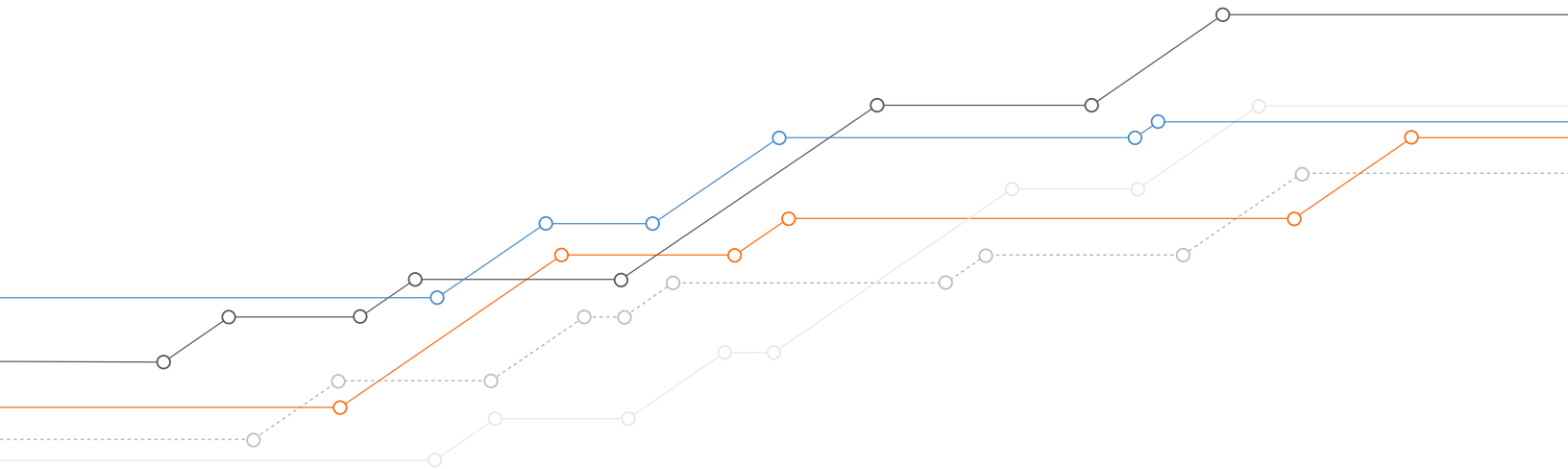




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# STATE REPORT ON **EARLY-STAGE ENTREPRENEURSHIP** IN THE **UNITED STATES: 2021**

APRIL 2022



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## **EARLY-STAGE ENTREPRENEURSHIP IN THE UNITED STATES**

This report tracks four indicators capturing early-stage entrepreneurship activity across all states and Washington, D.C.:

**Rate of new entrepreneurs**

**Opportunity share of new entrepreneurs**

**Startup early job creation**

**Startup early survival rate**

These indicators collectively inform the Kauffman Early-Stage Entrepreneurship (KESE) Index, a summary index of entrepreneurial activity.

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## Executive Summary

The Kauffman Indicators of Early-Stage Entrepreneurship is a set of measures that represents new business creation in the United States, integrating several high-quality, timely sources of information on early-stage entrepreneurship.

This report presents four indicators tracking early-stage entrepreneurship for the years 1996–2021: **rate of new entrepreneurs** reflects the number of new entrepreneurs in a given month, **opportunity share of new entrepreneurs** is the percentage of new entrepreneurs who created their businesses out of opportunity instead of necessity, **startup early job creation** is the total number of jobs created by startups per capita, and **startup early survival rate** is the one-year average survival rate for new firms. State level trends are reported for all four indicators.

- The **rate of new entrepreneurs** in 2021 ranged from a low of 0.17 percent in West Virginia to a high of 0.61 percent in Florida. The median for states in 2021 was 0.31 percent, reflecting 310 out of every 100,000 adults.
- The **opportunity share of new entrepreneurs** ranged from a low of 65.1 percent in Michigan to a high of 93.1 percent in Arkansas, with a median of 79.1 percent.
- **Startup early job creation** in Vermont was 2.5 jobs per 1,000 people, compared with 6.5 jobs per 1,000 people in Florida, and a median of 4.1.
- **Startup early survival rate** ranged from 73.4 percent in Hawaii to 89.2 percent in Washington, with a median of 81.0 percent.
- The overall **KESE Index** — an equally-weighted composite of the four indicators — ranged from -6.0 in Rhode Island to 8.8 in Florida, with a median of 0.6.

## Indicators of Early-Stage Entrepreneurship: State Trends

The Kauffman Indicators of Early-Stage Entrepreneurship captures early-stage entrepreneurial activity broadly defined and includes four key early-stage measures of entrepreneurial activity:

1. **Rate of new entrepreneurs:** the broadest measure possible for business creation by population.
2. **Opportunity share of new entrepreneurs:** the percentage of new entrepreneurs who created a business out of choice instead of necessity.
3. **Startup early job creation:** the number of jobs created in the first year of business per capita.
4. **Startup early survival rate:** the rate of survival in the first year of business.

A summary index of entrepreneurship activity, the KESE Index, is also created from these four indicators. The KESE Index presents a snapshot of early-stage entrepreneurial activity and evenly weights the four indicators.

The purpose of these indicators is to provide a guidepost for early-stage entrepreneurial activity, so that interested individuals and organizations can better understand trends in different aspects of new business creation. No single indicator can provide a complete picture of all types of entrepreneurial activity at any given time, and users should consider the unique context of a state, the regional economy and labor market, and other factors in interpreting indicators. A major shift in one indicator, or a consistent level of another indicator over time, can be useful in raising questions among entrepreneurship supporters.

The four early-stage entrepreneurship indicators and the summary index<sup>1</sup> are reported at the state level. The first two indicators reflect early entrepreneurial activity among the population, and the next two capture first-year business trends.

Each of the indicators is based on either a nationally representative sample of more than a half-million observations each year or the universe of employer businesses in the United States (roughly 5 million businesses), using datasets of the U.S. Census Bureau and Bureau of Labor Statistics. The indicators track changes in entrepreneurial activity over time and across states. Similar to many measures derived from large longitudinal datasets, the indicators are limited by sampling, interpretation, and reporting constraints.<sup>2</sup>

1. See Fairlie and Desai (2021) for more details on the construction of the index.

2. Some estimates may change over time if the underlying data sources are updated.

## INDICATORS

**1. RATE OF NEW ENTREPRENEURS**

The rate of new entrepreneurs provides a broad measure of entrepreneurship, capturing all new business owners, regardless of business size or origin. As such, it includes businesses of all types, regardless of their growth potential or the intentions of their owners. It captures all new business owners, including those who own incorporated or unincorporated businesses, and those who are employers or non-employers.<sup>3</sup>

The rate of new entrepreneurs captures the percentage of the adult, non-business owner population that starts a business each month. New business owners are defined here as those individuals who worked an average of 15 or more hours per week in their businesses in the preceding month.

*Source: Author calculation using microdata from the Current Population Survey (CPS), a monthly survey of the U.S. Bureau of the Census and Bureau of Labor Statistics.*

**2. OPPORTUNITY SHARE OF NEW ENTREPRENEURS**

The opportunity share of new entrepreneurs distinguishes between individuals who are “opportunity entrepreneurs” – including those coming out of work, school, or another labor market status – and individuals who are “necessity entrepreneurs” due to unemployment.<sup>4</sup> The opportunity share of new entrepreneurs reflects the percent of the total number of new entrepreneurs who were not unemployed as they started the new business.

*Source: Author calculation using microdata from the Current Population Survey (CPS), a monthly survey of the U.S. Bureau of the Census and Bureau of Labor Statistics.*

**3. STARTUP EARLY JOB CREATION**

Startup early job creation captures the early employment of a cohort of startup businesses in their first year. It is an annual measure of the number of total jobs that are created by startups in their first year, and it is normalized by the population. As a result, it reflects total employment created by an average new employer firm in its first year for every 1,000 people. This measure represents the job creation power of a typical startup in the first year of its operation.<sup>5</sup>

*Source: Startup data come from Business Employment Dynamics (BED), a database of the Bureau of Labor Statistics; population estimates come from the U.S. Census Bureau.*

**4. STARTUP EARLY SURVIVAL RATE**

Startup early survival rate reflects early-stage business performance among startups within their first year. It measures the percentage of new employer establishments that are still active after one year of operation.<sup>6</sup> This indicator is an annual measure of immediate and not long-term survival.

*Source: Business Employment Dynamics (BED), a database of the Bureau of Labor Statistics.*

**KAUFFMAN EARLY-STAGE ENTREPRENEURSHIP (KESE) INDEX**

The KESE Index is a summary index that reflects early-stage entrepreneurial activity, broadly defined. It is an equally weighted index of the four indicators of early-stage entrepreneurship activity that has a mean of zero, and it is normalized based on the first two decades of available data (1996-2015).

The KESE Index is a composite of the four indicators. In some cases, therefore, an index score may be driven by one very high or low indicator. As such, for more specific insights, we recommend that users focus primarily on each individual indicator and less on the overall composite score.<sup>7</sup>

3. Most self-employed business owners are non-employers.

4. See Fairlie and Fossen (2017). It is important to note that although the motivations for starting businesses can differ (and can be in the context of weak economic conditions and high unemployment rates), necessity businesses could eventually become very successful.

5. The measure does not directly reflect long-term job creation, compensation, longevity of a job, or job and industry characteristics that may influence job trends in startups.

6. This indicator measures the early survival rates of new establishments rather than new firms. New establishments can be generated from existing businesses. Historically, the establishment survival rate has been very similar to the firm survival rate.

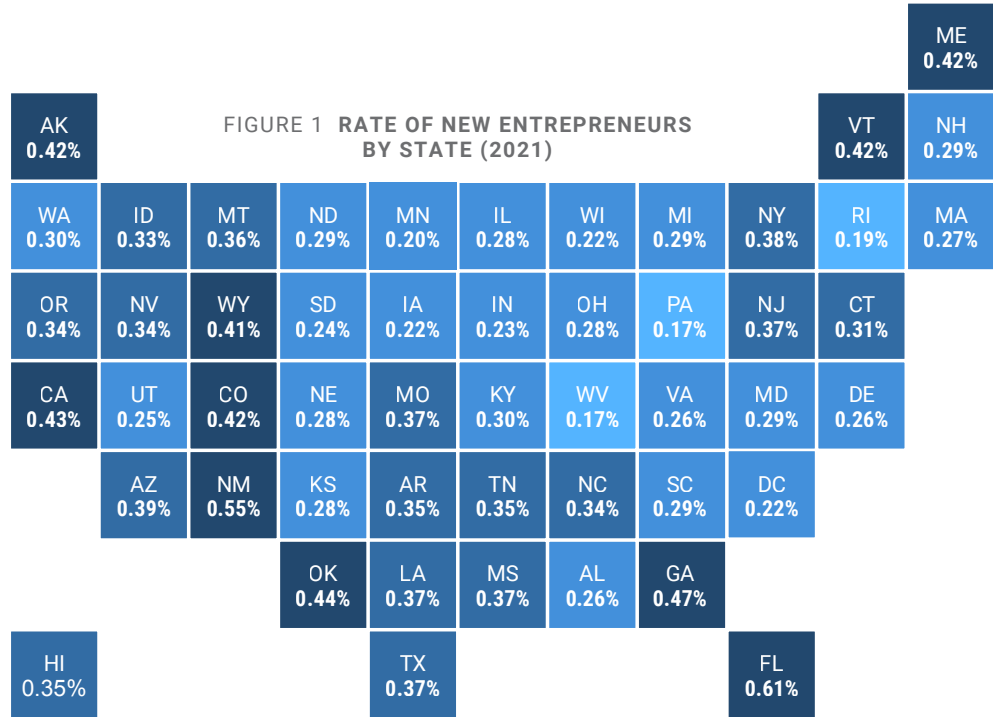
7. The KESE Index is normalized using Z-scores for each variable for the first two years of available data (1996-2015) to fix the measure over time and capture variation over essentially two business cycles. Over this period, the index is normalized to have a mean of zero and a standard deviation of one.



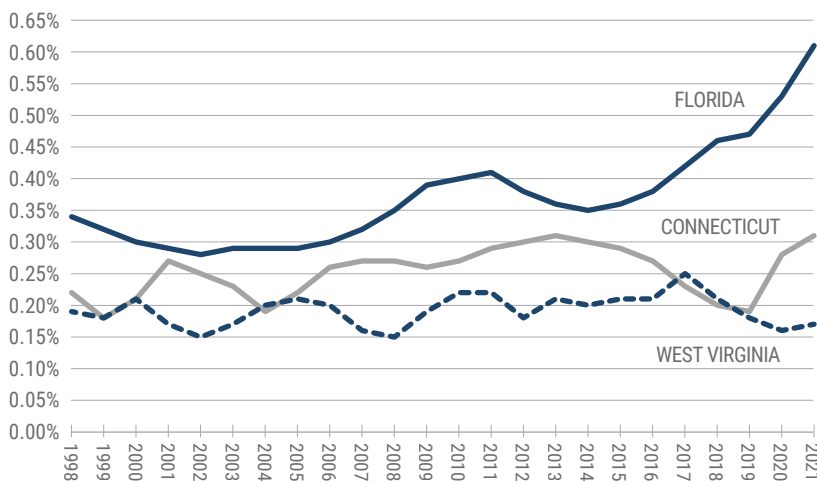
The **rate of new entrepreneurs** captures the percentage of the adult, non-business owner population that starts a business each month. This indicator captures all new business owners, including those who own incorporated or unincorporated businesses, and those who are employers or non-employers.<sup>9</sup>

## STATE TRENDS IN THE RATE OF NEW ENTREPRENEURS

The rate of new entrepreneurs reflects how many adults start a business, on average each month, in a year. In 2021, the rate of new entrepreneurs ranged from 0.17 percent in West Virginia to 0.61 percent in Florida, with a median rate of new entrepreneurs of 0.31 percent. Figure 1 below presents the rate of new entrepreneurs for all 50 states and Washington, D.C. in 2021.<sup>8</sup>



**FIGURE 2 RATE OF NEW ENTREPRENEURS (1998–2021)**  
(2021 LOWEST, HIGHEST, AND MEDIAN STATES, ACROSS ALL YEARS)



The rate of new entrepreneurs in a state can vary substantially over time. Figure 2 displays the rate of new entrepreneurs over time for the median state (Connecticut) and the states with the highest (Florida) and lowest (West Virginia) levels in 2021.

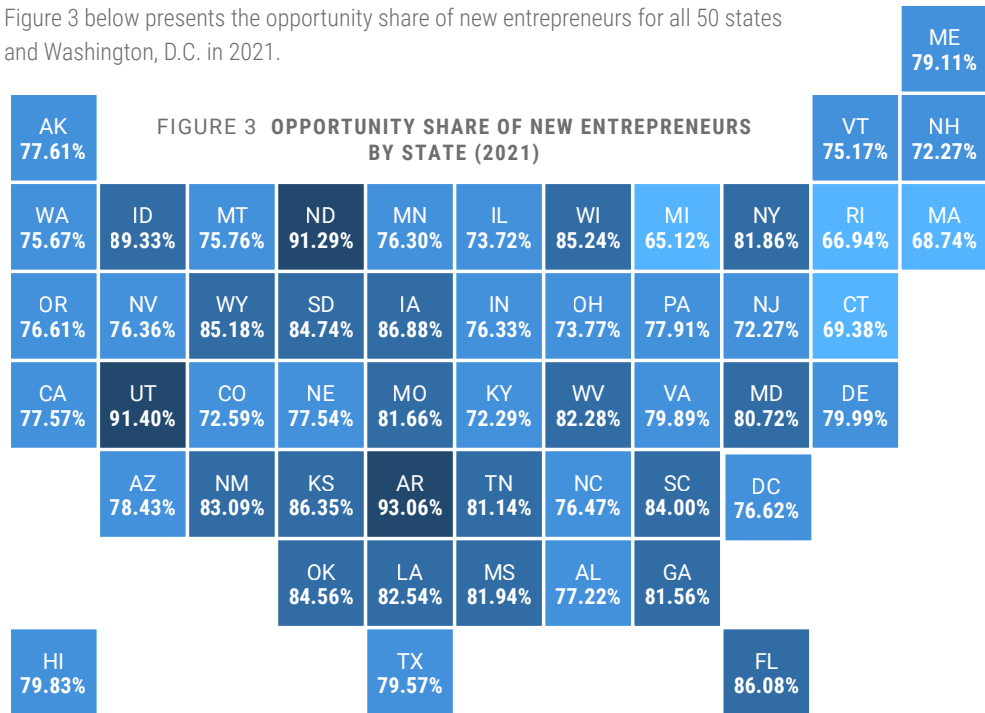
8. Estimates of annual business creation rates would be approximately six to eight times higher. They are not twelve times higher than monthly rates because an individual could start and exit the business multiple times in the same year. See Fairlie and Desai (2021).  
9. All observations with allocated labor force status, class of worker, and hours worked variables are excluded.

The rate of new entrepreneurs includes entrepreneurs and businesses of all types. It can be useful to distinguish between individuals who are “opportunity entrepreneurs,” including those coming out of wage and salary work, school, or other labor market status, and individuals who are “necessity entrepreneurs,” due to unemployment.<sup>10</sup> This distinction offers some insight into the influence of economic conditions on overall business creation. The opportunity share of new entrepreneurs reflects the percent of the total number of new entrepreneurs who were not unemployed and not looking for a job as they started the new business.

## STATE TRENDS IN THE OPPORTUNITY SHARE OF NEW ENTREPRENEURS

The opportunity share of new entrepreneurs captures individuals who left other economic and educational activities to start a business, as opposed to leaving unemployment to start a business. The opportunity share ranged from 65.1 percent in Michigan to 93.1 percent in Arkansas, with a median of 79.1 percent in Maine.

Figure 3 below presents the opportunity share of new entrepreneurs for all 50 states and Washington, D.C. in 2021.



**FIGURE 4 OPPORTUNITY SHARE OF NEW ENTREPRENEURS (1998–2021)**  
(2021 LOWEST, HIGHEST, AND MEDIAN STATES, ACROSS ALL YEARS)

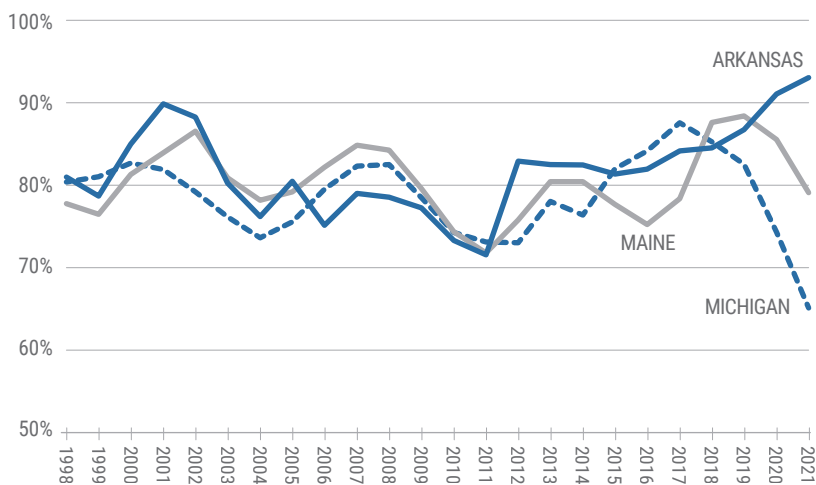


Figure 4 displays the opportunity share for the highest, lowest, and median states over time.

10. See Fairlie and Fossen (2017).



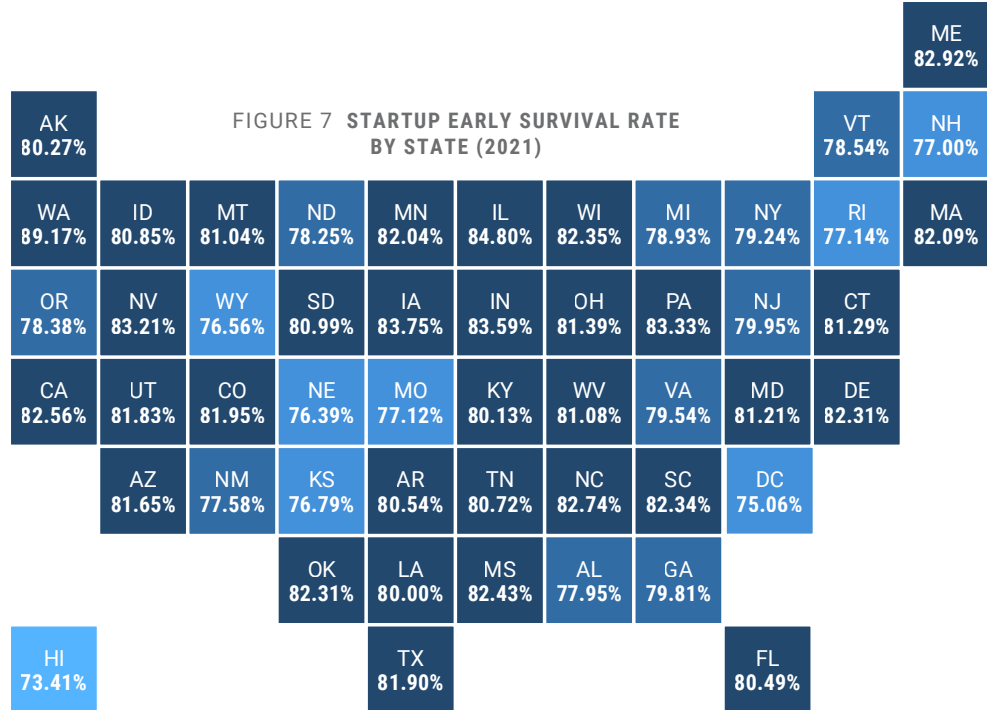




The **startup early survival rate**, an early-stage indicator of business performance, measures the percentage of new employer establishments that are still active after one year of operation.

## STATE TRENDS IN STARTUP EARLY SURVIVAL RATE

The startup early survival rate reflects the share of startups that are still operating one year later. In 2021, this ranged from 73.4 percent in Hawaii to 89.2 percent in Washington, with a median of 81.0 percent in South Dakota. Figure 7 presents the variation in startup early survival rate for all 50 states and Washington, D.C.



**FIGURE 8 STARTUP EARLY SURVIVAL RATE (1996–2021)**  
(2021 LOWEST, HIGHEST, AND MEDIAN STATES, ACROSS ALL YEARS)

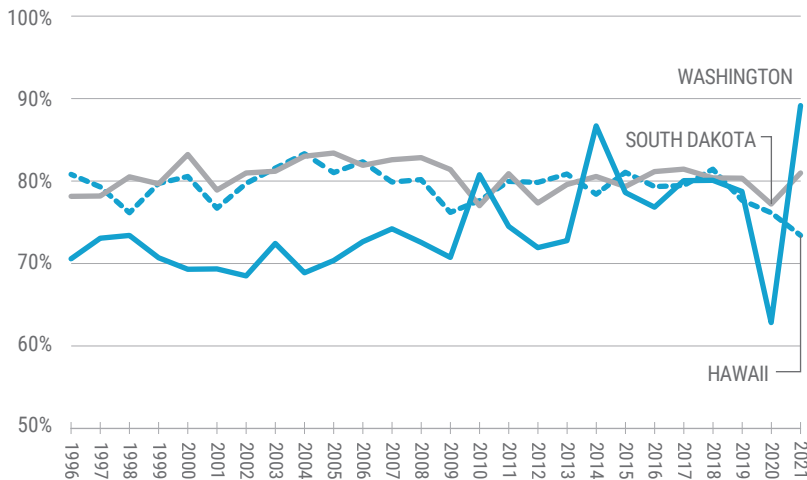


Figure 8 displays startup early survival rates for the highest, lowest, and median states over time.



Using the four key indicators, we create the **KESE Index**, an equally weighted index of the four normalized indicators of entrepreneurship activity:

- 1) Rate of new entrepreneurs
- 2) Opportunity share of new entrepreneurs
- 3) Startup early job creation
- 4) Startup early survival rate

For interactive versions of all maps, please see [www.kauffman.org/indicators](http://www.kauffman.org/indicators)

## KAUFFMAN EARLY-STAGE ENTREPRENEURSHIP (KESE) INDEX

The KESE Index score for 2021 for all 50 states and Washington, D.C. is shown in Figure 9. Index scores ranged from -6.0 (Rhode Island) to 8.8 (Florida), with a median of 0.6 (North Dakota). The index is pegged to 0 using the national average over the two-decade period from 1996 to 2005.

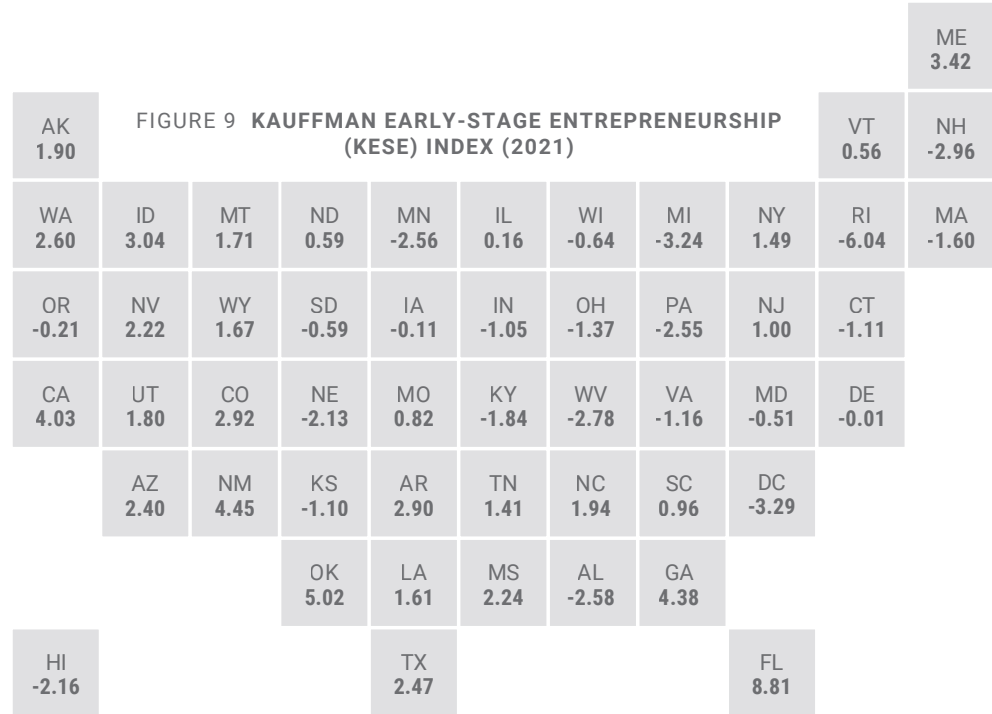
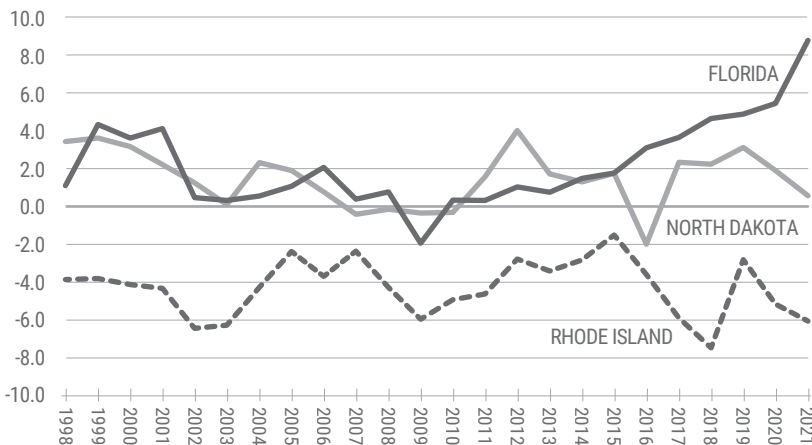


FIGURE 10 KAUFFMAN EARLY-STAGE ENTREPRENEURSHIP (KESE) INDEX (1998–2021)  
(2021 LOWEST, HIGHEST, AND MEDIAN STATES, ACROSS ALL YEARS)



Source: Calculated from CPS and BED data

Figure 10 displays KESE indices for the highest, lowest, and median states over time.

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# APPENDIX

TABLE 1 | EARLY-STAGE ENTREPRENEURSHIP INDICATORS AND KESE INDEX FOR ALL STATES AND DISTRICT OF COLUMBIA (2021)

STATE	RATE OF NEW ENTREPRENEURS	OPPORTUNITY SHARE OF NEW ENTREPRENEURS	STARTUP EARLY JOB CREATION	STARTUP EARLY SURVIVAL RATE	KAUFFMAN EARLY-STAGE ENTREPRENEURSHIP (KESE) INDEX
	Percent of adults becoming entrepreneurs in a given month, year average	Percent of entrepreneurs driven by opportunity	Jobs created by startups per 1,000 people	Percent of firms surviving one year after founding	Equally weighted average of four indicators
United States	0.36%	80.9%	4.7	81.7%	2.2
Alabama	0.26%	77.2%	3.5	77.9%	-2.6
Alaska	0.42%	77.6%	3.6	80.3%	1.9
Arizona	0.39%	78.4%	4.7	81.7%	2.4
Arkansas	0.35%	93.1%	3.9	80.5%	2.9
California	0.43%	77.6%	5.7	82.6%	4.0
Colorado	0.42%	72.6%	6.1	81.9%	2.9
Connecticut	0.31%	69.4%	4.0	81.3%	-1.1
Delaware	0.26%	80.0%	4.7	82.3%	0.0
District of Columbia	0.22%	76.6%	6.5	75.1%	-3.3
Florida	0.61%	86.1%	6.5	80.5%	8.8
Georgia	0.47%	81.6%	5.7	79.8%	4.4
Hawaii	0.35%	79.8%	3.0	73.4%	-2.2
Idaho	0.33%	89.3%	6.1	80.8%	3.0
Illinois	0.27%	73.7%	4.3	84.8%	0.2
Indiana	0.23%	76.3%	3.8	83.6%	-1.0
Iowa	0.22%	86.9%	2.8	83.8%	-0.1
Kansas	0.28%	86.3%	3.9	76.8%	-1.1
Kentucky	0.29%	72.3%	3.2	80.1%	-1.8
Louisiana	0.37%	82.5%	4.1	80.0%	1.6
Maine	0.42%	79.1%	4.3	82.9%	3.4
Maryland	0.29%	80.7%	2.7	81.2%	-0.5
Massachusetts	0.27%	68.7%	4.5	82.1%	-1.6
Michigan	0.29%	65.1%	3.6	78.9%	-3.2
Minnesota	0.20%	76.3%	3.4	82.0%	-2.6
Mississippi	0.37%	81.9%	3.4	82.4%	2.2

TABLE 1 | EARLY-STAGE ENTREPRENEURSHIP INDICATORS AND KESE INDEX FOR ALL STATES AND DISTRICT OF COLUMBIA (2021)

STATE	RATE OF NEW ENTREPRENEURS	OPPORTUNITY SHARE OF NEW ENTREPRENEURS	STARTUP EARLY JOB CREATION	STARTUP EARLY SURVIVAL RATE	KAUFFMAN EARLY-STAGE ENTREPRENEURSHIP (KESE) INDEX
	Percent of adults becoming entrepreneurs in a given month, year average	Percent of entrepreneurs driven by opportunity	Jobs created by startups per 1,000 people	Percent of firms surviving one year after founding	Equally weighted average of four indicators
Missouri	0.37%	81.7%	4.7	77.1%	0.8
Montana	0.36%	75.8%	6.1	81.0%	1.7
Nebraska	0.28%	77.5%	4.8	76.4%	-2.1
Nevada	0.34%	76.4%	6.1	83.2%	2.2
New Hampshire	0.29%	72.3%	3.7	77.0%	-3.0
New Jersey	0.37%	72.3%	5.9	79.9%	1.0
New Mexico	0.55%	83.1%	3.3	77.6%	4.4
New York	0.38%	81.9%	4.1	79.2%	1.5
North Carolina	0.34%	76.5%	5.8	82.7%	1.9
North Dakota	0.29%	91.3%	4.2	78.3%	0.6
Ohio	0.28%	73.8%	3.7	81.4%	-1.4
Oklahoma	0.44%	84.6%	5.7	82.3%	5.0
Oregon	0.34%	76.6%	4.9	78.4%	-0.2
Pennsylvania	0.17%	77.9%	3.4	83.3%	-2.6
Rhode Island	0.19%	66.9%	3.5	77.1%	-6.0
South Carolina	0.29%	84.0%	3.9	82.3%	1.0
South Dakota	0.24%	84.7%	3.9	81.0%	-0.6
Tennessee	0.35%	81.1%	4.6	80.7%	1.4
Texas	0.37%	79.6%	5.2	81.9%	2.5
Utah	0.25%	91.4%	6.0	81.8%	1.8
Vermont	0.42%	75.2%	2.5	78.5%	0.6
Virginia	0.26%	79.9%	4.6	79.5%	-1.2
Washington	0.29%	75.7%	4.5	89.2%	2.6
West Virginia	0.17%	82.3%	3.4	81.1%	-2.8
Wisconsin	0.22%	85.2%	3.7	82.4%	-0.6
Wyoming	0.41%	85.2%	3.9	76.6%	1.7



Explore the Kauffman Indicators further at: [www.kauffman.org/indicators](http://www.kauffman.org/indicators)

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