

JANUARY 2020

GROWING NEW VENTURES AND JOBS IN KANSAS

AN IN-DEPTH REVIEW OF
ENTREPRENEURSHIP ACTIVITIES
AND POLICIES IN KANSAS AND
HOW WE COMPARE

INSTITUTE FOR POLICY & SOCIAL RESEARCH
AT THE UNIVERSITY OF KANSAS

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Institute for Policy & Social Research
at the University of Kansas

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TABLE OF CONTENTS



Executive Summary	
Introduction	1
Kansas Comparison	2
Entrepreneurship Measures	3
Science and Innovation	6
A Look into Kansas Jobs	9
First Time Employers	9
Startups in Kansas	10
The Impact of Startups	12
Kansas Entrepreneurship Policies	17
Angel Investment Tax Credit	17
Network Kansas	17
Main Street	18
History of Kansas Entrepreneurship Policy	19
Kansas, Inc.	19
Kansas Technology Enterprise Corp.	19
Kansas Bioscience Authority	20
Competitors Entrepreneurship Policies	21
Recommendations	25–28
Concluding Thoughts	29
Appendices	30–42
References	43

Source: Leavenworth Convention and Visitors Bureau.

EXECUTIVE SUMMARY

The Enterprise Center of Johnson County engaged the Institute for Policy & Social Research at the University of Kansas to conduct a landscape analysis of entrepreneurship activity and policy in Kansas. Using several data sources, the report examines entrepreneurial activity in the state in comparison to the U.S. and our competitor states of Colorado, Iowa, Missouri, Nebraska and Oklahoma. Using data from SourceLink®, we evaluated the number of jobs resulting from startups in Kansas from 2014 to 2018. The report also provides an analysis of policies designed to support entrepreneurship in Kansas and competitor states. Finally, we make policy recommendations designed to enhance the growth of entrepreneurship in Kansas.

We summarize our **key findings** below:

- ▶ Kansas lags behind our competitor states and the U.S. as a whole in terms of non-employer establishments, early stage entrepreneurship and venture capital investments.
- ▶ Kansas has a higher rate of patents per population than our competitor states and has maintained its relatively low level of Small Business Innovation and Research (SBIR) and Small Business Technology Transfer (STTR) funding while our competitor states have lost ground.
- ▶ First-time employers (startups) are new businesses that employ fewer than 20 employees at first hiring. Kansas startups have created an average of almost 20,000 jobs per year in Kansas between 2014-2018 for a total of over 94,000 new jobs (50% of all new jobs in Kansas).
- ▶ Kansas had nearly 7,000 startups in 2018. Employees from Kansas startups can earn significantly higher wages on average than the Kansas average salary. Startups created in 2014 had an average wage 8% higher in the first year and increased to 33% higher wages than the Kansas average by their fifth year.
- ▶ Kansas has discontinued many of its entrepreneurship policies and programs. The timing of these policy and program cuts (2012) coincides with the Kauffman Early State Entrepreneurship Index for Kansas becoming negative and diverging from the competitor states.
- ▶ The Kansas Angel Investor Tax Credit appears to be underutilized.
- ▶ Kansas has fewer policies to support entrepreneurship than most of our competitor states and no longer has a state-level public venture capital firm unlike all five of our competitor states. Kansas entrepreneurs have moved their companies out of state because of this lack of venture capital financing.

Based on these findings, the report recommends policy changes to promote entrepreneurship in the state of Kansas.

Recommended **policy changes:**

- ▶ Raise awareness and expand the Kansas Angel Investor Tax Credit.
- ▶ Provide matching funds for SBIR/STTR grant awards. Expand SBIR/STTR funding by providing support for education and consulting for these proposals as well as proof of concept funding.
- ▶ Reconstitute a state venture capital program along the lines of Invest Nebraska or Oklahoma Seed Capital. Both of these states have public/private partnerships that provide a state 1:1 match of private capital.
- ▶ Enhance, develop and fund business incubators throughout the state.
- ▶ Create policies to attract, educate and support talent, including programs designed to support and develop entrepreneurs.
- ▶ Collect accurate and detailed data on the applications, awards, and use of these programs to promote evaluation of what works.

INTRODUCTION



Source: Bioscience & Technology Business Center, The University of Kansas.

We believe this information can help strengthen what is currently working while advancing measures to improve the health of entrepreneurship.

As a new decade begins, Kansas is faced with challenges and opportunities to grow and support entrepreneurship in an increasingly dynamic and changing economic landscape.

To assist policymakers, innovators, and entrepreneurs to move the economy forward, we provide an in-depth look at

the current state of entrepreneurship in Kansas. We review key measures of output and innovation relative to other states and the U.S., examine the trends and impact of startups on jobs and wages, present an overview and comparison of programs and policies designed to support and encourage entrepreneurship, and offer recommendations from these data and

from innovators and entrepreneurs across the state.

We believe this information can help strengthen what is currently working while advancing measures to improve the health of entrepreneurship, develop new innovations and products to increase job creation and quality, and to support discoveries to address the needs of current and future Kansans, both within and outside our borders.

A COMPARISON OF KANSAS ENTREPRENEURSHIP INDICATORS: U.S. AND SURROUNDING STATES

OVERVIEW

Five common indicators under two broad categories are commonly used to compare entrepreneurship activities across states. We used these indicators, illustrated to the right, to compare Kansas's entrepreneurship output to that of the United States at large as well as to Kansas's competitor states of Colorado, Iowa, Missouri, Nebraska and Oklahoma.

ENTREPRENEURSHIP MEASURES

Businesses with no paid employees, federal receipts of \$1000 or more and subject to federal income tax.

KAUFFMAN INDEX

This index consists of four key indicators: startups, startup motive, job creation by startups, startup persistence.

VENTURE CAPITAL

Funding for new businesses and startups that comes from investors (e.g., firms or people).

SCIENCE & INNOVATION

A patent specifically for a new or improved product, process or machine (includes technology).

SBIR/STTR AWARDS

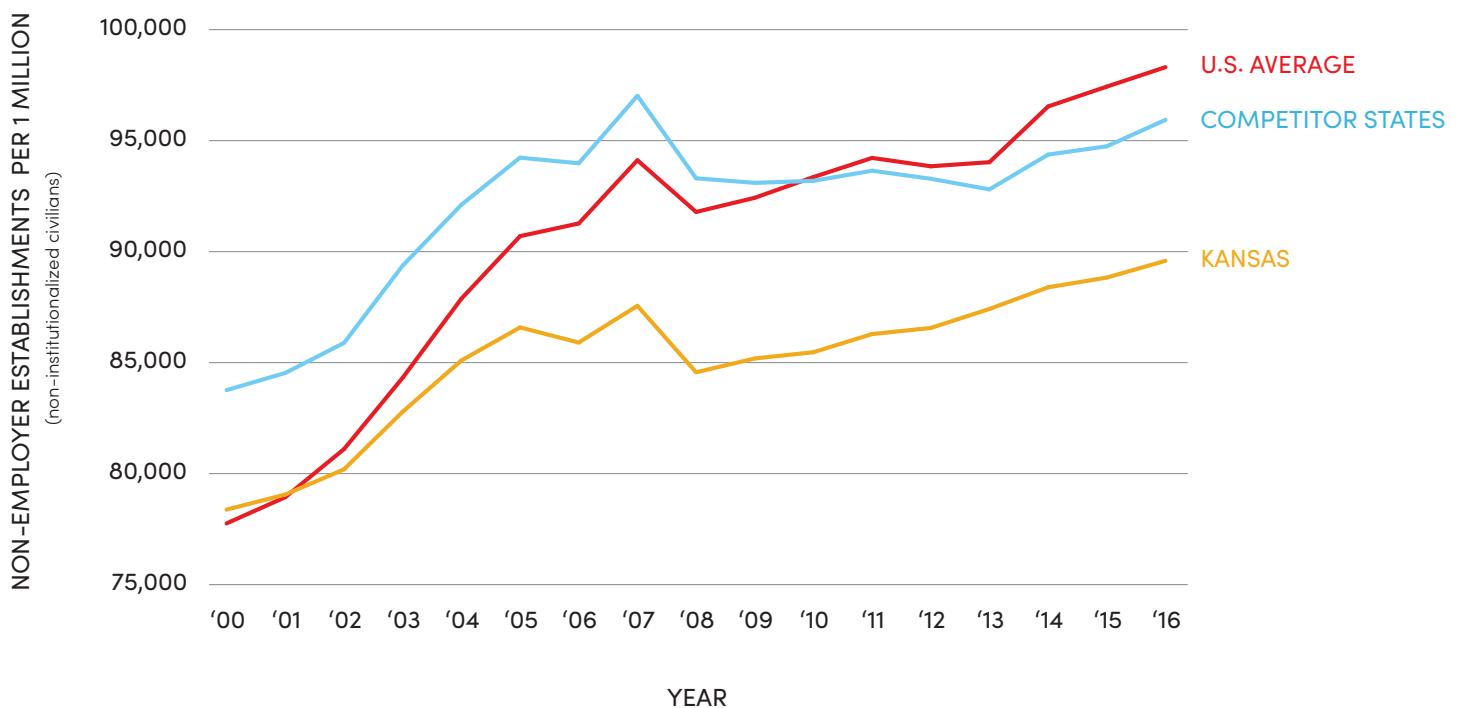
Amount (\$) of Small Business Innovation Research and Small Business Technology Transfer grants awarded.

ENTREPRENEURSHIP MEASURES

NON-EMPLOYER ESTABLISHMENTS

Kansas has consistently lagged its competitor states and the United States average in the number of non-employer establishments per capita. The U.S. Census Bureau defines non-employer establishments as businesses that have no paid employees, have federal receipts for \$1000 or more (\$1 in the Construction industry) and are subject to federal income tax. For Kansas, our competitor states, and the entire United States, non-employer establishments per capita declined sharply during the Great Recession. In Kansas and the U.S. as a whole, non-employer establishments per capita have surpassed pre-recession levels. In Kansas's competitor states, however, there were still fewer non-employer establishments in 2016 than there were in 2007, so while the gap between non-employer establishments in Kansas and our competitor states has shrunk, the gap between Kansas and the United States persists.

Figure 1. Comparison of Non-Employer Establishments



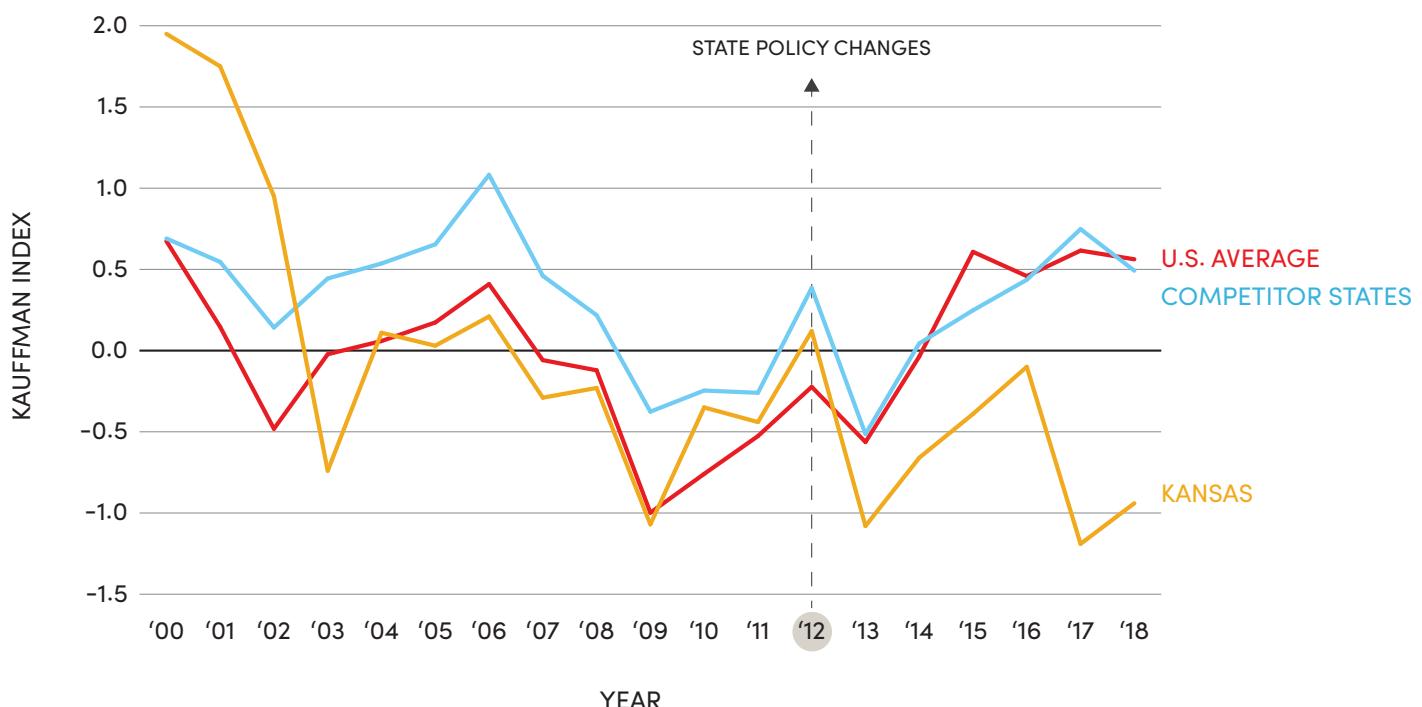
Source: Institute for Policy & Social Research, The University of Kansas; data from U.S. Census Bureau, Non-Employer Statistics, noninstitutional population estimates from Bureau of Labor Statistics, Civilian Noninstitutional Population and Associated Rate and Ratio Measures for Model-Based Areas.

KAUFFMAN INDEX

Kansas's Entrepreneurial Index has been negative since budget cuts to the Kansas Bioscience Authority and the dissolution of the Kansas Technology Enterprise Corporation.

According to the Kauffman Foundation Website, the Kauffman Early Stage Entrepreneurial Index is a "summary index that reflects entrepreneurial activity in the United States."¹ The index consists of four key indicators: the percentage of a population that starts a business, the percent of entrepreneurs who created a business by choice rather than necessity, the average number of jobs created by startups in their first year, and the percentage of startups that are still active after one year. Kansas generally followed the same trends as the U.S. and competitor states until 2012. At that time Kansas experienced a noticeable divergence that coincided with spending cuts in the Kansas Bioscience Authority (KBA) and the 2011 dissolution of the Kansas Technology Enterprise Corporation (KTEC). Kansas's Kauffman Early Stage Entrepreneurial Index has been negative since that time.

Figure 2. Kauffman Early Stage Entrepreneurial Index



Source: Institute for Policy & Social Research, The University of Kansas; data from Kauffman Foundation, Kauffman Indicators of Entrepreneurship.

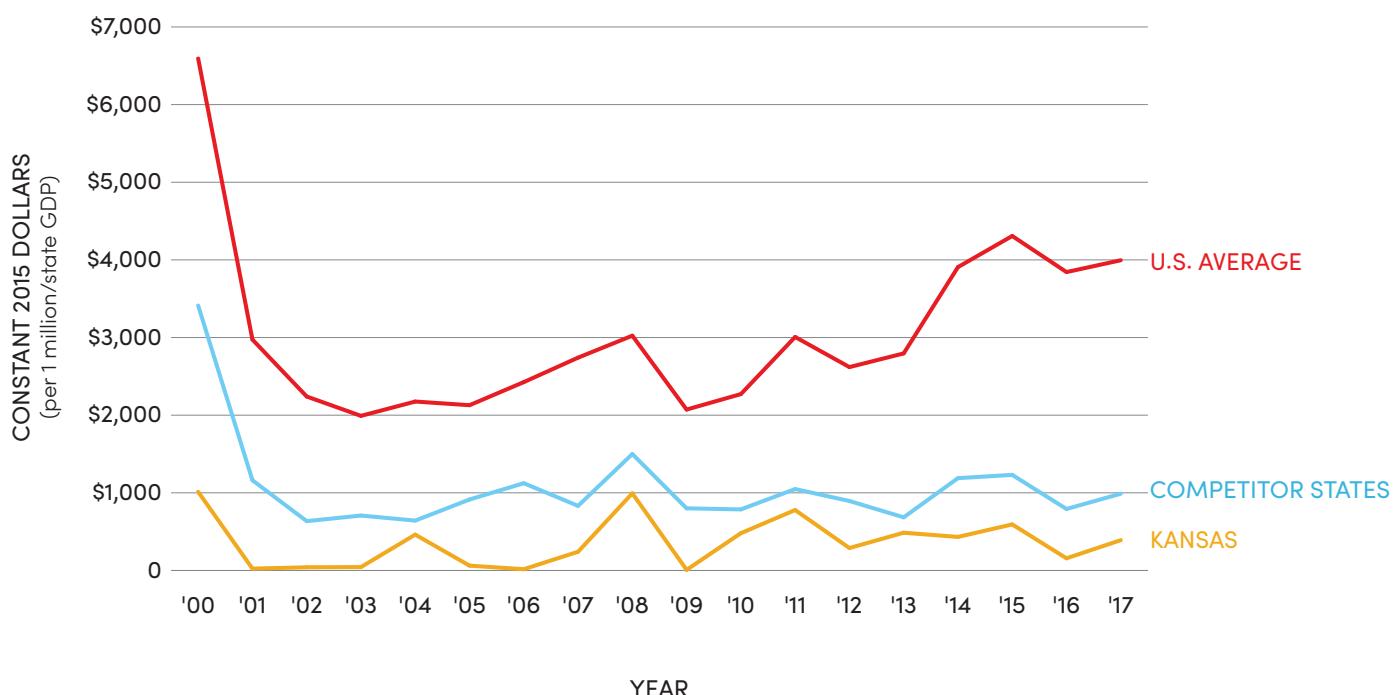
VENTURE CAPITAL

For the last two decades, Kansas has also consistently lagged its competitor states and the United States with regard to venture capital investment. Kansas's competitor states have had a higher ratio of venture capital investment to state GDP. Colorado has by far the highest venture capital investment of the competitor states considered in this analysis, and it pulls up the average. Kansas and its competitor states have still not matched their pre-recession peaks in venture capital investment and have much lower levels

of venture capital investment than the United States as a whole. Kansas also had a local peak in 2011, prior to the defunding and dissolution of KBA and KTEC. These data were gathered through the National Science Foundation's "Venture Capital Disbursed per \$1 dollars of Gross Domestic Product" adjusted to constant 2016 dollars.

Kansas's competitor states have had a higher ratio of venture capital investment to state GDP for the last two decades.

Figure 3. Venture Capital Investments



Source: Institute for Policy & Social Research, The University of Kansas; data from National Science Foundation, Venture Capital Dispersed per \$1 Million of Gross Domestic Product.

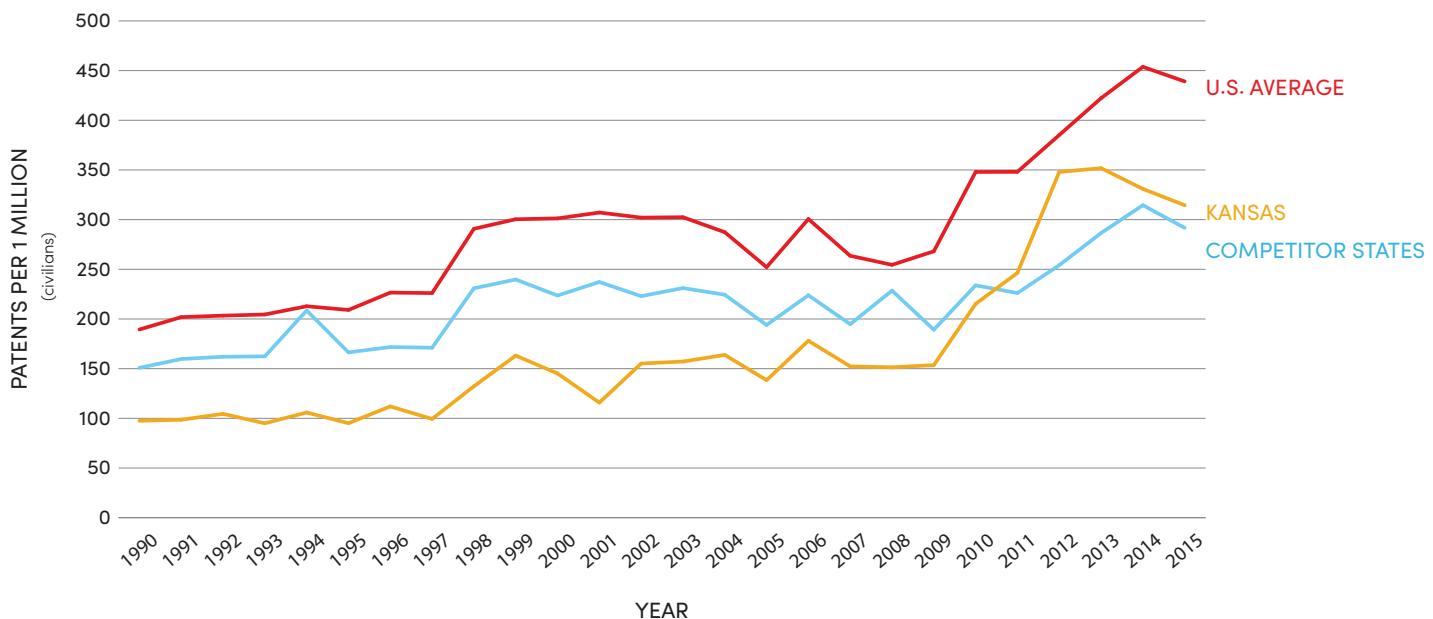
SCIENCE AND INNOVATION

UTILITY PATENTS

Between fiscal years 2017 and 2019, the University of Kansas filed 386 patent applications and 181 patents were issued.

According to the U.S. Patent and Trademark Office, utility patents are issued to applicants who “invent or discover any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof.” Utility patents, therefore, can be viewed as a measure of a state’s entrepreneurial drive. Kansas leads its competitor states in utility patents filed per capita between 2011 and 2015. The number of Kansas utility patents filed more than doubled between 2009 and 2013, following an upward trend in the U.S. in general.

Figure 4. Number of Utility Patents Filed



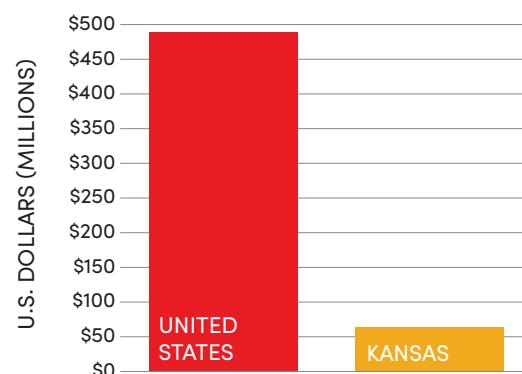
Source: Institute for Policy & Social Research, The University of Kansas; data from U.S. Patent and Trademark Office, Extended Year Set - Patent Counts By Country, State, and Year Utility Patents, population estimates from Federal Reserve Economic Data, Annual Estimates of the Population for the U.S. and States, and for Puerto Rico.

SMALL BUSINESS INNOVATION RESEARCH AND SMALL BUSINESS TECHNOLOGY TRANSFER

Kansas has lagged behind its competitor states for decades with regard to the amount of Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) funds awarded as a share of state GDP. The United States and competitor states' average amount of grant money awarded per million dollars of GDP in 2018 was \$151 and \$59, respectively, while Kansas received around \$40 in SBIR and STTR grant funding per million in state GDP. However, while Kansas's competitor states have been receiving a decreasing share of SBIR/STTR grant money as a percentage of GDP since 2004, and have been receiving less than the U.S. average

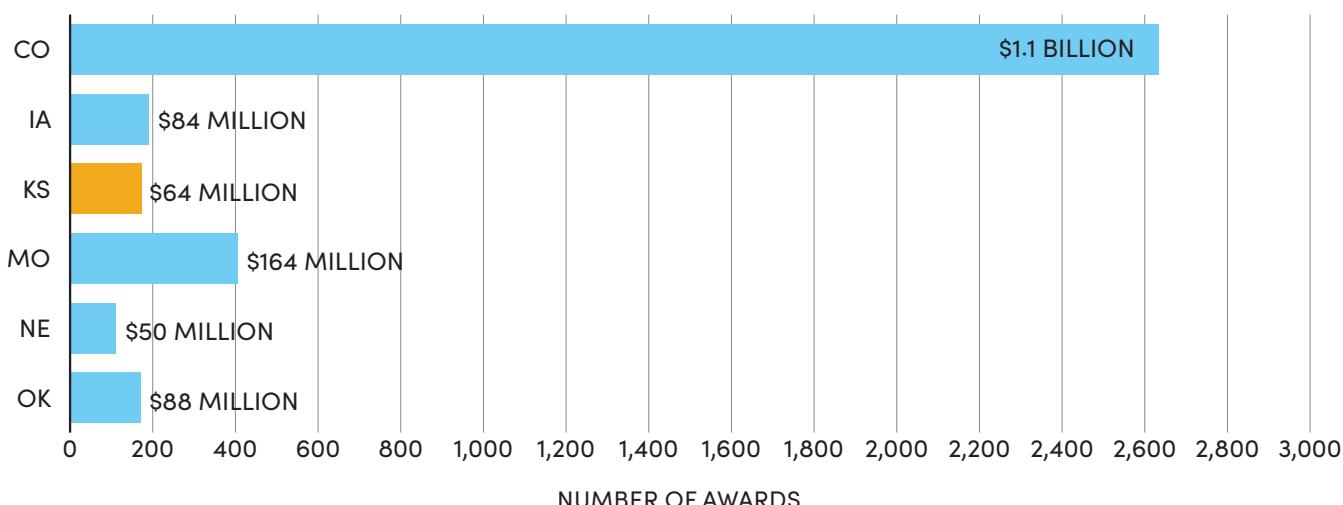
since 2010, Kansas has seen a relatively constant level of around \$40 per million GDP each year since the Great Recession. (More information about the SBIR and STTR programs are available in Appendix A).

**Figure 5. Average SBIR/STTR Obligations,
2009–2018**



Source: Institute for Policy & Social Research, The University of Kansas; data from Small Business Administration, Small Business Innovation Research, State Summary.

Figure 6. Total Number of SBIR/STTR Awards with Award Totals, 2009–2018



Source: Institute for Policy & Social Research, The University of Kansas; data from Small Business Administration, Small Business Innovation Research, State Summary.

SUMMARY

Aside from utility patents, Kansas lags behind the U.S. and surrounding states on the five broad measures of entrepreneurship considered in this overview. Kansas has been able to gain the ground it lost after the Great Recession in terms of number of non-employer establishments per capita; however, it lags behind surrounding states and the U.S. as a whole. The Kauffman Early Stage Entrepreneurial Index, shows that prior to 2012, Kansas's scores, while lower, tracked with the U.S. and surrounding states. However, Kansas experienced a dropoff after 2012 and has not exceeded zero as both the U.S. and surrounding states have rebounded and continue to track together. Both venture capital dollars and SBIR/STTR awards are significantly lower than U.S. levels and, in the surrounding states, only Nebraska received fewer SBIR/STTR award dollars over the past 10 years than Kansas.

Now, let's take a closer look at Kansas Entrepreneurship.



CORY BERKLAND

Professorship in the Department of Pharmaceutical Chemistry and in the Department of Chemical Engineering

The University of Kansas

Source: The University of Kansas.

Cory Berkland, holds the Solon E. Summerfield Distinguished Professorship in the Department of Pharmaceutical Chemistry and in the Department of Chemical Engineering at the University of Kansas. His research has generated over 65 patents. His companies have received more than \$40 million in support from NIH SBIR grants and other similar funding mechanisms to commercialize his technologies. Professor Berkland is a co-founder of five bioscience companies including one traded on NASDAQ and one that has received a prestigious award from Breakout Labs. These include Orbis Biosciences (Lenexa, KS), Savara Pharmaceuticals (NASDAQ: SVRA; Austin, TX), Bond Biosciences (New York, NY), and Orion BioScience (Omaha, NE). Three of his five companies have moved out of Kansas because of the lack of regional funding opportunities.

HIGHLIGHTS FOR KANSAS JOBS

19,882 new jobs
created on average by startups each year from 2014 to 2018.

Startups accounted for 94,227 new jobs from 2014 to 2018, representing 50% of all new jobs in Kansas.



6% of the total annual employment in Kansas is from startups.

*There were **6,663** startups in 2018 in Kansas. Average wages from jobs created by startups in 2014 were 8% higher than the KS average and grew to exceed the Kansas average by 33% in their fifth year.¹*

1,115 new jobs have been created each year on average by the science and tech sector for the past five years.¹

¹According to data from the Quarterly Census of Employers and Wages (QCEW).

A LOOK INTO KANSAS JOBS

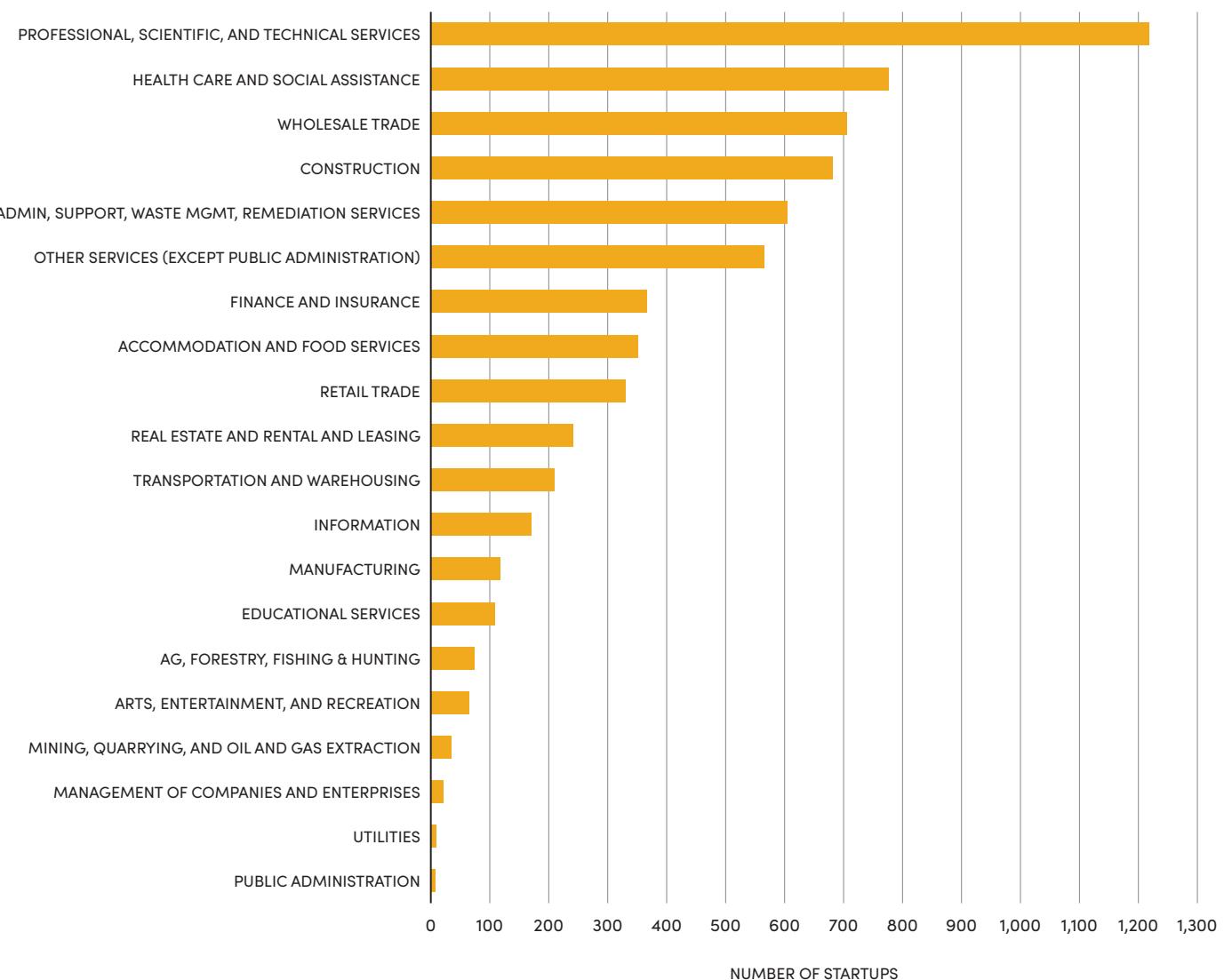
FIRST-TIME EMPLOYERS AND THEIR STARTUPS

First-time employers are an integral part of job creation in the State of Kansas and the U.S. economies. These individuals and businesses not only contribute new jobs, but their employees can earn significantly higher wages on average than the Kansas average salary. Startups created in 2014 had an average wage 8% higher than the state average in the first year and increased to 33% higher wages than the Kansas average by their fifth year. Moreover, first-time employers are often used as a proxy for the health of entrepreneurship at a statewide level. For example, the “Show Me Jobs” report from the State of Missouri, published by MOSourceLink®, examined first-time employers and startups as a way to showcase their entrepreneurial progress and successes.¹

First-time employers are defined as individuals or groups with new businesses that employ fewer than 20 employees at first hire. Their actual business is considered a “startup.”

Figure 7 shows the industries Kansas startups represent.

Figure 7. Number of Kansas Startups by Industry in 2018



Source: Institute for Policy & Social Research, The University of Kansas; data from SourceLink.

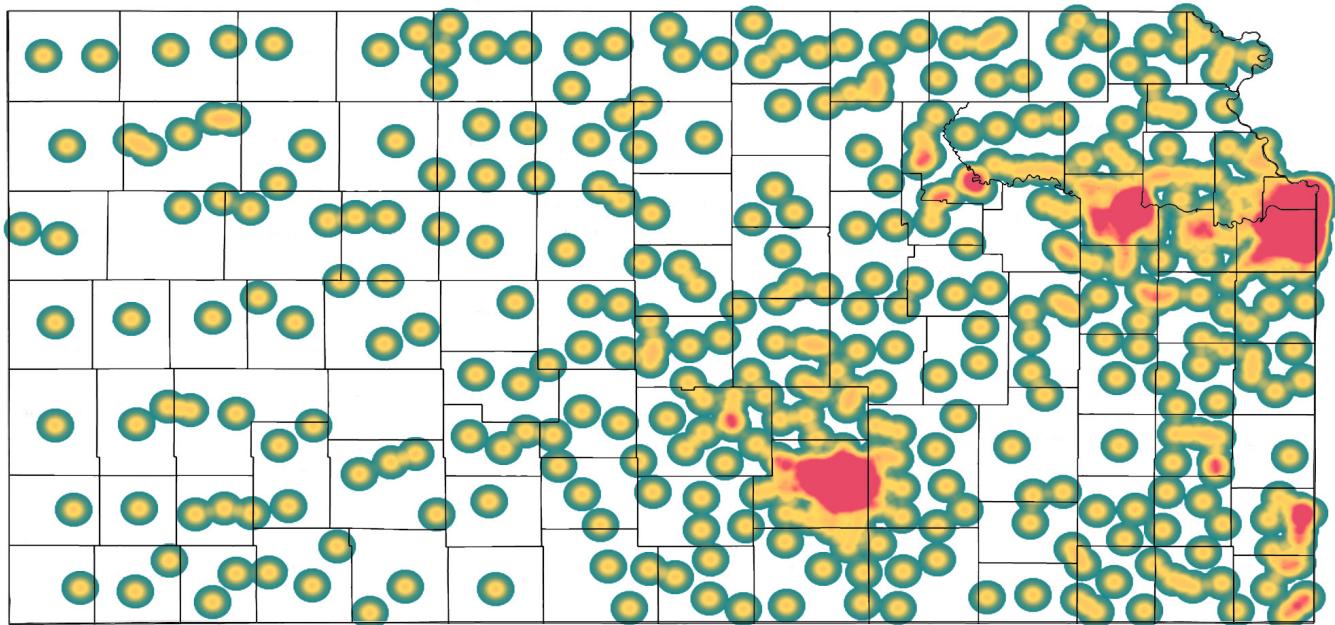
STARTUPS IN KANSAS

In 2018, Kansas had a total of 6,663 startups across the state. As demonstrated by the figure above, the professional, science, and technical sector accounted for the most startups with more than 1,200 in the state. This accounted for over 18% of all startups in Kansas in that year. Over the past five years, startups from this industry have created more than 5,500 jobs at an

average of 1,115 jobs per year. Following the professional, science, and technical industry in numbers of startups in 2018 were healthcare and social services, wholesale trade, and construction. Figure 8 on page 11 shows where these startups are located in the state and Figures 9-12 show job creation in the state as a result of Kansas startups from 2014 to 2018.

Figure 8. Heat Map Indicating the Location of First-Time Employers in 2018.

The red areas indicate more companies and green-blue areas indicate fewer companies.



Source: Institute for Policy & Social Research, The University of Kansas; data from SourceLink.



JUICE BAT COMPANY SOUTHEAST KANSAS WOODEN BAT COMPANY

Brett Macary and Colton Pogue, members of Pittsburg State University's baseball team, received a \$10,000 grant from PSU's JumpStart Kansas Entrepreneurs Grant. They developed the idea of making a wooden bat company in a marketing course with the concept of combining the craft of woodmaking with technology and innovation to enhance a batter's swing.

Source: Roger Nomer, Joplin Globe.

The map above shows clusters of startups in more urbanized areas, such as Kansas City, Wichita, Topeka, Lawrence and Manhattan. There are also some red clusters in the City of Hutchinson, and in Cherokee (i.e., City of Baxter Springs) and Crawford (i.e., Cities of Arcadia and Pittsburg)

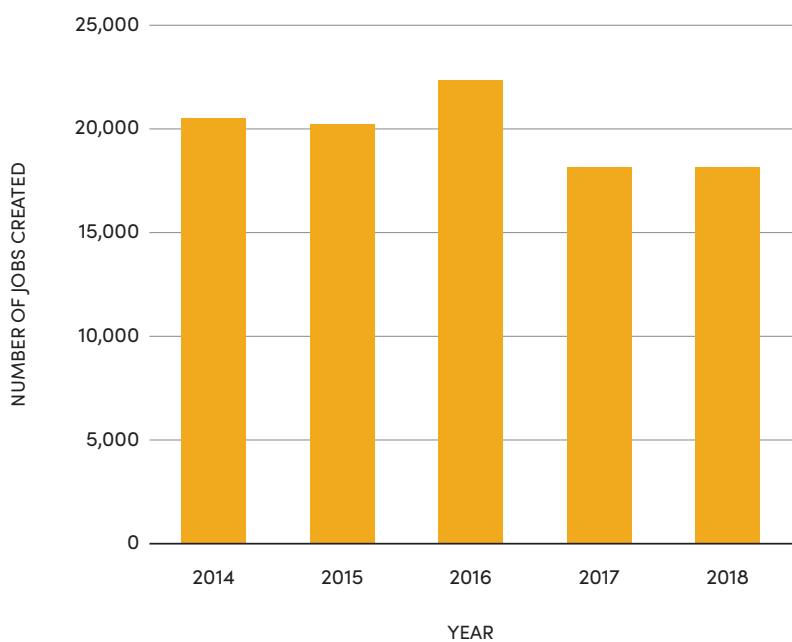
counties. It is possible these red clusters in Southeast Kansas are due to Pittsburg State University's Center for Innovation and Business Development's JumpStart Kansas Entrepreneurs Grant, which awarded funding to six local businesses in Southeast Kansas counties.

THE IMPACT OF STARTUPS ON KANSAS JOBS

From 2014 to 2018, startups created an average of 19,882 new jobs per year in the State of Kansas. Taking into consideration the number of employees these same startups hired in 2014 and each succeeding year as well as job losses, startups created 94,227 jobs from 2014 to 2018. This accounts for 49.7% of new jobs added and 5.8% of all jobs in Kansas in 2018 (Figure 10).

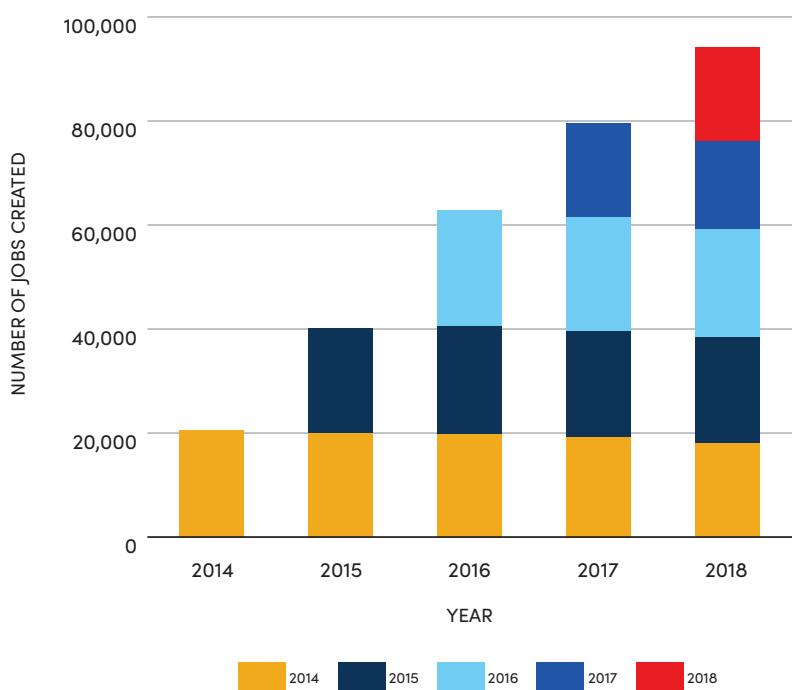
New firms experience a high rate of closure in the years after starting, eliminating all the jobs they created.² This is true within Kansas according to the QCEW data, which shows that of the 6,300 first-time employers in 2014, about half were no longer employing anyone in 2018. According to the job numbers, the firms that do survive increase their hiring and help make up for the jobs lost to firm death.

Figure 9. Job Contributions from Kansas Startups Annually, 2014–2018



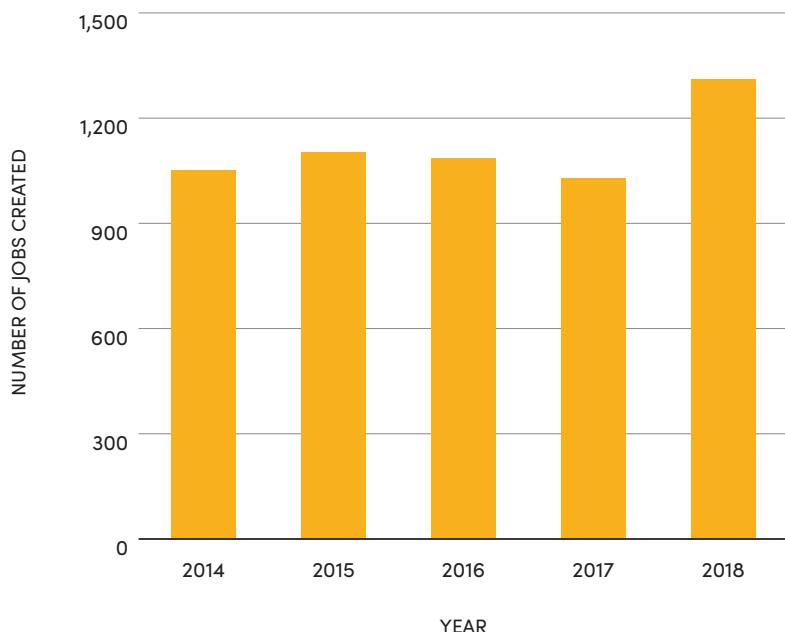
Source: Institute for Policy & Social Research, The University of Kansas; data from SourceLink.

Figure 10. Cumulative Job Contributions from Kansas Startups Annually, 2014–2018



Source: Institute for Policy & Social Research, The University of Kansas; data from SourceLink.

Figure 11. Job Contributions from Kansas Science and Technical Startups Annually, 2014–2018



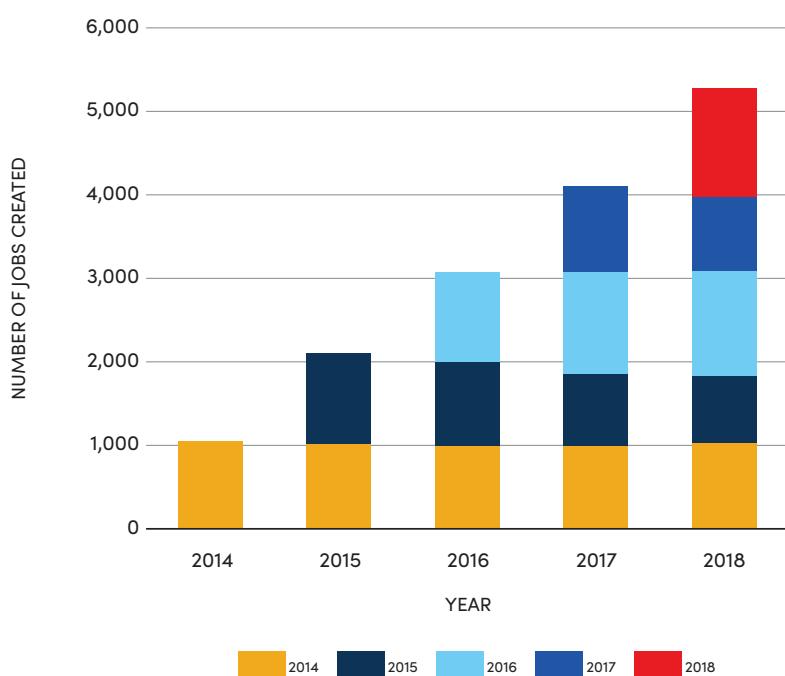
Source: Institute for Policy & Social Research, The University of Kansas; data from SourceLink.

SCIENCE AND TECHNOLOGY STARTUPS

A closer look at science and technology startups shows that these firms are responsible for approximately 5% of all new jobs created from startups between 2014 to 2018.

Accounting for the employees these same tech firms hired in each succeeding year and accounting for job losses as well, tech startups created 5,282 jobs from 2014 to 2018 (Figure 12).

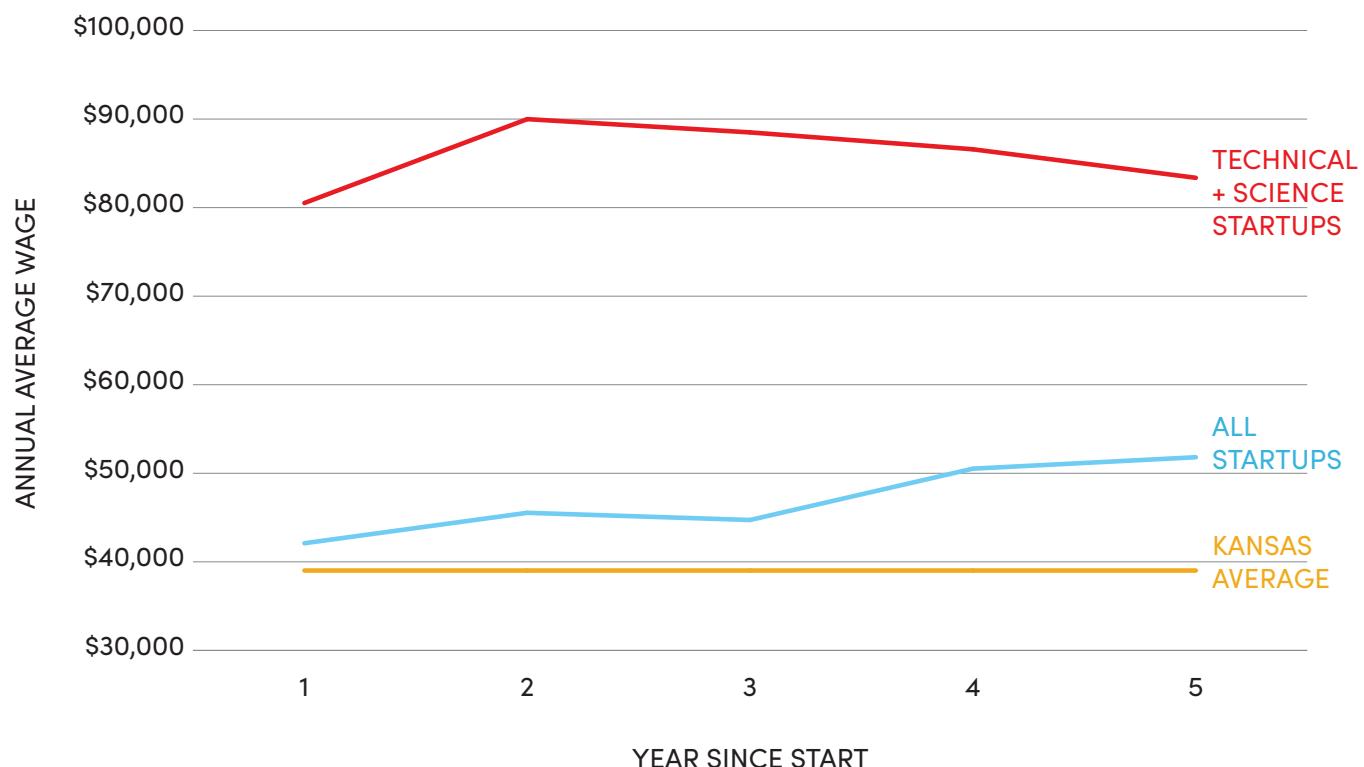
Figure 12. Cumulative Job Contributions from Kansas Tech Startups Annually, 2014–2018



Source: Institute for Policy & Social Research, The University of Kansas; data from SourceLink.

New and young companies tend to have significantly higher average wages than the state average. Average annual wages by Year 5 of firm life for startups overall at \$51,812 outpaced the average Kansas wage of \$39,017 by 60%. For science and technical startups the average was even higher at 113%, with an average annual wage of \$83,365 in Year 5 (Figure 13).

Figure 13. Wage Averages for Kansas, All Startups and Science & Technical Startups



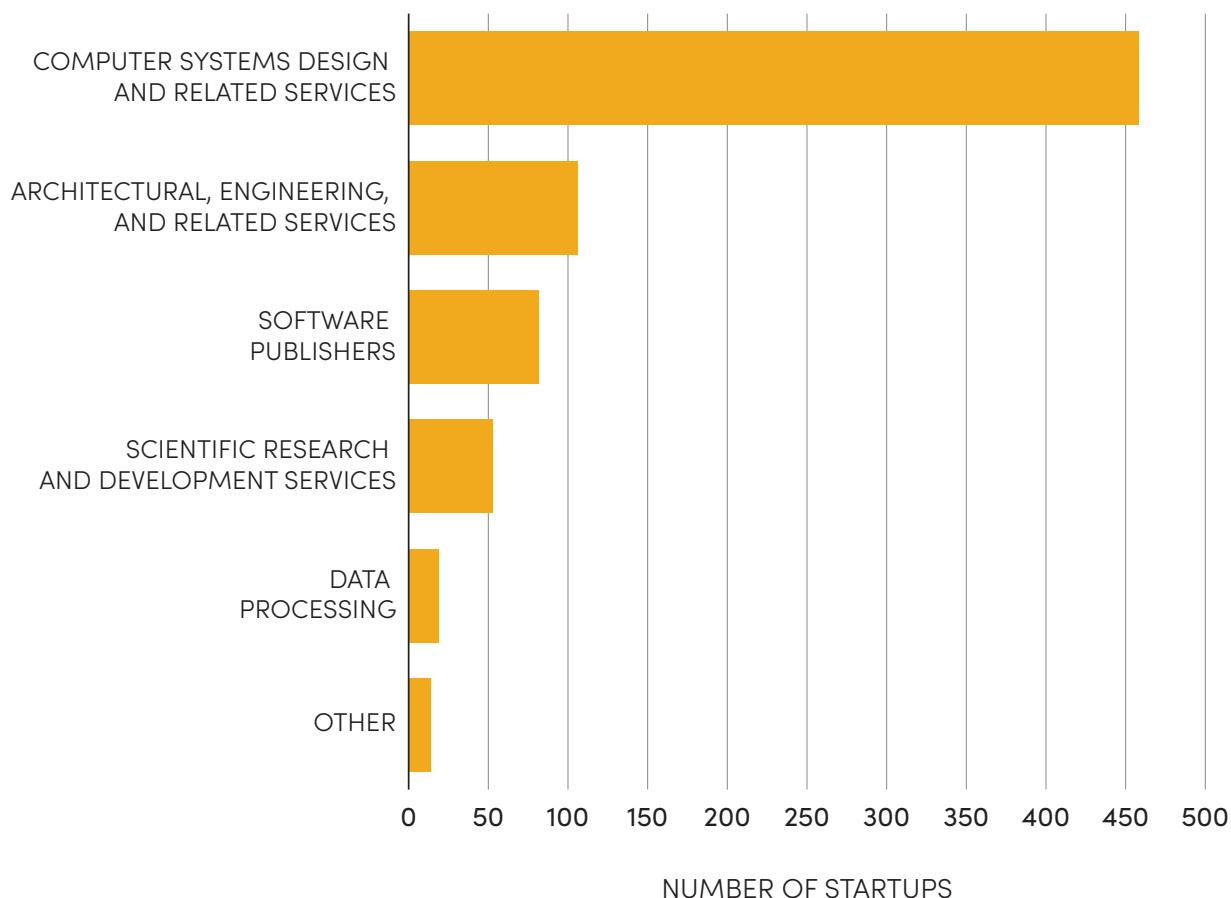
Source: Institute for Policy & Social Research, The University of Kansas; data from SourceLink.

Groover Labs is a co-working space in Wichita focused on science and technology prototyping. They offer advanced prototyping equipment as well as staff who serve as experts and mentors.



Source: Tracy Hoover and Curt Gridley, Groover Labs.

Figure 14. Science and Technical Startups by Segment in 2018



"Other" includes computer and peripheral equipment manufacturing, semiconductor and other electronic component manufacturing, pharmaceutical and medicine manufacturing, aerospace product and parts manufacturing, and navigational and other electronic component manufacturing.

Source: Institute for Policy & Social Research, The University of Kansas; data from SourceLink.

The majority of Kansas's science and technical startups are in the computer systems and design sector, followed by the architecture and engineering sector and the software sector (Figure 14).

SUMMARY

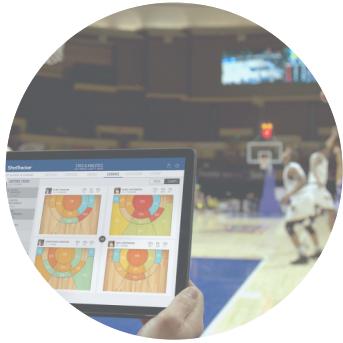
New and young firms accounted for almost

50% of new jobs added over the last five years. While there is a high rate of closure, the remaining firms and the new firms make up for jobs lost over five years. Average startup wages, particularly for science and technical startups, far outpace the state average. While the distribution of startups is clustered around population centers, there were startups in almost all Kansas counties in 2018.



**DAVYEON ROSS &
BRUCE IANNI**

Co-Founders



**SENSOR-BASED
TECHNOLOGY**



**SHOTTRACKER
TEAM**

THE STORY OF A KANAS TECH STARTUP: SHOTTRACKER

ShotTracker CEO Davyeon Ross is an athlete “who likes to win,” he said of the defining characteristic that has helped him turn his Merriam, Kansas based company, ShotTracker, into a startup slam dunk.

Ross, along with partner Bruce Ianni, started ShotTracker in 2013 by launching a wearable sensor to track and analyze basketball shots. They have evolved their product into a sensor-based technology that tracks statistics and analytics for basketball practice and games in real-time. It’s a small sensor that goes on the player and a small sensor that goes in the ball. There are sensors around the arena or facility, where they track the location of the player and the ball within two to five centimeters. It can track 18 players on the court at once, plus the court has four overhead sensors to track additional movement. The ball also has a built-in sensor, which the company developed in partnership with Spalding.

In addition to being able to show a live view of practice, Ross explained that their algorithms can turn this raw data into every single statistic typically collected by hand in a basketball game except for fouls. These include turnovers, steals, assists and shots. This revolutionary sensor-based system instantly delivers 70+ basketball stats and analytics to teams, broadcasters and game partners.

To date, ShotTracker has raised over \$26 million. Noteworthy investors include Magic Johnson, The L.A. Dodgers, and former NBA Commissioner David Stern.

Photo sources: Startland News and ShotTracker.

KANSAS ENTREPRENEURSHIP POLICIES

At one time Kansas was a national leader in supporting entrepreneurship. However, Kansas discontinued many policies designed to support new business development. We discuss existing programs and those that were discontinued.

ANGEL INVESTMENT TAX CREDIT

In place since 2005, the Angel Investment Tax Credit is the largest entrepreneurship-focused program in terms of total funding. Designed to improve capital access for start-ups, it provides 50% of an individual's "angel" investment as a state income tax credit up to \$250,000 in tax credits per taxable year. Qualifying investors must meet the SEC definition of an accredited investor and be registered with the Kansas Department of Commerce. Businesses that wish to receive angel investments must also be registered with the Department of Commerce. According to the Kansas Angel Website, 39 companies were qualified to receive angel investments through this program. According to SourceLink, there were

6,663 new startups in 2018 alone, meaning that this program in Kansas is used by only a small percentage of new companies. It is difficult to do an in-depth analysis of the costs and benefits of this program, however, because tax reporting laws do not require information on which companies receive qualifying investments, how much they individually receive, and how many tax credits are actually used. According to Kanview.ks.gov, between 2005 and 2018 there were \$70,440,909 in tax credits issued, creating or preserving 2,526 jobs at an average cost of \$27,886 per job. This does not consider, however, how many tax credits were actually used, so the actual cost per job is likely lower.

NETWORK KANSAS

The Kansas legislature also offers tax credits to support NetWork Kansas, a non-profit organization founded via the Kansas Economic Growth Act of 2004. Kansas offers a state income tax credit, also known as the Kansas Center for Entrepreneurship Tax Credit, for donations to NetWork Kansas of 75% of the amount donated. NetWork Kansas supports entrepreneurs throughout

the state, mainly by providing seed capital to entrepreneurs and small businesses in rural and distressed areas. There is a \$2 million annual cap on credits issued in this program. NetWork Kansas releases a yearly impact report with a running total of the funds NetWork Kansas invested in small business and total capital leveraged through these investments. In the most recently available impact report, NetWork Kansas reported it had invested a total of \$31.3 million in their StartUp Kansas, Capital Multiplier Loan, E-Community Loans, and Capital Multiplier Venture programs, leveraging a total of over \$315 million between 2009 and 2017. NetWork Kansas also holds annual youth entrepreneurship competitions, with 7th through 12th grade participants representing their "E-Community."

In 2007, an external evaluation found that, through \$221,000 in donations, the program retained or created 29 jobs in Kansas's small communities. A 2008 Kansas legislative Post-Audit report suggested that the tax credit cap be raised because NetWork Kansas was facilitating growth in entrepreneurship. The current \$2M cap, however, is still in place. Network Kansas created the Kansas Capital Multiplier Loan and Venture Funds in 2011. This provides one-time funding with a 9% match of

private capital and is capped at \$250,000.

MAIN STREET

Kansas has a statewide Main Street program, part of the national Main Street program, that helps raise money for local businesses in distressed downtown areas in Kansas. Although the program did not receive state funding between 2012 and 2019, it was able to continue some of its work through funding from local government and businesses, as well as the public. In 2019, the state legislature allocated \$250,000 to the Kansas Main Street Program as part of a new revitalization initiative. According to Kansas Secretary of Commerce David Toland's blog, the Kansas Main Street program has engineered "over \$600 million in redevelopment, including the opening and expanding of more than 3,800 jobs." It is not clear how much of this funding comes from local government sources and how much came from the state, so a cost-benefit analysis of state money is not possible. This program also has the positive side benefit of generating business growth, as well as population growth or stability, in parts of the state that have suffered from declining populations and depressed local opportunities.

A HISTORY OF KANSAS ENTREPRENEURSHIP POLICY

OVERVIEW

In the early- to mid-1980's, the Kansas economy was in a slump and the biggest industries (aviation, oil and gas, and agriculture) were suffering economic setbacks. In response to this concern, in 1986, a non-partisan group including the governor, legislators, university representatives, and private sector individuals reviewed information and made recommendations for a new economic development strategy for Kansas, known as the Redwood-Krider Report. As a result of those recommendations, Kansas, Inc. and KTEC were established.

KANSAS, INC.

Kansas, Inc. began in 1986 with a mission to strategically build a strong, diversified economy promoting new and existing industries. As a nonpartisan state agency, it identified, built, and promoted a strategic plan for economic development efforts in the State of Kansas. Kansas, Inc. provided a forum for business and industry, local leaders, and state executive and legislative officials to debate issues directly with one another. It also managed privately-funded

research programs and identified policy options and built consensus for action on vital economic issues. In 2011, Governor Brownback signed an executive order abolishing the agency. It was replaced by a newly created Kansas Governor's Council of Economic Advisors and the former director of Kansas, Inc. was moved into the Kansas Department of Commerce to serve as Executive Director for the Council. The director left in 2016; we can find no evidence that this advisory council still exists.

KANSAS TECHNOLOGY ENTERPRISE CORPORATION

KTEC (Kansas Technology Enterprise Corp.) was established in 1987 to assist Kansas entrepreneurs and technology companies by supporting the development and commercialization of new technologies through a statewide network designed and built to support researchers, entrepreneurs, and technology companies through each phase of the technology life cycle. Effective July 1, 2011, KTEC moved under the umbrellas of the Kansas Department

of Commerce and the Kansas Board of Regents. In May 2011, the Kansas legislators voted to abolish KTEC as part of Governor Brownback's cost-cutting proposal. It was reported that KTEC employees spent their last weeks on the job notifying the more than 200 programs KTEC assisted with investments, business development, and technical services that KTEC was closing. The university-based Centers of Excellence and Entrepreneurial Center from KTEC were among the programs that were transferred. The Pipeline Entrepreneurial Fellowship Program was not continued and is now an independent organization.

KANSAS BIOSCIENCE AUTHORITY

KBA (Kansas Bioscience Authority) was a public-private venture capital partnership created by the 2004 Kansas Economic Growth Act to accelerate growth in the bioscience sector. The KBA focused on the industry sectors where Kansas had comparative advantages—agribusiness, animal health, and human health—by bringing together industry expertise and capital-raising experience to each opportunity. In 2016, Governor Brownback and legislative leaders on the State Finance Council unanimously agreed to authorize the sale of the investment portfolio created for about \$14 million. The state had invested

\$232 million in KBA ventures. The KBA was established as a public-private partnership during Democratic Governor Sebelius' administration but was the brainchild of two Republican lawmakers. The KBA is credited with helping create a biosciences corridor that stretches from Manhattan to Columbia. It is currently a wholly owned private venture capital firm with a focus on bioscience industries.

SUMMARY

After the Redwood-Krider report, Kansas became a national leader in policies designed to support business growth and development. Kansas, Inc., KTEC and KBA were designed to retain existing industries and support the development of new industries. Those programs were discontinued while the Angel Investment Tax Credit and NetWork Kansas remained. The Kauffman Early Stage Entrepreneurship Index in Figure 2 indicates that at the time those programs were discontinued, Kansas entrepreneurial activity fell and has never recovered.

ENTREPRENEURSHIP POLICIES IN COMPETITOR STATES

While Kansas has discontinued many of its entrepreneurship programs, our competitor states have implemented policies and

programs to support entrepreneurship (Table 1).

Table 1. Comparison of State Programs and Policies, Kansas and Competitor States^{1,2}

	Kansas	Colorado	Nebraska	Iowa	Missouri	Oklahoma
State Business Incubator Program	-	-	-	-	\$500,000 annual credit cap ³	\$4.9 million credits used (FY 2016)
State Public Venture Capital Firm	Discontinued in 2015 ⁴	\$51 million (CY 2017)	1.4 million (FY 2017)	\$3.4 million (FY 2014)	\$2.3 million (FY 2019)	\$2.9 million (FY 2020)
Angel Investment Tax Credit	\$6 million annual cap ³	-	-	\$2 million annual cap ³	-	-
State SBIR/STTR Matching Fund	-	-	Awarded \$676,754 in (FY 2017) ⁵	~\$701,754 (CY 2019) ⁶	-	-
Main Street	\$250,000 state budget (FY 2020)	\$100,000 grant (CY 2013)	-	\$2.9 million grant (CY 2019)	No data	\$470,000 state budget (FY 2016)

¹Definitions of programs/policies can be found in Appendix A and B.

²Sources for the table are available on [page 44](#).

³Not all credits issued are used each year.

⁴The Kansas Bioscience Authority was a state-level public venture capital initiative until 2015.

⁵State may award up to \$4 million each year.

⁶From the Iowa Innovation Corporation's annual report figures, where they calculate a 5.7 to 1 ratio of state to federal money, including matching grants and application support, and report \$4 million in federal grants. IIC is in the process of being replaced by the Iowa Bioscience Development Center which was allocated \$4.5 million over the next three years to refocus specifically on bioscience development.

Kansas has no equivalent to some of the entrepreneurship policies that are available in the surrounding states.

Oklahoma and Missouri have programs that offer tax credits to aid “small business incubators” or companies that rent out commercial space or equipment and provide other services to new small businesses (see the call out on page 23). Missouri provides tax credits to taxpayers who donate to Missouri incubators, and caps the total number of tax credits available under this program at \$500,000.

The Oklahoma Small Business Incubators Incentives Act provides income tax credits to business incubators and their tenants, and does not impose a statutory limit on the total number of tax credits that can be approved. The Oklahoma credit is subject to review by the State of Oklahoma Incentive Evaluation Commission, who found in 2018 that the program likely generated at least as much tax revenue as it cost. The commission also found that it was a factor in entrepreneurs’ decisions to locate in Oklahoma. Although the program issued around \$6 million in tax credits in 2014 and 2015, only around \$300,000 worth

of revenue was actually forfeited by the state. The commission also found that the certified business incubators had aided in the creation of more than 3,000 jobs in Oklahoma over the lifetime of the program.

All five of our competitor states have state-level public venture capital firms as well. Colorado’s Venture Capital Authority, Nebraska’s Invest Nebraska, the Iowa Innovation Corporation, and the Missouri Technology Corporation make early stage public-private matching investments. Prior to 2015, Kansas had the Kansas Bioscience Authority, a public venture capital firm focused on investment in the bioscience sector. These public venture capital firms invest in high growth sectors and increase access to capital for innovative start-ups. Because Nebraska recently repealed theirs, Iowa is the only adjacent state that has an Angel Investment Tax Credit. Iowa’s tax credit offers only a 25% tax credit on capital investments as opposed to Kansas’s 50% credit.

Nebraska and Iowa have SBIR/STTR matching funds, which encourage innovation by offering inventors state money to match federal SBIR/STTR grants and help with the application process (see Appendix A).

EXEMPLARY PROGRAM FROM OUR NEIGHBOR

Small Business Incubator Tax Credit

This program certifies businesses that provide space, equipment and other support services to new small businesses in Oklahoma. Certified businesses and tenants are exempt from paying state income tax on related income for 10 years if at least 75% of the tenant's sales are out-of-state, or 5 years otherwise. Oklahoma's 32 certified business incubators supported 119 tenants in 2018. Since the program began in 1988, 503 small businesses have "graduated" or moved to an independent facility.

Why do business with at least 75% out-of-state sales benefit more?

Companies with higher out of state sales are replacing companies outside of their state rather than replacing companies within the state. They are creating net gains in jobs rather than moving jobs from one company to another.

For a full list of Kansas and its competitors' programs and policies, visit Appendix B.

Nebraska, Missouri, Colorado, Iowa, and Oklahoma all have state Main Street Programs that are affiliated with the national Main Street Program. In all of these states except Nebraska, the state Main Street Program gets at least some direct funding from the state legislature.

Several states also have programs that target specific, underrepresented groups of entrepreneurs. Iowa's Targeted Small Business Program focuses on women and minority owned businesses, as well as those owned by individuals with disabilities and service disabled veterans, offering special networking and loan opportunities as well as advising. Oklahoma and Kansas provide certifications for minority and women-owned businesses that may give entrepreneurs a leg up in securing contracts.

There are also differences between how states have evaluated their own entrepreneurship programs and economic development

programs in general. The most consistent evaluation is done by the Oklahoma Incentive Evaluation Commission, which was established to analyze the fiscal and economic impacts of various programs. The Kansas Legislative Division of Post-Audit, when analyzing the overall impact of Kansas's major economic development programs, found that the data collected by the Department of Commerce was insufficient to draw conclusions on certain questions. The fiscal and economic impacts of tax credits, such as the Angel Investment Tax Credit in Kansas and the Small Business Incubators tax credit in Oklahoma, can be particularly difficult to calculate because tax laws can prevent disclosure of which companies received credit incentives and how much they used in total credits. Additionally, many departments self-report statistics, which can lead to problems with data reporting and methodologies.

SUPPORT THAT ACCELERATES NEW BUSINESSES



AUSTIN BARONE

Co-Founder

Just Play Sports Solutions

Source: Just Play Sports Solutions.

Austin Barone is a founding member of Just Play Sports Solutions, established in late 2014. A Division 1 athlete, he also worked in a supporting role for his coaching staff. Just Play streamlines coaches' workflows and provides playbook, scouting, and teaching tools for football, basketball, and lacrosse. While at KU, Barone worked with The Catalyst, the student business accelerator, to develop Just Play, whose clients now include the Dallas Cowboys and the Denver Nuggets, among many others. A huge fan of The Catalyst and the mentoring, technical assistance, workspace, and community it provides, Barone is passionate about the entrepreneurship programs KU offers, encouraging students to take risks while they are at that life stage: "If you don't take that first step you never know how far you'll go. KU Catalyst not only helps you take that first step but helps you with all the steps along the way."



BIOSCIENCE & TECHNOLOGY BUSINESS CENTER

Source: The University of Kansas.

The Bioscience & Technology Business Center at the University of Kansas (BTBC) was founded with the goal of creating, recruiting, growing, and retaining high-tech and life sciences companies in Northeast Kansas. The BTBC system currently houses fifty-two companies that together employ roughly 300 people, with annual combined payroll in excess of \$18M. Of these companies, 11 are startups associated with KU and an additional 21 non-affiliated startups have located in this business incubator.

How can Kansas support its startups and entrepreneurs?

RECOMMENDATIONS FOR KANSAS POLICY MAKERS



“ Kansas previously had programs that were very helpful for small companies trying to stay alive and grow. Unfortunately, most of these programs were discontinued. It would help if there were mechanisms through the State to match federal SBIR/STTR funds, give larger angel tax credits for investors, and help technology entrepreneurs find CEOs with experience in their sector.”

DR. LISA FRIIS

Professor of Mechanical Engineering,
University of Kansas and co-Founder
of Evoke Medical LLC.

Photo source: The University of Kansas.

POLICY & PROGRAM RECOMMENDATIONS

1

Raise awareness and expand the Kansas Angel Investor Tax Credit.

Very few new companies in Kansas actually are certified to receive Angel Investment under this program. Only 39 were listed on the “2019 Qualified Kansas Businesses” list provided by Kansasangels.com. The program also has recently had difficulty reaching its cap of \$6 million in tax credits. In 2018, there was \$4.7 million to spare a week before the deadline. It is possible that the credit qualification is difficult and time consuming for start-ups to apply for. In addition, the maximum amount of money per credit (\$50,000 per year) may be too small to justify the cost of the application. If so, then simplifying and expanding the credit might increase access to capital for entrepreneurs in Kansas.

<https://www.startlandnews.com/2018/08/kansas-angel-tax-credits/>

2

Provide matching funds for SBIR/STTR grant awards. Expand SBIR/STTR funding by providing support for education and consulting for these proposals as well as proof of concept funding.

The SBIR and STTR programs provide federal funds to commercialize scientific research. An SBIR/STTR recipient’s proposal has already been found to have merit by the federal peer review process, so a matching grant program would provide additional funds to projects that have already been vetted. In Nebraska, the SBIR/STTR matching grant program is part of the larger Nebraska Innovation Act, and provides matching funds for SBIR 1 and 2 grants of 65% the federal funds up to \$100,000. The act also has a “Phase 0” program, which provides up to \$5,000 for small businesses planning for an application for a federal SBIR grant. This program, and others like it, encourage invention within the state. A 2016 report by the University of Nebraska-Lincoln found that the Business Innovation Act programs had been a success at promoting entrepreneurship in Nebraska.

<https://opportunity.nebraska.gov/wp-content/uploads/2018/02/2016-Business-Innovation-Act-Economic-Impact-Analysis.pdf>

3

Reconstitute a state venture capital program along the lines of Invest Nebraska or Oklahoma Seed Capital. Both of these states have public/private partnerships that provide a state 1:1 match of private capital.

Access to venture capital is a critical determinant of whether, and where, an innovative new business will develop. The State of Kansas could reconstitute its venture capital program in a way that would ensure the right people are making investment decisions by requiring a 1:1 match of public and private capital. The Invest Nebraska program and the Oklahoma Seed Capital Fund and Technology Commercialization Center both have this stipulation, which helps avoid state involvement in “picking winners” which was a criticism of Kansas’s previous programs.

4

Enhance, develop and fund business incubators throughout the state.

Business incubators give entrepreneurs access to reliable facilities and access to networks that can help their business get off the ground. The Oklahoma Small Business Incubators program gives certified incubator companies and tenants income tax exemptions. The Oklahoma Tax Incentive Commission estimated that the program created more than 3,000 jobs from 1988 to 2017. They also calculated the return on the states investment due to increased tax revenues from incubators’ operations made the program break even or positive, and found that it was an important reason entrepreneurs located in the state.

<https://www.seekcapital.com/blog/best-states-to-start-business/>

<https://iec.ok.gov/sites/g/files/gmc216/f/IECFinalReport2018.pdf>

5

Create policies to attract, educate, and support talent, including programs designed to support and develop entrepreneurs.

This includes CEOs, computer science majors and graduates. Kansas needs professionals willing and able to build new, innovative companies and create high-paying jobs in our state.

6

Collect accurate and detailed data on the applications, awards and use of these programs to promote evaluation of what works.

Improve data and access to data about who uses economic development initiatives, especially tax credits. These programs should be audited regularly. This recommendation is similar to the one that the KSLPA made in its “Kansas Tax Revenues: Reviewing How Other States Inventory and Evaluate Tax Credits and Exemptions” (R-17- 015) report.

<https://www.kslpa.org/wp-content/uploads/2019/07/r-17-015.pdf>

A Call for Further Research.

While Kansas does have some targeted programs to assist women and minority innovators and entrepreneurs, these groups are historically underrepresented and are an untapped source of innovation and economic growth for our state.³ Further research is needed to determine the nature and scale of these potential or existing businesses and how to best support a broader range of entrepreneurs in Kansas.

CONCLUDING THOUGHTS

Entrepreneurship is an important driver of employment opportunities, higher wages, innovation, and increased community viability across the state. From the smallest communities to the metro areas, new and young companies are a vital force for the Kansas economy.

Kansas currently provides a number of policies and programs to support these efforts. However, it's clear we can improve: better data collection, transparency, and evaluation of new and existing programs; better supports for business owners, creators, and CEOs; state-of-the-art education and training for current and future workers; eliminating barriers to entry and creating a culture of innovation in our state and its institutions; and bipartisan, sustained commitment to effective entrepreneurship programs and policies over time are just a few of the ways Kansas can support its entrepreneurs to maintain and increase the health of the Kansas economy now and in the future.

APPENDIX A

POLICY AND PROGRAM DEFINITIONS

SBIR PROGRAM

The Small Business Innovation Research (SBIR) program is a highly competitive program that encourages domestic small businesses to engage in Federal Research/Research and Development (R/R&D) that has the potential for commercialization. Through a competitive awards-based program, SBIR enables small businesses to explore their technological potential and provides the incentive to profit from its commercialization. By including qualified small businesses in the nation's R&D arena, high-tech innovation is stimulated and the United States gains entrepreneurial spirit as it meets its specific research and development needs.

STTR PROGRAM

The Small Business Technology Transfer (STTR) is another program that expands funding opportunities in the federal innovation research and development (R&D) arena. Central to the program is expansion of the public/private sector partnership to include the joint venture opportunities for small businesses and nonprofit research institutions. The unique feature of the STTR program is the requirement for the small business to formally collaborate with a research institution in Phase I and Phase II. STTR's most important role is to bridge the gap between performance of basic science and commercialization of resulting innovations.

STATE BUSINESS INCUBATOR PROGRAM

Some states incentivize business incubators, which are companies that rent out space, equipment, and other services to startups. These startups are intended to get support at the beginning from these incubators, then "graduate" to their own facility later on. Oklahoma provides tax credits to incubator companies as well as their tenant companies. Missouri, however, offers a tax credit to taxpayers who make contributions to certified incubators.

STATE-LEVEL PUBLIC VENTURE CAPITAL FIRMS

All five of Kansas's competitor states have state-level venture capital firms, which invest public money in innovative new companies, typically requiring a 1:1 match from private investment. Kansas had the Kansas Bioscience Authority, a public venture capital firm that was defunded in 2012 and its assets sold off in 2016, and has since been an outlier among our peers.

ANGEL INVESTMENT TAX CREDIT

An Angel Investment Tax Credit gives certified "Angel" investors the opportunity to apply for a tax credit for a certain percentage of their investment in a startup. These investors are wealthy, experienced individuals that meet the SEC definition of an "Accredited Investor." Of Kansas's competitor states, only Iowa also offers an Angel Investment Tax Credit.

SBIR/STTR MATCHING PROGRAM

Thirteen states, including competitor states Nebraska and Iowa, have state SBIR/STTR matching funds. These funds are given to awardees who receive federal SBIR/STTR grants. Some of these programs also offer funds and advice to aid in the application process.

STATE FUNDED MAIN STREET PROGRAM

Main Street America™ is a nationwide organization that works with local governments and businesses to try to promote local entrepreneurship and economic development in cities' and towns' business districts. Some of our competitor states regularly award grants and budget appropriations to their state's Main Street Program.

APPENDIX B

ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT INITIATIVES IN KANSAS AND SURROUNDING STATES

KANSAS

ANGEL INVESTOR TAX CREDIT

Please see page 17 for a discussion of this program.

Iowa also has an Angel Income Tax Credit. Of the two states, Kansas offers the larger percentage of an Angel Investment as tax credit. The Kansas Legislative Post-Audit recognized that the Kansas program is an outlier in a 2010 report and suggested that percentage refunded as tax credit be reduced.⁴

CENTER FOR ENTREPRENEURSHIP TAX CREDIT (DOING BUSINESS AS NETWORK KANSAS)

Please see pages 17-18 for a discussion of this program.

HIGH PERFORMANCE INCENTIVE PROGRAM

This program gives qualified businesses an income tax credit equivalent to 10% of their investment into a qualified business facility. To qualify, a business must either be classified as a manufacturing firm by the NAICS, be predominately marketing to manufacturing firms and government agencies, or be recognized as the headquarters of a national or multinational corporation. The firm must also pay 1.5 times the average wages in its regional

industry and participate in the Kansas Industrial Training (KIT) program, the Kansas Industrial Retraining (KIR) program, or the State of Kansas Investments in Lifelong Learning (SKILL) program.

In a 2013 report, the Kansas Legislative Division of Post-Audit found that the High Performance Incentive Program had issued \$21 million in tax credits resulting in \$310 million in increased investment by participating firms and created or retained around 6900 jobs in 2010.⁵ The report acknowledges, however, that the department of revenue data may not be reliable because companies are not required to report outcome data and self-reported outcome data is not audited. A 2014 LPA report similarly acknowledged the difficulty in finding reliable data about the High Performance Incentive Program but nonetheless concluded that the program has a positive rate of return on investment when compared with an equally costly across-the-board tax cut.⁶

ECONOMIC DEVELOPMENT INITIATIVES FUND (EDIF)

The EDIF fund was created to support economic development initiatives in Kansas. The fund is divided into a capital formation account, a research and development

account, and an economic development endowment account. A Kansas Legislative Post-Audit report from 2019 found that it has consistently failed to allocate the majority of its funding toward economic development. The report found that the state of Kansas did not design the fund to conform to best legislative practices, including: measurable objectives, useful definitions for the purpose of the funds, and clear reporting by Commerce Department officials. Of the \$42.3 million dollars of EDIF funds the state used in 2018, the LPA report found that only \$7.8 million was spent on programs that the LPA found consistent with the legislative intent of the three EDIF accounts.⁷

KANSAS BIOSCIENCE AUTHORITY

Please see page 20 for a discussion of this program.

COLORADO

VENTURE CAPITAL AUTHORITY (VCA)

The Colorado Legislature created the Colorado Venture Capital Authority in 2004, allocating \$50 million in tax credits for the VCA to sell to raise initial capital. Since then, the Colorado VCA has been operating independently, but is required to invest only in businesses that meet certain criteria. The program funds early and seed stage companies located in Colorado that do not engage in professional services such as banking and healthcare, real estate development, insurance, oil and gas exploration, or direct gambling activities.⁸ This program is required to put 50% of its

investment into statewide businesses, 25% into businesses in rural areas and another 25% into distressed areas. In 2017, the Colorado Venture Capital Authority invested over \$51 million in Colorado businesses.⁹

ADVANCED INDUSTRIES TAX CREDIT

The Advanced Industries Tax Credit allows investors in qualified advanced industries a 30% income tax credit if the business is in a designated Colorado enterprise zone or 25% if not. The maximum amount of tax credit an investor may claim is \$50,000 per investment. This program was designed to make capital access easier for early stage companies in the industries of Advanced Manufacturing, Aerospace, Bioscience, Electronics, Energy and Natural Resources, Infrastructure Engineering, and Information Technology. The company must also have annual revenue under \$5 million and must have been operating for less than 5 years. Total tax credits available are capped at \$750,000. This program is scheduled to run from 2014 to 2022.¹⁰

NEBRASKA

NEBRASKA SMALL BUSINESS INNOVATION RESEARCH / SMALL BUSINESS TECH TRANSFER (SBIR/STTR) GRANT PROGRAM

The Nebraska Business Innovation Act provides matching funds to businesses that receive federal SBIR awards and provides matching loans for academic research and development and provides funding for microloan delivery organizations. A 2018 study by the director of the University of Nebraska Bureau of Business Research

found that, of their sample of 150 participating businesses, the combined programs had caused the hiring of 630 new employees, with a combined annual salary of \$32.6 million. The study concluded that these programs were meeting the legislature's goal of creating high paying jobs in Nebraska.¹¹

NEBRASKA SEED INVESTMENT PROGRAM

The Nebraska Seed Investment Program is the largest source of funds created through the Business Innovation Act, and supports innovative new businesses with 1:1 matching investments of up to \$500,000 through a private partner. These investments must be used for the commercialization of a product or process and the recipient company must operate in Nebraska. In the 2017-2018 Fiscal Year, the program invested \$1.4 million in seven firms.¹² Between 2014 and 2018, the program invested \$9.1 million in 34 firms.

NEBRASKA ADVANTAGE MICROENTERPRISE TAX CREDIT

This program awards businesses with five or fewer full time employees a 20% income tax credit for additional compensation and investment spending. The program was originally envisioned to aid microbusinesses in rural areas. In a 2018 study, the legislative performance audit committee found that, while the tax credit originally did largely benefit rural businesses, since 2012 more urban areas have been receiving the credits. The report also pointed out that, because there are no wage or job creation requirements, there is no way to reasonably measure the effect of the credits on average wages and job creation.

¹³ The report concludes that this program may need to be amended in order to

understand the program's outcomes and whether or not the credits are going to the types of businesses that the legislature intended them for.

IOWA

ANGEL INVESTOR TAX CREDIT

The Iowa Angel Investor Tax Credit gives certified angel investors a tax credit equal to 25% of the amount invested up to \$100,000 in individual tax credits per household and \$500,000 per business. The program as a whole has a \$2 million total tax credit cap. For an investment to qualify, the business receiving the investment must be headquartered in Iowa, at least 50% of its employees must be Iowans, and 50% of its payroll must go to Iowans. The business cannot have been operating for 6 years or more, must have a net worth under \$10 million, and cannot be primarily engaged in retail sales, real estate, or health care services or other services requiring a professional license.¹⁴ A commission to report on Iowa tax incentives is currently convening, and so up-to-date data on this and other incentives should be available soon.

IOWA SMALL BUSINESS INNOVATION RESEARCH AND TECHNOLOGY TRANSFER OUTREACH PROGRAM (SBIR/STTR) OUTREACH PROGRAMS

The Iowa Innovation Corporation's SBIR/STTR Outreach Programs provides matching funds and application assistance to innovative Iowa businesses seeking federal grants through the Small Business Administration's SBIR/STTR programs. The Iowa program provides financial assistance

up to a \$25,000 match for Phase I awards and then another \$25,000 for submission of a subsequent Phase II application. Through this program, the Iowa Innovation Corporation provided assistance to projects that received a total of \$4 million in federal grant money, resulting in a 1:5.7 dollar ratio of state to federal investment.

DEMONSTRATION FUND

The Iowa Demonstration Fund provides Iowa entrepreneurs and small businesses with funding via loans and royalty agreements. The program requires that the recipient company have fewer than 500 employees, an innovative technology solution, and a product ready for market except in cases of bioscience and medical device technology requiring regulatory approval. In a 2013 report, Econsult Solutions found that the average annual return on the state of Iowa's investment was around 16% between 2007 and 2013.¹⁵ The authors point out that this figure includes only direct return on investment, and not tax revenues. Since its launch, the demonstration fund has invested in 110 firms, and made investments totaling approximately \$13 million. The report also noted that of those 110 firms, 101 were still operating at the time of writing in industries such as medical device manufacturing, animal medicine and software development.

INNOVATION ACCELERATION FUND

The Iowa Innovation Acceleration Fund awards seed capital funds to match private investments. The program targets Iowa companies developing innovative technology in the advanced manufacturing, bioscience, and information technology

industries.¹⁶ The awards are divided into two categories based on what stage the recipient company's management and product development is in. In the earlier "Propel" stage, the fund awards a maximum of \$300,000 to the recipient company, while the more advanced innovation expansion stage awards are capped at \$500,000. There was no readily available audit or detailed report on the Iowa Innovation Acceleration Fund.

PROOF OF COMMERCIAL RELEVANCE PROGRAM

The Proof of Commercial Relevance Program is designed to aid approved companies that have demonstrated the viability of their proposed product and need help commercializing and marketing it. The program awards recipients private/public matched low interest loans. Recipient companies must have fewer than 500 employees and be engaged in the bioscience, manufacturing, or information technology industries.¹⁷

TARGETED SMALL BUSINESS PROGRAM

This program provides low-interest loans to help start or support small businesses owned by women, members of minority groups, people with disabilities and service-disabled veterans. For applicants looking to start a small business, there is a proof of concept requirement. The program loaned out \$384,224 in 2018 in 23 loans. LiftFund, a Texas-based community development financial institution, underwrites these loans. The Iowa Economic Development Authority holds \$1.8 million available for this fund for the next two years, and loan repayments will further increase the amount of capital available to the program.¹⁸

MISSOURI

MISSOURI SMALL BUSINESS INCUBATOR TAX CREDIT

The Missouri Small Business Incubator Tax Credit provides a tax credit in the amount of 50% of their contribution to taxpayers contributing to certified incubators. The maximum number of tax credits that can be issued in a calendar year is \$500,000. The Missouri Department of Economic Development certifies incubators based on their projected economic impact, compatibility with local economic development plans, and location to ensure a wide geographic distribution of new business growth. In their 2018 annual report, the Missouri Department of Economic Development notes that between the program's inception in 1990 and November 30, 2018, the DED issued \$3.9 million in tax credits, raising approximately \$7.8 million in contributions to incubators around the state.

MISSOURI TECHNOLOGY CORPORATION

The Missouri Technology Corporation (MTC) provides early and seed-stage investment to innovative Missouri companies through their Missouri TechLaunch and Seed Capital Co-Investment programs. These programs require a 1:1 private-public match. The Missouri TechLaunch program provides up to \$100,000 in pre-seed financing to approved new businesses in the animal health, plant science, biomedical science, applied engineering and defense/homeland security sectors. In 2018, the MTC invested \$8.08 million through the two programs, and were appropriated \$2.25 million in state funding for the 2019 fiscal year. The MTC also provides Missouri

Building Entrepreneurial Capacity (MOBEC) grants to non-profit research institutions and entrepreneurial support organizations in Missouri.

MISSOURI ACTION FUND LOAN PROGRAM AND GROW MISSOURI LOAN PROGRAM

This program provides loans to businesses located within Missouri and owned by Missourians up to \$750,000 per project or \$25,000 per job created. Companies that are in non-metropolitan areas and ones that pay above the county median wage are prioritized. The Grow Missouri Loan Program offers loans at a fixed 2% interest rate to Missouri companies looking to expand. The Grow Missouri Program stipulates that recipients must demonstrate the ability to create at least 1 new job per \$75,000 raised. Like some Kansas programs, the Missouri Action Fund and Grow Missouri Loan Programs' effectiveness can be measured in job creation and the companies receiving this program are meant to target job creation in economically distressed areas and create jobs that pay above the county median wage.

SMALL BUSINESS TAX CREDIT

The Missouri Small Business Tax Credit provides a tax credit to those who donate to authorized Missouri organizations. The tax credit amount is 50% of the amount donated, and the total tax credits that can be issued in a single year is \$500,000. Like the Kansas Center for Entrepreneurship (NetWork Kansas) Tax Credit, this policy

is meant to help leverage private funds for entrepreneurship organizations. This credit applies to money donated to several Missouri groups, including the Missouri Innovation Center, a non-profit group that fosters entrepreneurship in Missouri by research facilities to Missouri entrepreneurs. The center also oversees the Life Science Business Incubator program at the University of Missouri.

MISSOURI LINKED DEPOSIT LOAN PROGRAM (MISSOURI FIRST)

Through the Missouri Linked Deposit Loan Program, the state partners with local financial institutions to provide low-interest loans, mainly to small businesses. According to the Missouri State Treasurer's annual report, the linked deposit program provided small business loans totaling \$160 million in 2016.¹⁹ To qualify for this program, a small business must have fewer than 100 employees and be headquartered in Missouri. The program emphasizes loans to rural and distressed parts of the state and works to allocate loans evenly throughout the state. The Missouri State Treasurer's website states that total deposits increased from \$200 million to \$600 million, approaching the statutory cap of \$720 million. The annual reports and notes on the program after 2016, however, are not available.

MISSOURI WORKS PROGRAM

The Missouri Works Program offers either state tax credits or the retention of state withholding tax by eligible businesses moving to or expanding in Missouri.²⁰ The Missouri Works Program uses retention of state withholding tax to attract businesses that can add or protect jobs in Missouri. The

Missouri Works Program, however, allows eligible businesses to retain all of the state withholding taxes on new jobs and requires applicant firms to pay different percentages of their county average wage depending on where the business is located in the state. For the 2020 fiscal year, the tax credit benefits cap for the program was \$116 million, and authorizes around \$22.5 million on average in withholding tax entitlements for each of the fiscal years through 2025.²¹ In contrast, in 2018 Kansas's PEAK program allowed participating companies to retain a total of \$43.5 million in withholding tax entitlements from newly created jobs.²²

A 2017 report by the Governor's Committee on Simple, Low and Fair Taxes found that the Missouri Works program was worth the investment, because it awards tax credits based on the lowest amount to secure the recipients' commitment to job growth and because tax credits are awarded only after the recipient meets the program's job creation, wage, and health insurance coverage goals.²³ They write that, in 2016, for every dollar spent on the program, there was a \$1.95 direct and indirect benefit to the state. The Governor's Committee recommended, however, that the program switch to providing a discretionary amount of withholding in order to allocate more benefits to companies that are more hesitant to locate or expand in Missouri.

OKLAHOMA

SMALL BUSINESS INCUBATOR PROGRAM

This program certifies businesses that provide space, equipment and other support services to new small businesses in Oklahoma. Certified businesses are then made exempt from paying Oklahoma income tax on income generated from their support services for 10 years if the tenant small business generates at least 75% of its sales from out-of-state buyers. If not, the certified business incubator is exempt from taxes on the first 5 years of such income. The program's goal is for these new small businesses to be able to support themselves in two to three years and "graduate" to status as an independent company. The state had 32 certified business incubators at the end of 2018, leasing space to 119 young companies. Since the program began in 1988, there have been 979 tenant small businesses and 503 small businesses have "graduated" or moved to an independent facility.²⁴

OKLAHOMA SEED CAPITAL FUND

The Oklahoma Seed Capital Fund targets high-growth industries, providing early-stage equity investment to Oklahoma businesses. Typically, these investments are made with a 1:1 match from private sources. The fund is managed by i2e, a private non-profit that invests in innovative new companies. The State of Oklahoma Incentive Evaluation Commission reported that, between 2008 and 2018, the Oklahoma Seed Capital Fund invested \$22.9 million in 37 companies. Of these, 24 are still active in Oklahoma, eight have gone out of business, one has relocated and four have been acquired.

Incentive Evaluation Commission report:
<https://iec.ok.gov/sites/g/files/gmc216/f/OKSeedCapitalFund09302019Draft.pdf>

WOMEN AND MINORITY BUSINESS CERTIFICATIONS PROGRAM

This program provides certifications to minority-owned and women-owned businesses in Oklahoma. The certification helps business owners network, gives them an edge when competing for contracts, and makes it easier for clients to report dollars spent at women-owned and minority-owned businesses. Unlike the Iowa Targeted Small Business Program, Oklahoma does not provide targeted support for these businesses.²⁵

NEW PRODUCTS DEVELOPMENT TAX EXEMPTION

This program allows manufacturers of new products to exclude from their state income taxes 65% of the cost of depreciable property used in manufacturing those new products. According to a 2018 report by the State of Oklahoma Incentive Evaluation Commission, this benefit is primarily awarded to only two companies, and results in a negative return on investment for state money. The report notes that comparable programs in other states target certain industries or specifically target small businesses, and suggests that Oklahoma's program may be too broad-based. The report also cites a relative decrease in utility patents in Oklahoma since the start of the program.²⁶

SMALL EMPLOYERS QUALITY JOBS PROGRAM

This program makes cash wage rebates to Oklahoma small businesses that provide healthcare benefits and pay their employees over 110% of the average county wage where the business operates. The cash payment is equal to 5% of the payroll of new hires, paid out quarterly for up to 7 years. The program targets certain basic industries deemed to have growth potential in the state. Companies are required to generate 35% of their sales from out of state for the first two years and 60% thereafter.

As of 2019, the program has paid \$9.2 million in wage rebates to 117 companies.²⁷

A 2017 report by the Oklahoma Incentive Evaluation Commission found that the program was a net benefit for the state, calculating that each job created costs approximately \$6,700 over the life of the program. The commission recommended centralized data keeping, however, and revising the list of targeted industries.

Oklahoma has similar programs for larger firms such as the Quality Jobs Program and the 21st Century Quality Jobs Program.

APPENDIX C

METHODS

Charts and data used on pages 9–15 were provided by SourceLink. To understand how entrepreneurs fit into the Kansas economy, SourceLink performed an exploratory analysis with one of the most comprehensive employment datasets in existence: The Quarterly Census of Employment and Wages (QCEW). The QCEW contains individual records of wages paid for Unemployment Insurance (UI) records. This data has been useful in previous attempts to understand labor markets (Spletzer, 2000; Ferree and Smith, 2013; Dolfman et al. 2007; Salamon and Sokolowski, 2005).

State laws require employers to report quarterly UI contributions for all wages paid to State Employment Security Agencies (SESA) for the Unemployment Compensation for Federal Employees (UCFE) program. Benefits of the QCEW include an ability to accurately identify firm birth and death, track longitudinal employment levels and distinguish between industries.

Firm-level job counts are the number of wage records for a given UI number in each quarter. The number of jobs includes any employment—full-time, part-time and multiple jobs—but does not include those who are self-employed. This report draws from raw QCEW data, and the statistical methods used for calculating total employment differs from the methods used for QCEW data published by the U.S. Bureau of Labor Statistics. The bureau uses a six-step statistical test SourceLink is unable to replicate.

DEFINITION OF A STARTUP

A new startup (firm) is identified with the first appearance of establishment records in the employer file with no predecessor record. In this method, new startups are new establishments.

Some establishments demonstrate seasonal activity when they report employment in one quarter but not in following quarters, and then report again in later quarters. To account for intermittent activity in the identification of newness, the report identifies birth using the full dataset and then subsets for establishments born since the year 2010, effectively preventing any firms that left the records before the available records and re-entered from being misidentified as new.

STATISTICS DEFINITIONS

- Number of startups for each year counts the number of first-time observations of establishments with fewer than 20 employees in each quarter for each year.
- The number of new jobs from startups is the sum of Quarter 4 jobs created by startups born that year.
- Average wages are total wages reported by each establishment in the employer file divided by the total employment from the state as a whole.
- High tech four-digit NAICS sources were taken from this report:
https://www.census.gov/eos/www/naics/2017NAICS/2017_NAICS_Manual.pdf

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Oklahoma Center for the Advancement of Science and Technology

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ANGEL INVESTMENT TAX CREDIT

Kansas AITC

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JANUARY 2020

Institute for Policy & Social Research
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