklahoma Seed Capital Fund LLC, a for-profit

subsidiary of i2E Inc. Beginning in FY23, OCAST has begun to examine capital needs and will be proposing a new plan for investment of these funds in FY24.

The Seed Capital program also includes a pre-seed component intended to address the needs of companies requiring a smaller seed capital investment for early-stage projects which may develop into larger seed capital investment opportunities, if necessary, as the company continues to grow in Oklahoma.

FY 2024 Planning Notes

- OCAST staff are continuing to develop a new plan for deployment of these funds. OSTRaD Board approval for this investment plan will come in FY24.
- The amount available for this program is set-forth in the legislative budget each year and placed directly into a revolving fund.

FY23 Carryover	\$2,759,308
<u>FY24 Budget</u>	<u>\$2,105,817</u>
TOTAL FY24	\$4,865,125

Oklahoma Technology Commercialization Center

OCAST currently contracts with i2E, a private nonprofit organization, to operate the OTCC program that assists entrepreneurs, early-stage technology companies and firms seeking to commercialize new technologies. The program focuses on assessing needs, guiding clients through the commercialization process and linking them to a comprehensive network of technology sources (including Oklahoma universities) and commercialization services. The program also provides specialized business development services, introduction to early-stage risk financing and help in transferring technology to the marketplace.

FY 2024 Planning Notes

- During FY24, OSTRaD Board approval will be sought to initiate a Request for Proposals for delivery of these services.

TOTAL FY24	\$1,300,000
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Industrial Extension System

The Oklahoma Alliance for Manufacturing Excellence Inc., dba the Oklahoma Manufacturing Alliance, is a private, nonprofit organization that manages the IES program through contracts with OCAST and the Manufacturing Extension Program (MEP) of the U.S. Department of Commerce, National Institutes of Standards and Technology (NIST). Together these programs provide leadership and assistance to

Oklahoma’s small- and medium-sized manufacturers to help them become progressively more successful in their marketplace and more efficient and innovative in their operation. Through a network of manufacturing extension agents and applications engineers, the IES and NIST MEP provide real, hands-on resources for improving productivity, increasing sales and reducing costs. Using federal, state, local and private funds, the Oklahoma Manufacturing Alliance contracts with local organizations to field regional manufacturing extension agents who deliver to Oklahoma manufacturers services in technology application, workforce training, financing, market assessment and business principles. Applications engineers, sponsored also in part by Oklahoma State University, provide technical assistance to manufacturers in rural and urban areas where engineering resources may be limited. These locally accessible applications engineers assist with mechanical designs, plant layouts and a variety of other technical issues.

FY 2024 Planning Notes

TOTAL FY24	\$1,800,000
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Oklahoma Accelerator Program

House Bill 1030X established the Oklahoma Accelerator Program within OCAST. This legislation transferred the original program from the Oklahoma Department of Commerce to the agency in order to allow for the completion of the original program and funding. The Oklahoma Accelerator Program was created to offer funding to leverage private capital for the purpose of stimulating growth of early-stage startup companies throughout the state by connecting such companies with the global entrepreneurial ecosystems required to enhance business talent and investment opportunities.

The original legislation appropriated \$15 million to create a 5-year program in Oklahoma City, Tulsa, and Rural Communities. OCAST is under contract with the following entities to offer this program.

Oklahoma City Accelerator – gener8tor
Tulsa Accelerator – TechStars
Rural Accelerator – Oklahoma Farm Bureau

FY 2024 Planning Notes

TOTAL FY24	\$3,000,000
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Federal Funding Opportunities

ARPA

House Bill 1018 of the 58th Second Extraordinary session appropriated funds from the American Rescue Plan Act (ARPA) to OCAST to stand up the following partnerships and programs:

FabLab Tulsa - \$250,000
Norman Aviation Academy - \$20,000,000
Oklahoma City Innovation District - \$8,400,000
Fires Innovation Science and Technology Accelerator - \$20,000,000
Central Oklahoma Manufacturers Association - \$8,100,000
University of Tulsa Cyber Skills Program - \$12,000,000

House Bill 1018X of the 59th Extraordinary session appropriated funds from the American Rescue Plan Act (ARPA) to OCAST to stand up the following partnerships and programs

The Verge OKC - \$500,000
36 Degrees North - \$5,000,000
OCAST – Rural Technical Assistance - \$1,000,000

State Small Business Credit Initiative

In January of 2022, Governor Kevin Stitt tasked OCAST with administering the Oklahoma portion of the State Small Business Credit Initiative funding. The U.S. Treasury has allocated total SSBCI funding to Oklahoma in the amount of \$83,721,436. Of that amount of that:

- \$48,906,317 will be made available through OCAST for investments through the Oklahoma Venture Capital Investment Program (OVCI)
 - Boyd Street Ventures \$10 million
 - Cortado Ventures (primary) \$12 million
 - Cortado / Oklahoma Farm Bureau (sidecar) \$8 million
 - FortySix Venture Capital \$7 million
 - Oklahoma Life Science Fund \$10 million
- \$32,740,289 for loans through the Oklahoma Business Lending Partnership Program
 - OMES is currently in contract negotiation for this program with the selected lender(s)
- \$16.6M of the total SSBCI funds will be dedicated to socially and economically disadvantaged individuals (SEDI)-owned businesses

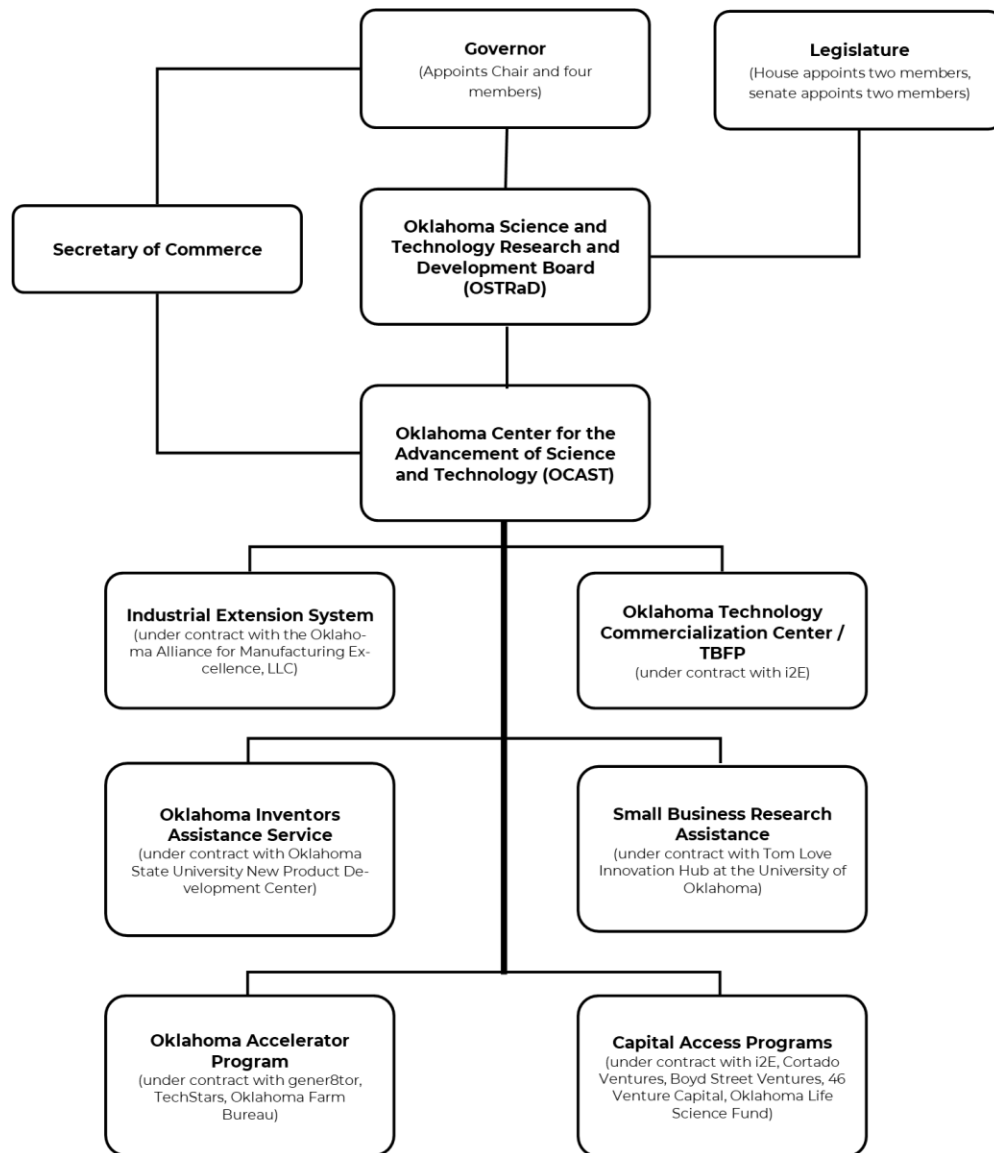
- \$4.1M of the total must be dedicated to very small businesses (VSB) – 10 employees or less
- \$2,074,830 to be utilized for a Technical Assistance Program

Other Funding Opportunities

As part of FY24 goals to foster statewide collaboration, OCAST is continuing to engage in conversations with other entities on how to seek additional funding through collaborative partnerships. OCAST will continue to engage in these efforts to leverage existing OCAST programs, identify new opportunities to address known gaps and leverage private-public partnerships to expand opportunities to grow Oklahoma's innovation economy.

Governance and Operations

OCAST Structure



Board of Directors

Oklahoma Center for the Advancement of Science and Technology (OCAST) is a state agency governed by the Oklahoma Science and Technology Research and Development (OSTRaD) Board of Directors (Title 74, Section 5060.6 and Amended by Senate Bill 487). This nine-member board of directors consists of a chair and four members appointed by the Governor, two members appointed by the President Pro Tempore of the Senate and two members appointed by the Speaker of the House of Representatives. Members generally serve four-year terms.

Elizabeth Hutt Pollard (chair)
President Cowboy Technologies
Executive Director Oklahoma State University Research Foundation

Blayne Arthur
Secretary
Oklahoma Department of Agriculture, Food and Forestry

Mita Bates
Principal
MAB Advisory, LLC

Dr. Sean Bauman**
President and CEO
IMMY

Tom Kupiec, Ph.D.*
President and CEO
ARL Bio Pharma Inc., DNA Solutions Inc., The Kupiec Group

Col. Dan Marticello*
President and CEO
CymSTAR, LLC.

Dr. Jeff McCormack*
Chief Academic Officer
Oklahoma Christian University

Dr. Brenda Rolls**
President and CEO
Frontier Electronic Systems

Dr. Kenneth Sewell
Vice President for Research
Oklahoma State University

* Board member serves on Investments and Grants Process Review Committee

** Board member serves on Executive Review Committee

Oklahoma Innovation Partners

To bolster Oklahoma's position as a hub for innovation, it is critical to increase the number of partners in the Oklahoma Innovation Partners (OIP) program. The broadening of this partnership network would facilitate a comprehensive innovation ecosystem that would accelerate the creation and commercialization of new technologies and businesses. These partnerships, spanning from local businesses to international corporations, research institutions, and government bodies, would allow for an array of collaborative opportunities. Such a network would provide a

collective pool of resources, including capital, talent, and infrastructure, that could further catalyze the state's innovation capacity.

Introducing a greater number of partners would also pave the way for increased public-private partnerships, crucial elements of a thriving innovation ecosystem. These partnerships could potentially unlock access to public funding, tax incentives, policy support, and other resources that are otherwise inaccessible to private entities alone. It would also allow the sharing of risks and rewards between the public and private sector, incentivizing the pursuit of ambitious projects that could yield substantial societal and economic benefits. Such a strategic move would not only foster an environment conducive to creativity, risk-taking, and entrepreneurship, but also position Oklahoma as a leading player in the national and international innovation landscape.

OCAST has historically operated with a small number of partners in the productive Oklahoma Innovation Model framework. To grow the innovation economy in Oklahoma and build a network of integrated support systems, OCAST has begun to actively increase the number of collaborations and will further work to increase the number of direct and indirect partnerships to enable and accelerate the translation of ideas from the laboratory to the marketplace.

OCAST Staffing

OCAST's staff functions as a team, the success of which depends heavily upon the knowledge, skills, cooperation, contribution and commitment of each member. The teamwork philosophy extends to OCAST's interactions with other agencies, organizations and stakeholders. Agency programs and services are driven by industry identified needs and technology market requirements as well as objectives to align with the States Science and Innovation Strategic Plan.

OCAST works closely with the business and financial sector to stimulate innovation in existing and developing Oklahoma businesses. Therefore, in accordance with statute, all staff positions are unclassified, governed and compensated in a manner that compares to similar positions in the private sector and, as listed below, are exempt from the Oklahoma Personnel Act. Following is a list of approved positions:

[Executive Director](#) – Directs the administrative affairs and general management of OCAST. Develops and directs implementation of strategic plans and policy related to OCAST's mission. Presents and communicates with governor, legislative subcommittees and legislative leadership regarding OCAST's annual budget request and any pending statutory changes relevant to OCAST. Communicates regularly with local, state and national leaders and organizations about OCAST and the importance of scientific research and the growth of knowledge-based businesses to Oklahoma's economy. The executive director is accountable to the OSTRaD Board. Unclassified / \$133,455 - \$200,183

[Director, Administration and Finance](#) – Responsible for the general administration of the administration and finance division including developing appropriation requests

and operating budgets; developing, implementing and administering administrative procedures for accounting, purchasing and office administration; maintaining all official records of the board and agency. The director of administration and finance is accountable to the executive director in the handling of the agency's general administrative affairs and finances including the disposition of highly confidential proprietary material submitted by applicants. Unclassified / \$70,000 - \$111,870

[Director, Programs](#) – Responsible for the general administration of the programs division including the development, administration, evaluation and revision of research funding programs, technology development and transfer activities and management of confidential proprietary material submitted by applicants. Directs the staffing of program operations, advisory committees, development and revision of program specifications, rules, regulations and division budget and appropriation requests. The director of programs is accountable to the executive director. Unclassified / \$70,000 - \$111,870

[Associate Director](#) – Responsible for designing, implementing, operating and evaluating division programs and activities, as assigned. Recommends new programs and activities related to the OCAST mission. A senior level technical strategist with a global perspective of all programs to build collaborative efforts across academia, industry and government. Supervises employees, as assigned. Responsible for the general administration of the division in the absence of the director. Associate directors are accountable to supervising directors and to the executive director for the correct disposition of highly confidential and proprietary material submitted by applicants for OCAST funding and assistance. Unclassified / \$55,000 - \$94,050

[Finance and Business Manager](#) – Responsible for performing accounting activities, purchasing, preparing analysis of expenditures and monthly reports of operations, financial statements, schedules and financial statistical data; ensuring purchasing complies with state law, OCAST procedures and best practices; recommending and implementing approved changes in purchasing practices. This position reports to the director, administration and finance. Unclassified / \$55,000 - \$75,000

[Communications Manager and Public Information Officer](#) – Develops and disseminates agency newsletters, brochures, advertisements, commercials, graphic designs, copy layouts and other agency informational releases as required by law or as needed to meet statutory mission of informing the public. This position is responsible for maintaining a functional agency digital mailing list, library of agency related literature including media coverage, in-house publications, audio and video recordings, photographs and serves as an agency photojournalist. This position fields and directs responses to all media-related inquiries. This employee is in the key position to maintain a modern web site with fresh information to keep Oklahomans informed of science and technology that is underway in the state. Produces and maintains social media activity. This position reports to the director, government relations and strategic initiatives. May supervise employees, as assigned. Unclassified / \$55,000 - \$75,000

[Finance Analyst](#) – Working within the Office of Science and Innovation, the Finance Analyst works to analyze agency investment opportunities and serve as the compliance manager for federal programs. Unclassified / \$78,000

[Client Services Manager](#) – Supervises the planning, coordination or direction of a component of the agency or program(s) established to accomplish a basic goal or mission of the agency. May supervise one or more employees and/or contractors. Represents OCAST at conferences, meetings and hearings related to OCAST's administrative operations. Unclassified / \$50,000 - \$70,000

[Programs Officer IV](#) – Supervises the planning, coordination or direction of a component of the agency or program(s) established to accomplish a basic goal or mission of the agency. May supervise one or more employees and/or contractors. Represents OCAST at conferences, meetings and hearings related to OCAST's administrative operations. Unclassified / \$50,000 - \$84,700

[Programs Officer III](#) – Under minimal supervision, plans, coordinates or directs a component of the agency or program(s) established to accomplish a basic goal or mission of the agency. May supervise one or more employees and/or contractors. Represents OCAST at conferences, meetings and hearings related to OCAST's administrative operations. Unclassified / \$45,000 - \$71,500

[Policy & Planning Legislative Liaison](#) – Serves as the primary point of contact for the Oklahoma Center for the Advancement of Science and Technology for matters before the State Legislature and Governor. This position will assist with the agency's administrative rules process and coordinate policy planning initiatives. This position also leads the public outreach and involvement initiatives for OCAST's policy processes. Unclassified / \$45,000 - \$71,500

[Data Analytics Program Manager](#) – Responsible for developing programs and processes to collect and analyze innovation-pertinent data to help drive OCAST programs and services as well as serve as guiding information for policies and issues supporting growing Oklahoma's innovation economy. Unclassified / \$50,759 - \$93,057

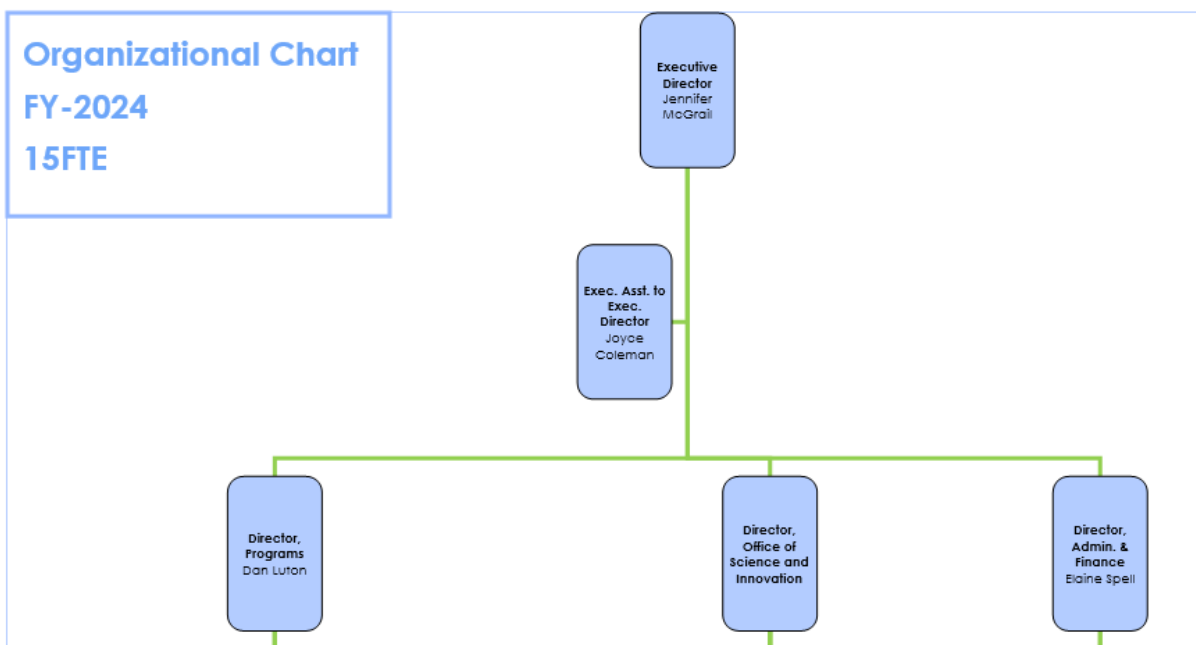
[Assistant to the Executive Director](#) – Under minimal supervision, assists the executive director in managing the administrative affairs of OCAST. Serves as secretary to the board and agency liaison with the governor's office and the secretary of state. Organizes activities and information associated with OCAST's five-year and annual planning processes, assists with agency projects and organizes the executive director's time, confidential files and correspondence. The assistant to the executive director is accountable to the executive director in performing all duties. Unclassified / \$35,000 - \$55,000

[Office Manager](#) – Serves as information technology liaison upon request and in this role reports IT issues to the Office of Management and Enterprise Services and follows up with OMES on problem resolution. Fixed asset manager: tags new assets, tracks and reports on assets in inventory and sends assets to surplus property when

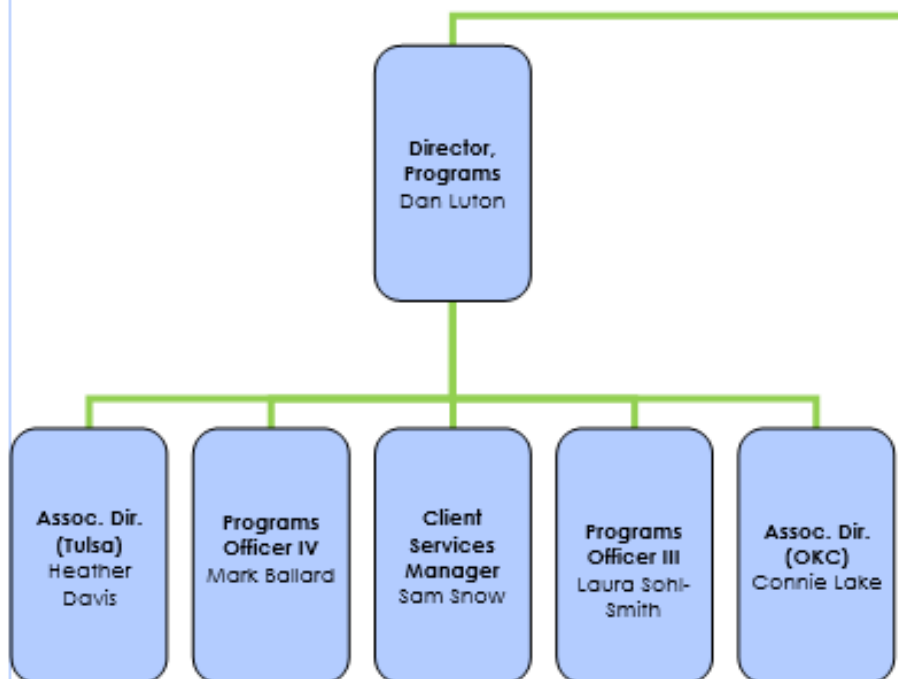
no longer needed or useful. Prepares purchase orders from purchase requests and logs incoming purchase requisitions. Assists staff with phone issues and responsible for archiving. Processes end-of-month reports and checks for aging of warrants and contacts warrant holders when necessary. Fleet management coordinator: responsible for scheduling, maintaining and reporting on the agency's leased vehicles. Maintains vendor payee information, enters time and leave into PeopleSoft, responsible for maintenance issues of agency equipment such as copier, mailing machine, shredder, fax, and serves as backup to Executive Assistant to the executive director. Unclassified / \$35,000 - \$55,000

OCAST Organizational Chart

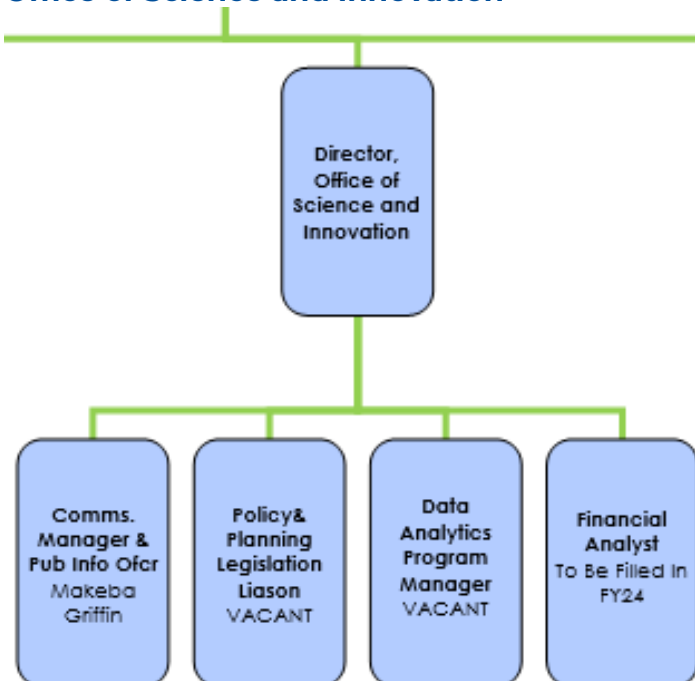
Administration



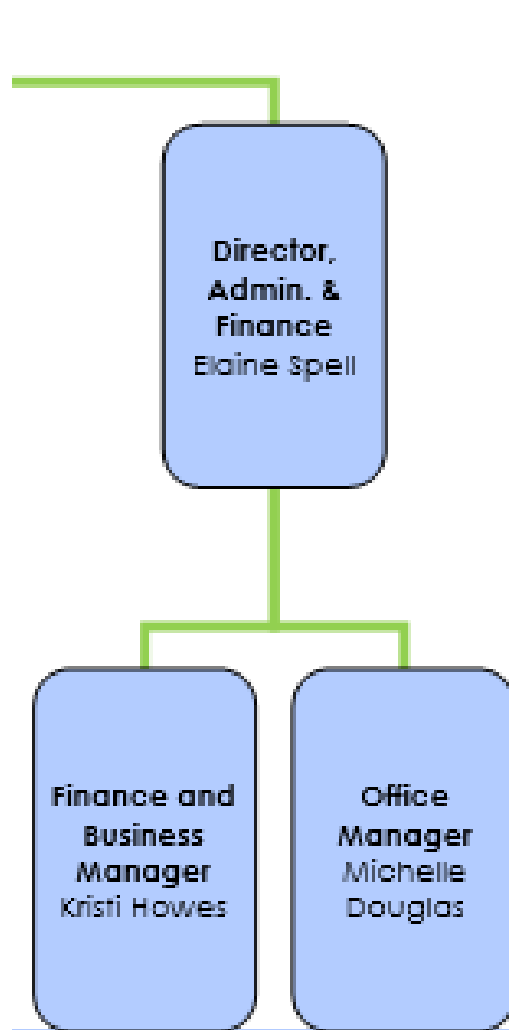
Programs



Office of Science and Innovation



Administration and Finance



Professional Service Contracts

OCAST uses professional service contracts to supplement capabilities and maintain low administrative costs. Functions exist which, due to statutory or program requirements of highly specialized and diverse expertise or infrequency, are more effectively and efficiently performed by contract.

Some, though not all, specific professional services contracts can be anticipated at the outset of the fiscal year. As of the date of submission of this business plan, the staff intends to execute the following professional services contracts in FY 2024:

- Finley & Cook for annual audit services, in an amount not to exceed \$30,500
- Office of Attorney General for legal services, one-half time for one year, in an amount not to exceed \$74,333

- Contract with SHI and Agate Software Inc. for ongoing enhancements of the electronic application system, known as OGX, to support the Programs Division processes, award payment processes, data management and reporting needs in an amount not to exceed \$33,682
- Contract with Office of Management and Enterprise Services for information technology services including personal computer support, network support and support for electronic application system not to exceed \$43,717
- Continue contracting with the Oklahoma Alliance for Manufacturing Excellence Inc. to operate the Industrial Extension System program in an amount not to exceed a base amount of \$1,800,000
- Continue contracting with Oklahoma State University to operate the Inventors Assistance Service in an amount not to exceed a base amount of \$619,700
- Continue contracting with i2E Inc. to operate the Technology Business Finance Program in an amount not to exceed the appropriated carryover funds in the amount of \$741,000 and repayments, reclaims and carryover funds currently in the program as of June 30, 2023. Any reclaims and repayments received between July 1, 2023 and June 30, 2024 will be available in FY 2024
- Continue contracting with i2E Inc. to operate the Oklahoma Technology Commercialization Center in an amount not to exceed a base amount of \$1,300,000
- Continue contracting with University of Oklahoma for the Tom Love Innovation Hub in the amount of \$282,000 to manage the SBRA program
- Continue contracting with gener8tor to operate the Oklahoma City Accelerator in an amount not to exceed \$1,000,000
- Continue contracting with Techstars Central LLC to operate the Tulsa Accelerator in an amount not to exceed \$1,000,000
- Continue contracting with Oklahoma Agriculture & Rural Management to operate the Rural Accelerator in an amount not to exceed \$1,000,000
- Contract with i2E Inc. to manage the Oklahoma Seed Capital Fund. Effective July 1, 2018, the management fee for the 2018-3 Series is based on funds under management (adjusted cash balance plus total capital receivable plus the value of investments at cost) as of July 1 of each year. The management fee will be 2.5 percent of the first \$50 million under management, plus 2 percent of any amount over \$50 million under management. This is estimated to be approximately \$1,177,592 for FY2024. These management fees will come from the OSCF 2018-3.

- Series 2007-1 of the fund is closed to new investments with its only activity consisting of monitoring existing portfolio companies and managing fund expenses. There is no management fee for Series 2007-1.
- Series 2008-2 of the Fund is also closed to new investments with all unencumbered funds transferred to Series 2018-3 in April 2020.
- Series 2018-3 is a 15-year Fund established in February of 2018. All new investments from OSCF are funded from Series 2018-3
- For Series 2008-2 and Series 2018-3, i2E Seed Capital, LLC, receives a management fee from the Oklahoma Seed Capital Fund based upon 2.5% of the Series 2008-2 and Series 2018-3 AUM balances. In accordance with the Certificate of Designations for each of the OSCF Series, the management fee for OSCF is reduced from 2.5% to 2.0% of any AUM over \$50 million. In FY2024, i2E anticipates that the total OSCF AUM will be \$49,161,186. These fees provide funding to i2E Seed Capital, LLC, and Plains Ventures to identify and produce new Seed Fund investments and follow-on investments as well as manage the existing investment portfolio. Based upon the current AUM balance, the FY2023 management fee for Series 2008-2 is estimated to be \$297,570 and \$920,072 for Series 2018-3. Total management fees for the Fund are proposed to be \$1,177,592. The final dollar amount of the management fee will be mutually agreed to by i2E and OCAST and documented in the revised FY24 OCAST fiscal year contract agreement.

Standing Advisory Committees

OCAST receives support and assistance from advisory committees for its programs – Oklahoma Health Research, Oklahoma Plant Science Research, Oklahoma Applied Research Support and Small Business Research Assistance. Research-related standing committees must consist of representatives of the “business, higher education and research communities” (74 O.S., Section 5060.9[a]) and at least one-third of the members of each committee must be researchers. Committees are approved annually by the board. The Seed Capital Investment advisory committee is created to assist OCAST in evaluating potential investments with the Seed Capital Revolving Fund (74 O.S., Section 5060.21).

Planning

Regional Benchmarks and Comparisons

Benchmarking Oklahoma against the Milken State Technology and Science Index is crucial for the OCAST's business planning purposes as it helps to measure and compare Oklahoma's capability to compete in the global economy within the science and technology sector. This benchmark can help inform OCAST's strategic decisions and policies by providing an assessment of the state's strengths and weaknesses in this area. Moreover, the Milken index takes into account a state's capabilities in research and development, human capital investment, technology

and science workforce, and technology concentration and dynamism, which could provide a holistic view of the state's standing in the sector.

Secondly, assessing Oklahoma's position in terms of entrepreneurial capacity rankings is vital. These rankings evaluate the state's ability to produce new businesses, their survival rate, and the number of high-growth companies. This comparison can provide OCAST with valuable insights into the local business climate, entrepreneurial spirit, and the potential for economic growth. Understanding these elements is important for crafting effective strategies and initiatives to support entrepreneurship, which lead to job creation and economic development.

The EDA Innovation Index, EDA change in venture capital, and the SBIR/STTR Oklahoma funding are also critical benchmarks. The EDA Innovation Index allows for understanding the innovation potential of the state by measuring indicators such as patents, business performance, and scientific and engineering workforce. On the other hand, the EDA change in venture capital provides a view of the level of venture capital investment, which is a key indicator of the state's attractiveness for startup financing. Lastly, the SBIR/STTR funding data provides insights into the federal support for small businesses in Oklahoma in terms of research and development. These benchmarks combined can provide a comprehensive understanding of Oklahoma's innovation ecosystem, investment attractiveness, and small business support, enabling OCAST to make informed decisions and establish effective plans for the state's future.

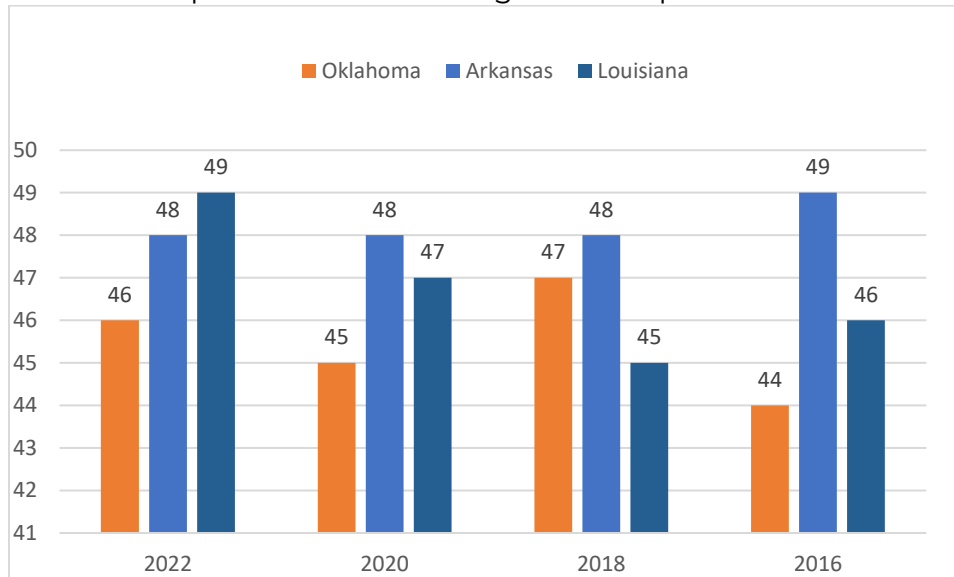
Milken State Technology and Science Index 2022

Despite concerted efforts to promote technological advancement and scientific research, Oklahoma continues to struggle with low rankings in Milken State Technology and Science Index. The index, which evaluates each U.S. state's ability to foster and sustain a technology-centric economy, ranks states based on their technological infrastructure, workforce capacity, research and development inputs, and outputs such as tech company performance and new patents. Oklahoma's low ranking indicates that it is less equipped than its neighbors to compete in the technology-driven, knowledge-based global economy and ranks in line with other small tier 5 states..

The reasons for Oklahoma's relative underperformance are multifaceted. Firstly, the state's educational system has struggled to produce a sufficient number of science, technology, engineering, and mathematics (STEM) graduates, creating a talent deficit that hampers the growth of high-tech industries. Additionally, the state has been less successful in attracting venture capital investments, which are critical for spurring innovation and commercializing research findings. By contrast, states like Texas, Colorado, and New Mexico have made significant strides in these areas, benefiting from targeted investments in education and infrastructure, proactive efforts to attract technology firms, and initiatives aimed at fostering a culture of innovation and entrepreneurship.

For FY24, OCAST will continue to work at addressing issues contributing to Oklahoma’s ranking in this report. Additionally, OCAST will work to ensure Oklahoma is accurately reporting metrics used in the calculations for this report to ensure a truer picture of the state of Science and Innovation in Oklahoma.

This chart represents the tier 5 regional comparison states.

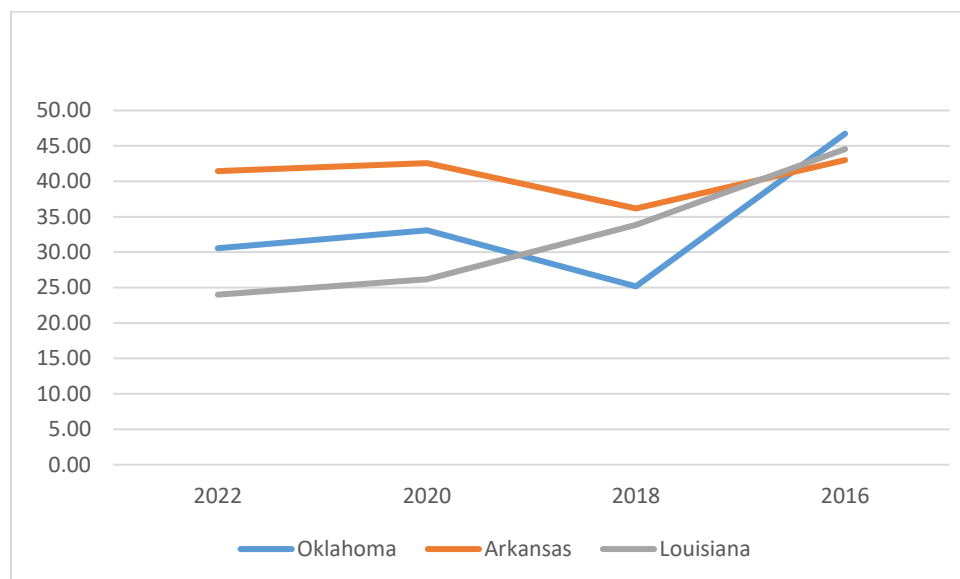


State	2022 Rank	Tier
Oklahoma	46	5
Texas	18	3
Kansas	29	4
Arkansas	48	5
Colorado	3	1
Louisiana	49	5
Missouri	35	4
New Mexico	20	3

Source: [Milken State Technology and Science Index 2022](#)

Milken – 2022 Entrepreneurial Capacity and Rankings

The Milken Institute's 2022 Entrepreneurial Capacity Ranking is a comprehensive assessment of a state's ability to enable and sustain entrepreneurial activity. These ranking measurer entrepreneurial capacity and risk capital infrastructure which are ingredients that determine Oklahoma's success in converting research into commercially viable technology services and products. The calculation includes deployment of venture capital as well as entrepreneurial activity such as patents, business formation, and initial public offerings. Oklahoma's placement in this ranking provides a measure of how well the state supports the growth and development of new businesses.

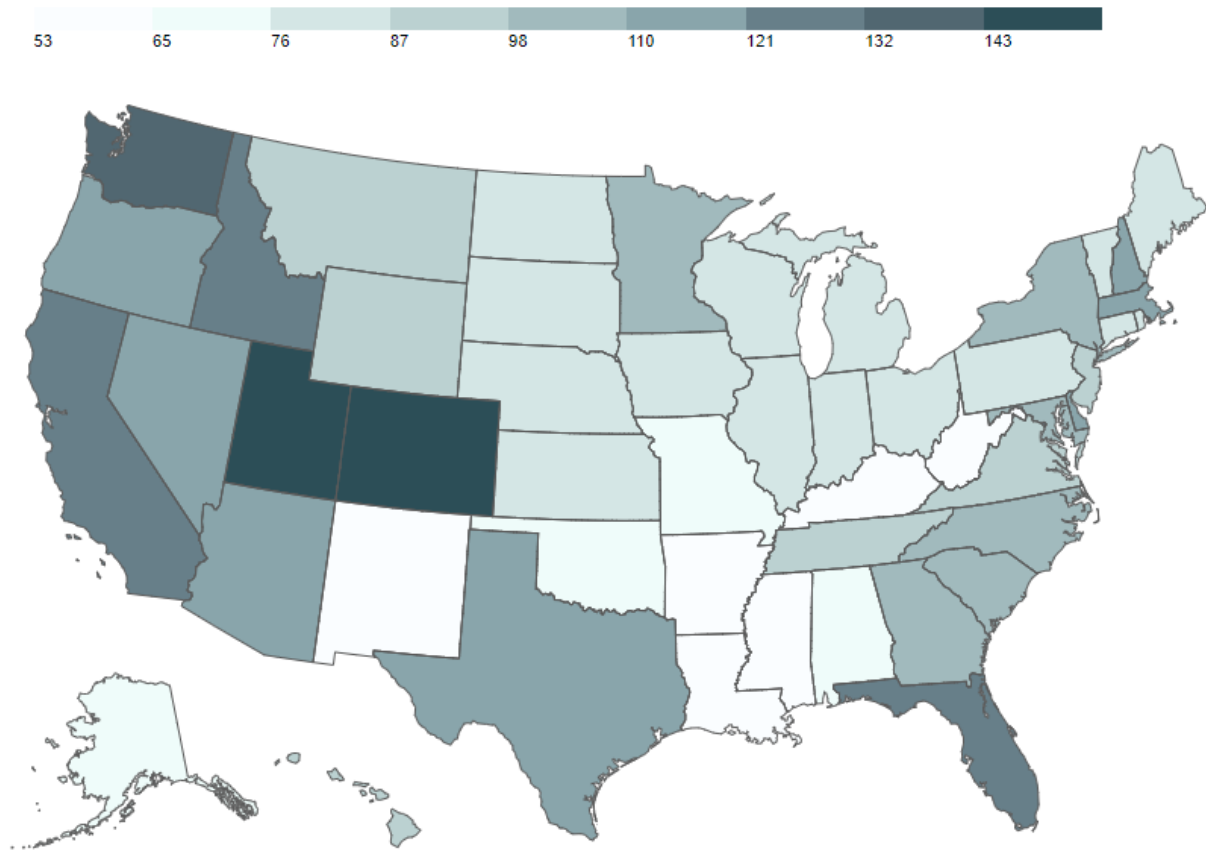


Source: [Milken State Technology and Science Index 2022](#)

Innovation Index

The EDA Innovation Index is a vital tool for Oklahoma, as it provides a comprehensive measurement of the state's innovation capacity and outcomes. The Index's focus on innovation inputs—such as research and development (R&D) investment, education level of the workforce, and infrastructure—offers a clear picture of Oklahoma's current potential for innovation. This tool allows us to make informed decisions about where to allocate resources to bolster the state's innovation capacity.

In addition, the Innovation Index's focus on innovation outcomes, such as patents, startup activity, and high-tech employment, provides valuable insights into the effectiveness of Oklahoma's innovation strategies. It tracks the tangible results of the state's efforts, indicating whether our innovation inputs are translating into meaningful outputs.



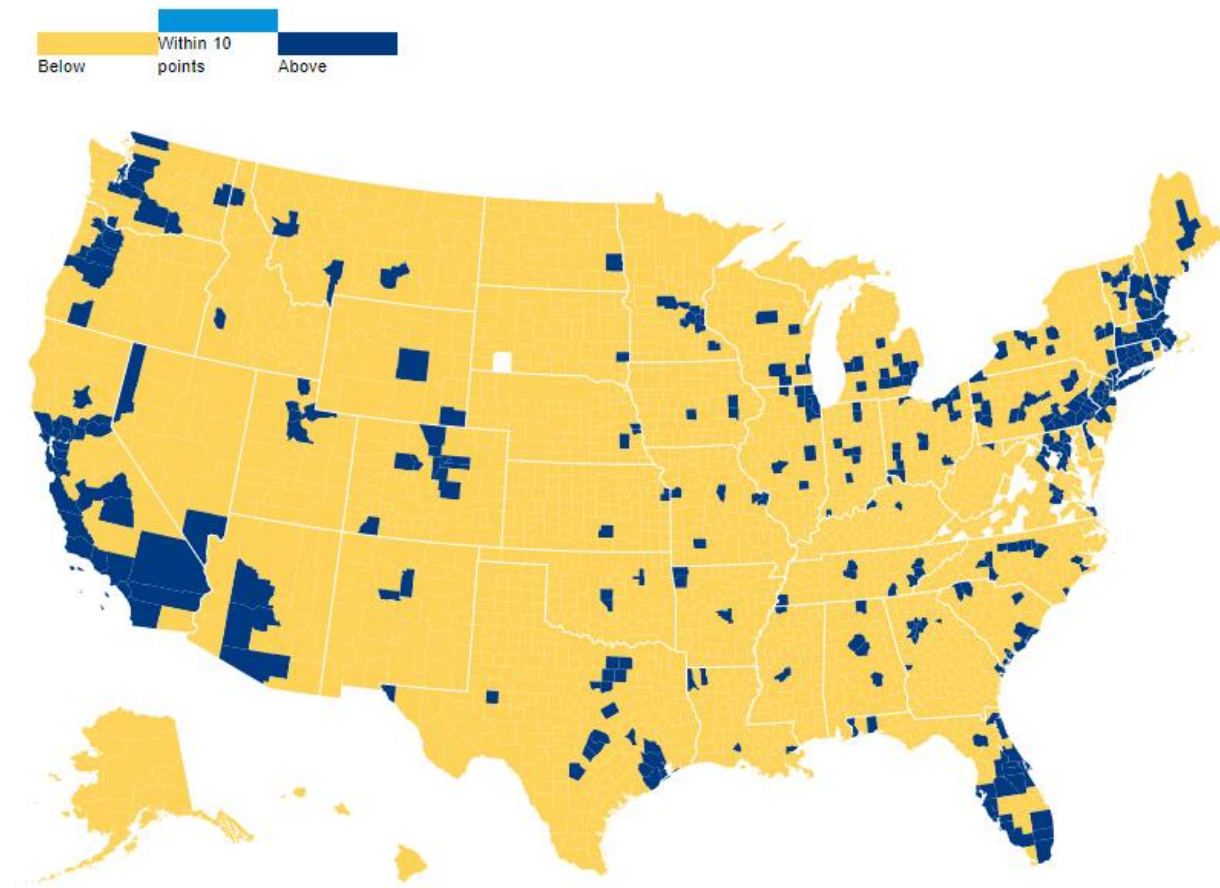
Source: EDA StatsAmerica - Data as of June 2023

Change in Average Venture Capital

According to the EDA's chart comparing the average venture capital in Oklahoma from 2011-2013 with the latest three years of available data, it is evident that there is significant potential for growth in this sector. The analysis allows Oklahoma to measure progress, understand trends, and make strategic decisions about how best to stimulate venture capital activity within the state. The data not only reflect past performance but also provide valuable information about what has been working and what might need adjustment. Oklahoma can leverage these insights to shape its policies, specifically focusing on areas where venture capital seems to have decreased or not grown as rapidly as desired.

The deployment of the State Small Business Credit Initiative (SSBCI) capital could be a pivotal factor in improving the average of venture capital in Oklahoma. The SSBCI is designed to stimulate private-sector lending and increase access to capital for small businesses and entrepreneurs. As Oklahoma begins to deploy this capital, it is expected that there will be an increase in venture capital investments, primarily due to the improved lending capacity to promising startups and small businesses. The SSBCI will act as a catalyst, potentially encouraging more private investment by reducing the risk and providing a safety net to investors.

Over time, as SSBCI capital is deployed and begins to permeate the market, we expect to see a noticeable improvement in the venture capital average in Oklahoma. The increased capital availability will help foster innovation, support new enterprises, and ultimately contribute to economic growth and job creation. Moreover, the positive trend could also attract additional investors, further enhancing the venture capital landscape in the state. However, it will be crucial to monitor these developments closely and make necessary adjustments to maximize the impact of the SSBCI and other supportive initiatives.



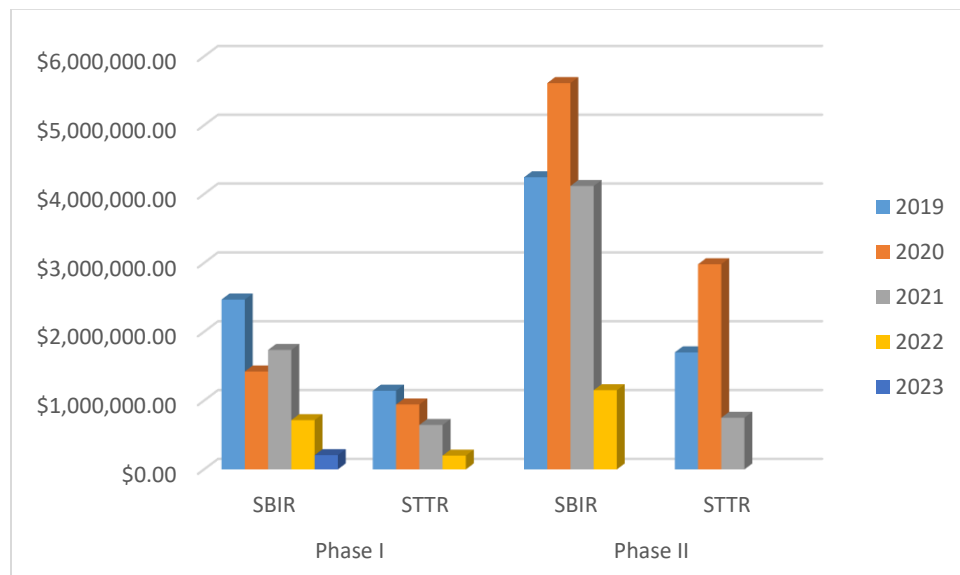
Source: EDA StatsAmerica - Data as of June 2023

SBIR/STTR Oklahoma Funding

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs represent crucial sources of non-dilutive funding for Oklahoma businesses, particularly those operating in the tech and research-intensive sectors. These programs, which are federally administered, aim to stimulate technological innovation by providing resources to small enterprises that typically have difficulty securing venture capital or traditional loans. This funding can help to catalyze innovation, enable early-stage development and commercialization of novel technologies, and promote entrepreneurship throughout the state.

Moreover, as SBIR and STTR awards are competitive grants, they not only provide financial support, but also serve as a credible validation of a business's innovative potential.

These programs have specific impacts on Oklahoma's economy. Firstly, by directing resources toward research and development (R&D), they help to foster a culture of innovation and technological advancement within the state, which can be a potent driver of economic growth. The ripple effects of this investment include job creation and the development of high-tech industries, strengthening Oklahoma's position in the global marketplace. SBIR/STTR funding helps Oklahoma's small businesses convert promising ideas into market-ready products or services, contributing to the diversification and competitiveness of the state's economy. The success stories of SBIR/STTR recipients are testament to the program's importance in nurturing small business growth and technological advancement in Oklahoma. By continuing to measure the number of dollars secured through these programs, OCAST can gauge the effectiveness of several of our offered services.



The Award database is continually updated throughout the year. As a result, data for FY22 is not expected to be complete until September, 2023.

Source: [SBIR.gov](https://www.sbir.gov)

Finances

OCAST's programs, activities and general operations are financed primarily through state general revenue appropriated funds. OCAST's enabling statute authorizes the use of three funds: the General Administration and Data Processing Fund, the Research Support Revolving Fund and the Seed Capital Revolving Fund. Each of the three funds is authorized to accept state general revenue appropriations, grants, gifts and donations. The Seed Capital Revolving Fund is authorized to accept loan repayments and investment proceeds. In addition, the Office of Management and Enterprise Services has approved the creation of the Technology Business Finance Program Fund to separately account for the funds available for the Technology Business Finance Program. Each fund is authorized to finance specific activities of the agency.

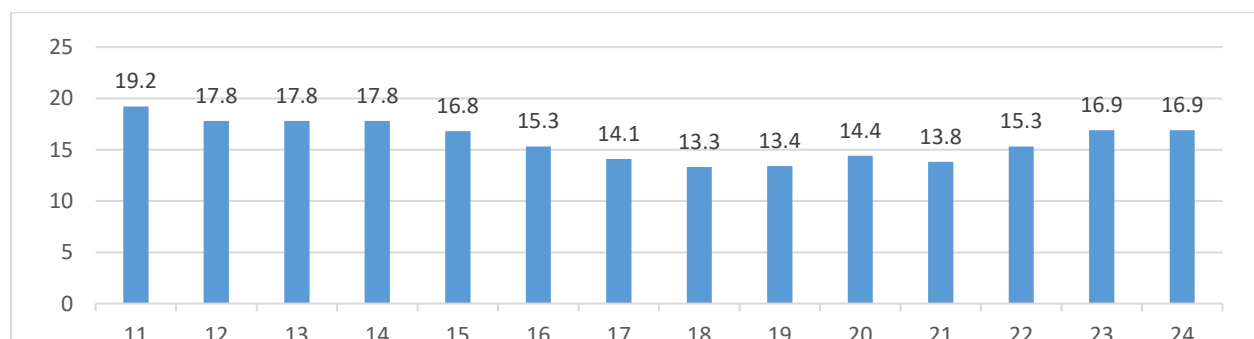
House Bill 1004X appropriated \$16,846,542 to OCAST. A portion of OCAST's annual state appropriation, \$7,136,034, is transferred to the Research Support Revolving Fund with \$3,000,000 dedicated to Applied Research and Development for Industry Innovation and for operation of OCAST award programs, and \$2,105,817 is transferred to the Seed Capital Revolving Fund for FY 2024. The revolving funds have no fiscal year limitations. All of the agency's expenditures must be confirmed by Oklahoma's Office of Management and Enterprise Services to be consistent with an annual budget work program approved by that office.

House Bill 1004X also appropriated \$13,750,000 to the Accelerator Program Revolving Fund created through House Bill 1030X.

Additionally, House Bill 1018 and House Bill 1018 X appropriated dollars from the American Rescue Plan Act for OCAST to administer for specific purposes on behalf of the State of Oklahoma.

Beginning in FY23, OCAST also received funds directly from the U.S. Treasury to create the approved programs funded through the State Small Business Credit Initiative (SSBCI) program.

Appropriation History – FY 2011 to FY 2024



Five-Year Appropriation History

<u>ACTIVITIES</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>
General Administration	\$689,939	\$649,229	\$651,628	\$777,120	\$633,338
Program Services + IT Support	1,019,189	900,487	996,410	1,027,212	1,346,732
Office of Science & Innovation	287,645	340,821	771,086	761,158	781,034
Health Research/Health Fellowship	2,244,700	2,450,669	2,499,566	3,227,564	1,932,406
Applied Research (includes Industry Innov)	2,244,705	2,450,669	2,702,200	3,522,581	5,328,407
Intern Partnerships	568,081	400,448	616,346	444,003	717,108
Plant Science Research	648,526	733,494	1,048,817	495,596	0
Industrial Extension Services	942,862	905,148	1,184,000	1,800,000	1,800,000
Technology Commercialization	1,493,186	1,393,186	1,393,186	1,300,000	1,300,000
Small Business Research Assistance	—	250,000	282,000	282,000	282,000
Inventors Assistance	299,117	287,152	391,995	450,000	619,700
Technology Business Finance Program	1,000,000	0	0	0	0
Seed Capital Fund	2,933,448	3,035,239	2,759,308	2,759,308	2,105,817
TOTAL FUNDING	<u>\$14,371,398</u>	<u>\$13,796,542</u>	<u>\$15,296,542</u>	<u>\$16,846,542</u>	<u>\$16,846,542</u>
General Administration %	4.80%	4.71%	4.26%	4.61%	3.76%

FY24 Sources and Uses of Funds

SOURCES:

Revenue for OCAST Operations:

A) Projected FY 2023 Cash Balance	1,975,448	
B) Projected Seed Capital Fund Carryover	2,759,308	
C) TBFP Restricted Funds from Paybacks	741,000	
D) FY2024 State Appropriation Revenues	16,846,542	
TOTAL SOURCES (A-D)		\$ 22,322,298

USES:

Projected Expenditures:

A) Administration	633,338	
B) Technology Information Services	781,034	
C) Program Services + IT	1,346,732	
D) Programs:		
Health Research	1,857,406	
Health Fellowship	75,000	
Applied Research / Industry Innovation	6,703,944	
Intern Partnership Program	717,108	
Inventors Assistance	619,700	
Small Business Research Assistance	282,000	
Industrial Extension Service	1,800,000	
Technology Commercialization	1,300,000	
TBFP Program Revolving Fund	741,000	Restricted
E) Seed Capital Revolving Fund	4,865,125	
TOTAL USES (A-E)		\$ 21,722,387

Estimated Cash Balance 6/30/2024	\$ 599,911
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Out-year Program Obligations

FY 2025 estimate	1,219,842	*
FY 2026 estimate (TBD)	-	*
Total Out-Year Program Obligations		\$1,219,842
Covered by Cash Currently Available (Less \$500,000 Reserve)		\$99,911
Future Appropriated Funds Needed to Cover Out-Year Obligations*		\$1,119,931

This methodology is standard practice in the OCAST award structure of first-year contracts plus two out-year contracts to complete research milestones and to comply with the State Purchasing requirements.

The out-year amounts for both FY2025 and FY2026 will increase after board approval of new awards in December 2023.

FY24 Appropriation Allocation

TOTAL Appropriation - \$16,846,542

