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Entrepreneurship and the Oklahoma Economy



Oklahoma Employment Security Commission
Economic Research and Analysis Division

ENTREPRENEURSHIP AND THE OKLAHOMA ECONOMY

Oklahoma Employment Security Commission
Shelley Zumwalt, Executive Director

Economic Research and Analysis Division
Lynn Gray, Director & Chief Economist

Prepared by
Monty Evans, Senior Economist

Will Rogers Memorial Office Building
Labor Market Information Unit, 5th Floor N
P.O. Box 52003
Oklahoma City, OK 73152-2003
Phone: (405) 557-5369
Fax: (405) 525-0139
Email: imi1@oesc.state.ok.us

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Entrepreneurship and the Oklahoma Economy

The U.S. and state economies are characterized by dynamic changes and constant churning of both workers and businesses. Each year, many new businesses are formed through establishment openings. At the same time, many establishments are unsuccessful and exit the market. Entrepreneurship plays a vital role in national and statewide economic growth. As the primary source for information on the nation's labor market, the U.S. Bureau of Labor Statistics (BLS) collects data on new businesses and job creation. The following report provides highlights for Oklahoma from the data series produced by BLS Business Employment Dynamics (BED) program, providing insight on the contribution of young and small businesses to the overall number of businesses and jobs in the economy.¹

Business Employment Dynamics (BED)

BED data are compiled by the U.S. Bureau of Labor Statistics from the administrative records of the Quarterly Census of Employment and Wages (QCEW), or ES-202, program. This program is a quarterly census of all establishments under State unemployment insurance programs, representing about 98 percent of employment on nonfarm payrolls. The administrative records are linked across quarters to provide a longitudinal history for each establishment. The linkage process allows the tracking of net employment changes at the establishment level, which in turn allows the computation of gross jobs gained at opening and expanding establishments and gross jobs lost at closing and contracting establishments. These data help to provide a picture of the dynamic state of the labor market.

According to the BLS definition, an establishment is defined as an economic unit that produces goods or services, usually at a single physical location, and engages in one, or predominantly one, activity. A single firm may operate at one or more establishments under common ownership by a corporate parent. Therefore, an establishment birth can represent either the startup of a new business or the expansion of an existing one.

The BED program also includes data regarding the age of business establishments, which is based on the annual BED methodology measuring the over-the-year employment change from March of each year. The age of an establishment is determined by its date of first positive employment. Currently, the available data is from March 1994 through March 2020. Age categories used by BED for private-sector business establishments are: 'Less Than One Year'; 'One Year Old'; 'Two Years Old'; and so forth, as well as those 'Born Before March 1993'.

Business establishment age

The BED data series on age of establishment tracks cohorts of new business establishments 'born' in the same year and reports on their associated employment. The number of new business establishments (establishments that are less than 1 year old in any given year) tends to rise and fall with the business cycle of the overall economy. (Data by age are not available prior to 1994.)

During the period from March 1994 to March 2020, the number of new private sector business establishments in Oklahoma has, in general, followed national business cycles reaching its lowest level following the 'Great Recession'² (see Chart 1, next page).

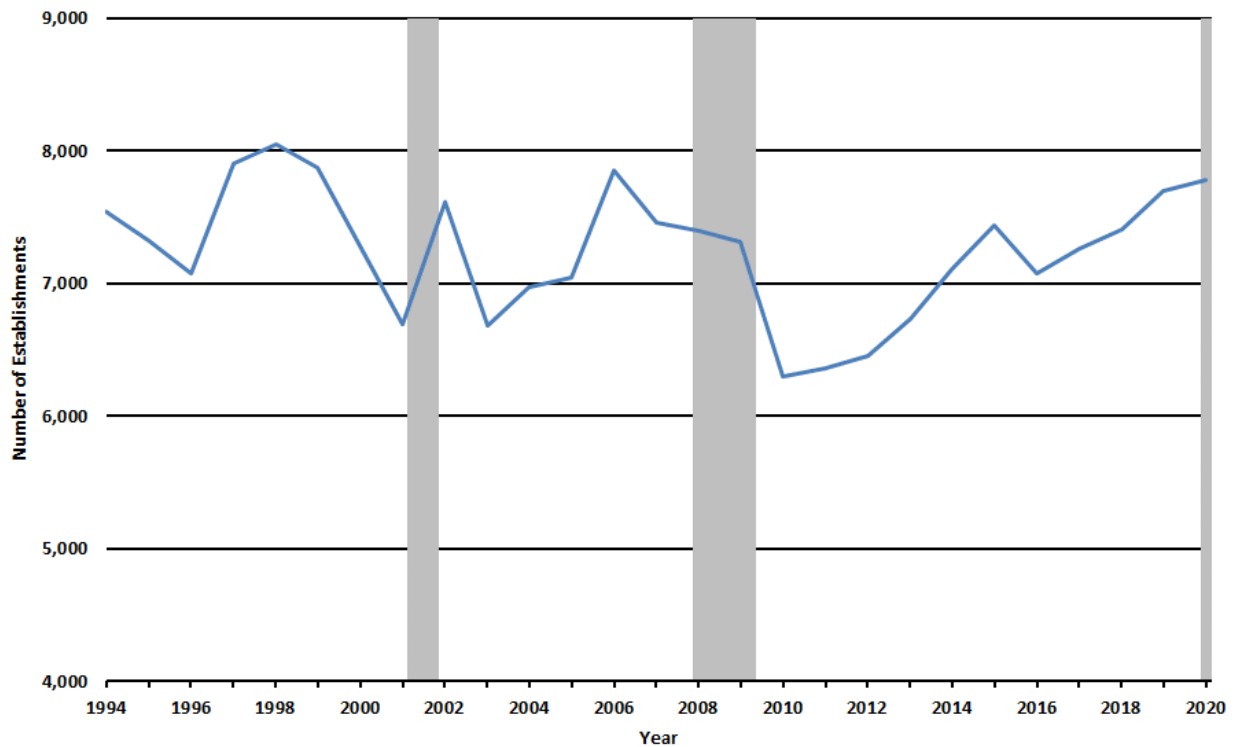
¹ 'Entrepreneurship and the U.S. Economy', BED Update, Business Employment Dynamics (BED) program, U.S. Department of Labor, Bureau of Labor Statistics, 2016.

² The 'Great Recession' began in December 2007 and ended in June 2009, lasting 18 months and making it the longest of any recession since World War II, according to the National Bureau of Economic Research (NBER).

Chart 1

**Oklahoma: Number of private sector business establishments, less than 1 year old
March 1994 to March 2020**

SOURCE: Business Employment Dynamics (BED), U.S. Department of Labor, Bureau of Labor Statistics



NOTE: Shaded areas represent National Bureau of Economic Research defined recession periods.

The number of new private sector business establishments (less than 1 year old) launching in Oklahoma climbed during the latter part of the 1990s, peaking in 1998 at 8,052 new establishments. During the brief 2001-2002 recession new private sector business growth dropped sharply and gradually recovered. New private sector business establishment formation fell to the lowest level in 2010, following the ‘Great Recession’, at 6,296. Since then, statewide new business formation has been growing, with the exception of the 2015-2016 period when lower commodity prices negatively impacted the state’s economy (see Chart 1 and Table 1, Page 8).

Over the 1994-2020 period, the associated number of jobs created by Oklahoma private sector business establishments less than 1 year old has decreased from 51,067 in 1994, when this series began, to 41,327 in 2020 (see Chart 2, next page). This trend combined with that of limited new establishments overall indicates that the number of new jobs in each new establishment is declining.

Following the 2001-2002 recession, the number of jobs created by new Oklahoma private sector business establishments fell steeply, from 60,471 jobs in 2002 to 47,445 jobs in 2007. This trend continued through the ‘Great Recession’ and by 2010 the number of jobs created by new business establishments had fallen to a low of 30,997 jobs.

Fewer jobs are being created by new private sector business establishments both statewide and nationally. In Oklahoma, the average number of jobs created per new private sector business

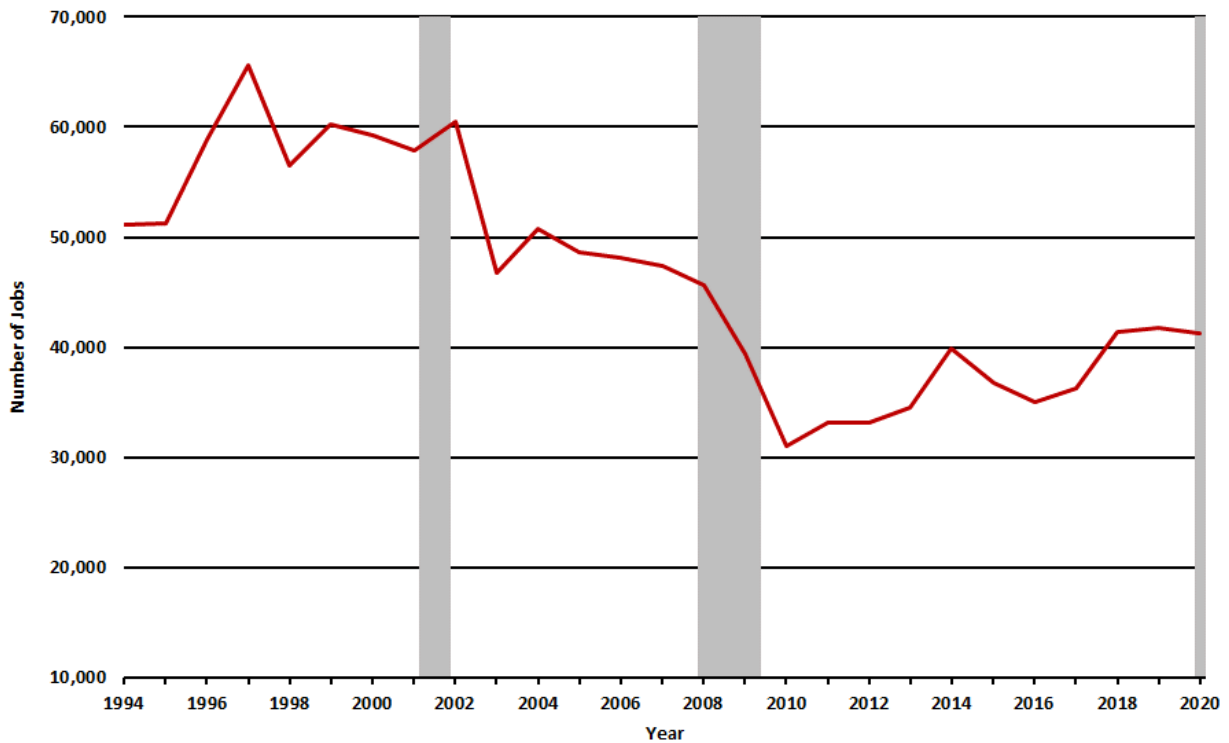
establishment reached a high of 8.6 jobs per establishment in 2001. However, the average has steadily declined to a current average of 5.3 jobs per new establishment in 2020 (see Table 1, page 8).

Chart 2

Oklahoma: Number of jobs created by establishments, less than 1 year old

March 1994 to March 2020

SOURCE: Business Employment Dynamics (BED), U.S. Department of Labor, Bureau of Labor Statistics



NOTE: Shaded areas represent National Bureau of Economic Research defined recession periods.

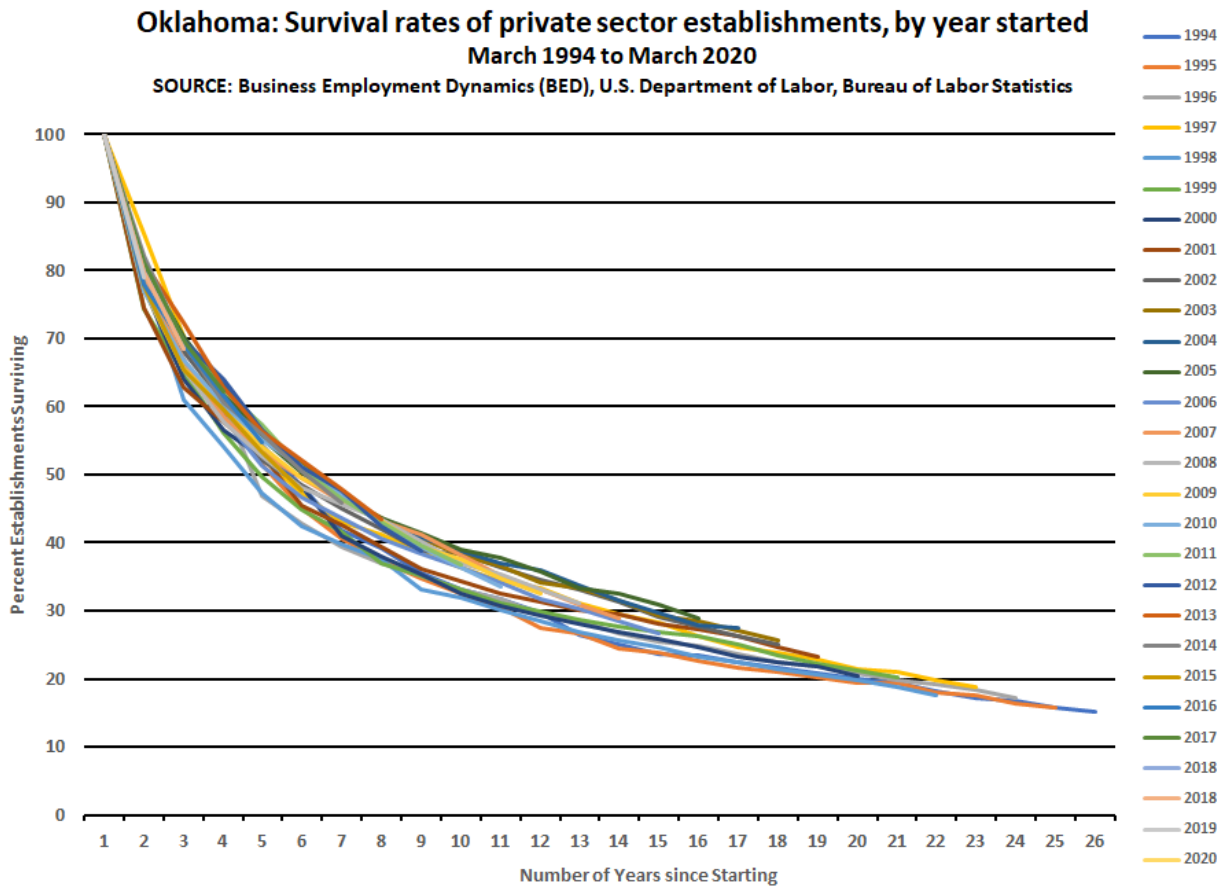
Establishment survival

New business establishments make an important contribution to the economy; nevertheless, inevitably some of these establishments will eventually fail. The BED age series tracks cohorts of new business establishments to measure how many survive from year to year. A cohort is defined as those establishments that opened during a given year. (for a full listing for Oklahoma, see https://www.bls.gov/bdm/ok_age_total_table7.txt).

Survival rates of private sector business establishments, regardless of the birth year, follow a similar path. Chart 3, on the next page, compares Oklahoma private sector establishment birth cohorts from each year from 1994 to 2020.

For example, of the 7,547 private sector business establishments born in Oklahoma in 1994, less than half (3,637 establishments or 48.2 percent) would still be open five years later and only about a third (2,394 establishments or 31.7 percent) would remain open ten years later. By 2020, only 15.2 percent (1,144 establishments) from this same 1994 birth cohort were still in business (see Chart 3, next page).

Chart 3



The BED establishment by age series traces cohorts of new businesses as a measurement of survival annually. Chart 4, next page, details the survival rates for the cohort of new Oklahoma business establishments opening in March 1994. In Chart 4, the proportion of all business establishment openings in March 1994 surviving in any given year is represented by the blue ‘establishment’ columns. Approximately 15 percent of Oklahoma private sector businesses that opened in March 1994 remained in business in March 2020, employing about 36 percent of the cohort’s initial employment, denoted by the green ‘employment’ columns.

Since the typical survival rate for a newly opened business establishment falls by roughly half in the first five years, this represents a critical period for continued growth. For every 100 private-sector establishments born in Oklahoma in March 1994, 22 failed to survive past the first year, 33 failed to survive past the second year, and 42 failed to survive past the third year after opening (see Chart 4).

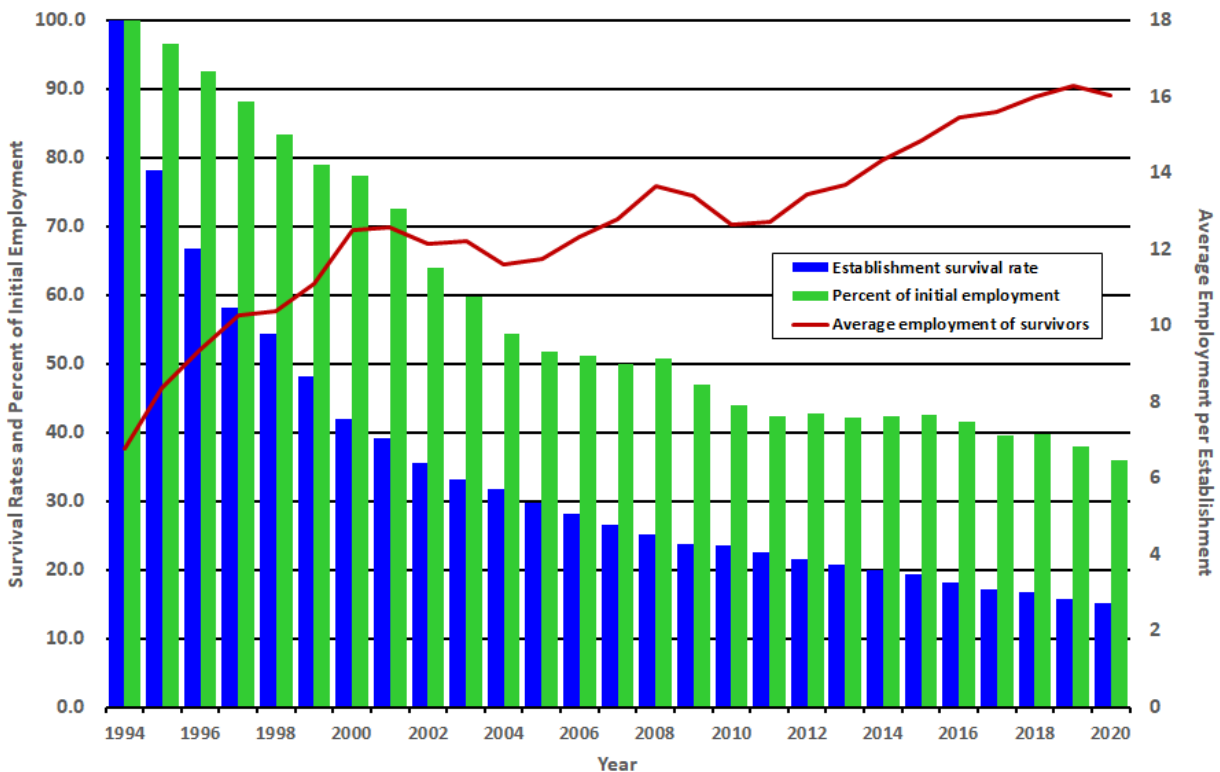
The surviving establishments size also grew quickly during the first five years after birth. In Chart 4, the line representing ‘average size of survivors’ is derived by dividing the surviving cohort employment levels by the total number of surviving establishments and reflects the number of employees hired by surviving establishments on average. This trend line shows the cohort of Oklahoma establishments opening in March 1994 averaged about seven workers per establishment. By March 2004, the surviving establishments’ size had grown to an average of almost 12 employees and by March 2014 that number

had increased to more than 14 employees. As of March 2020, Oklahoma private-sector establishments that were born in 1994 employed an average of 16 workers (see Chart 4 below).

Chart 4

Oklahoma: Survival rates of business establishments opening in 1994 and average employment per surviving establishment

SOURCE: Business Employment Dynamics (BED), U.S. Department of Labor, Bureau of Labor Statistics



Establishment births and deaths

In addition to annual birth cohorts identified by age, BLS also publishes seasonally adjusted state-level BED data on business births and deaths on a quarterly basis. The birth and death data series is the most timely source of data available on new private sector business establishments in Oklahoma (see Table 2, pages 9-12).

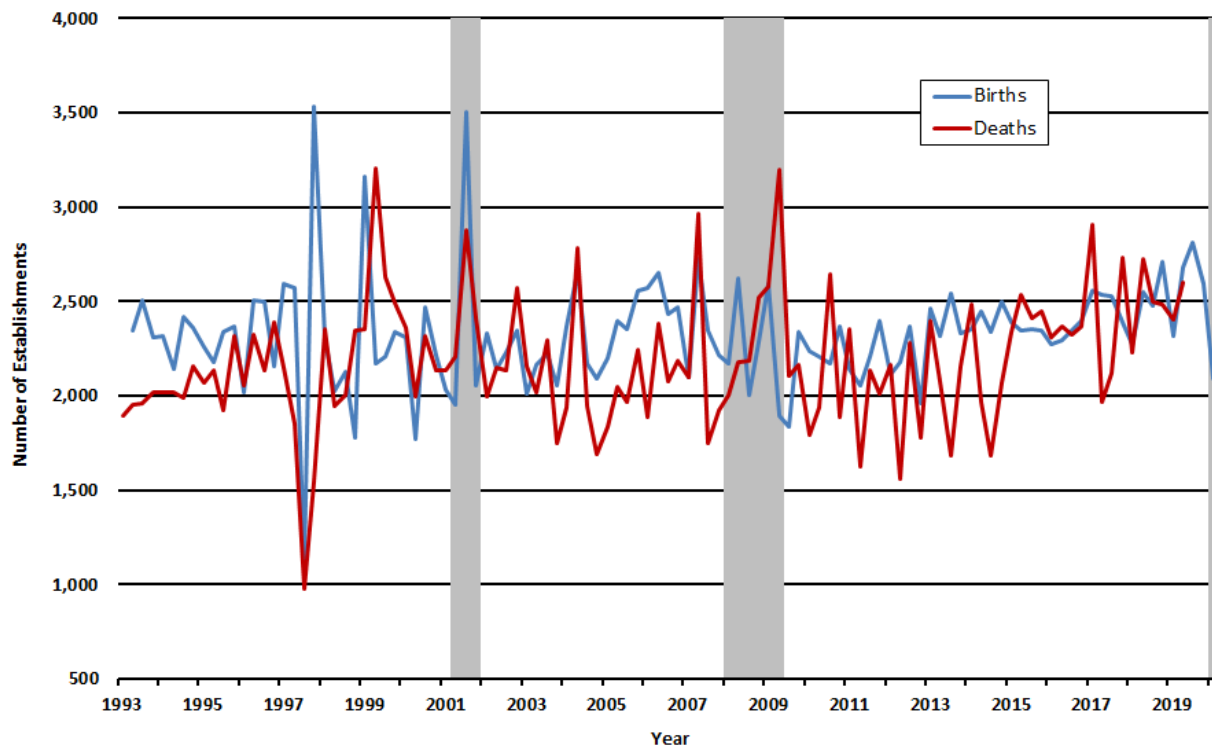
As shown in Chart 5, next page, the period from 1993 to 2004 was marked by an increase in the number of establishment births and deaths, indicating a higher amount of business “churn”—that is, new business establishments entered, and old establishments exited Oklahoma’s economy in greater numbers. Particularly, during the 3rd quarter of 1997 when both establishment births and deaths reached record series lows was followed by a series record high in establishment births in the 4th quarter of 1997.

At the end the most recent ‘Great Recession’, Oklahoma business establishment deaths reported the sharpest increase in the history of the series during the 2nd quarter of 2009. This trend reversed in early 2010 and establishment births have since returned to pre-recession levels.

Oklahoma private sector business establishment deaths climbed again from the end of 2014 through early 2017, during the period of time when falling commodity prices adversely affected the statewide economy (see Chart 5, below).

Chart 5

Oklahoma: Quarterly establishment births and deaths, 1993 to 2020
 SOURCE: Business Employment Dynamics (BED), U.S. Department of Labor, Bureau of Labor Statistics



Note: Shaded areas represent National Bureau of Economic Research defined recession periods.

Chart 6, on the next page, outlines seasonally adjusted job gains and losses associated with Oklahoma private sector business establishment births and deaths. The number of jobs created from establishment births peaked in the early 2000s and has experienced an overall decline since then.

The decrease in birth-related employment during the ‘Great Recession’ was one of the largest in the history of the series, followed closely by the period of “jobless recovery” following the 2001 recession. The period following the ‘Great Recession’ in Oklahoma has been characterized by somewhat of a recovery in birth-related employment (see Chart 6, next page).

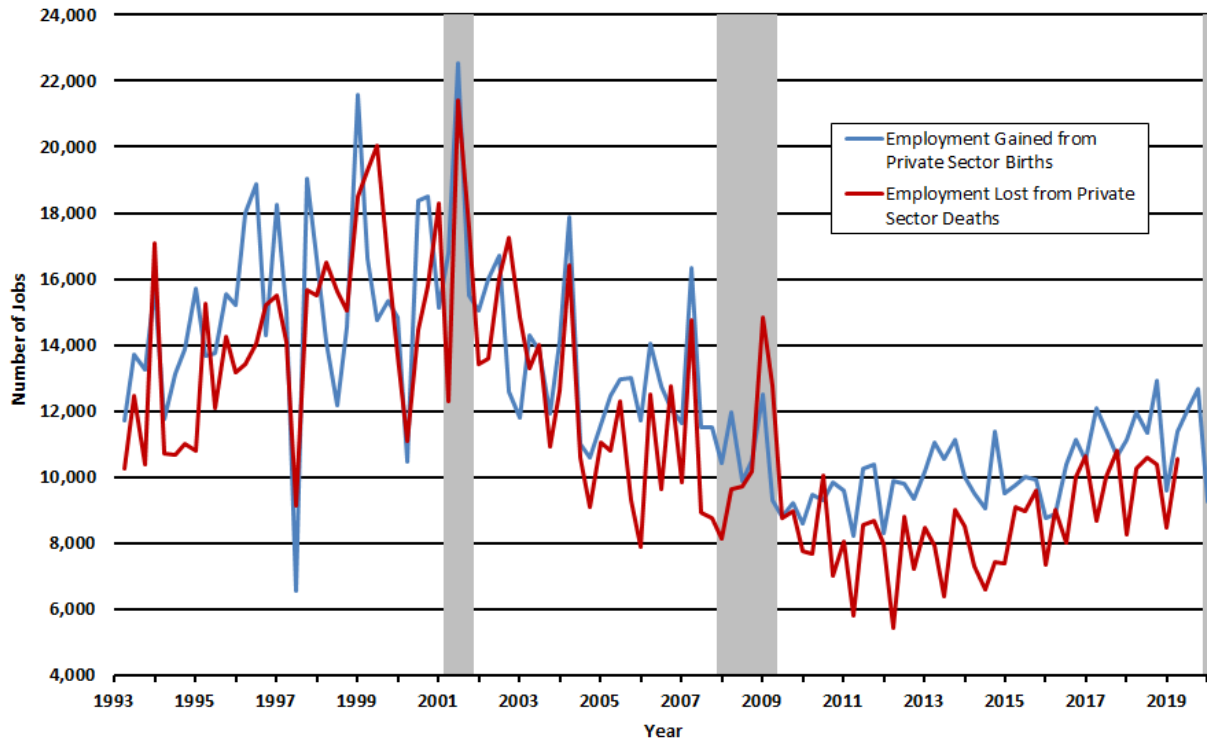
Summary

Entrepreneurship plays a critical role in economic growth in both the U.S. and Oklahoma. New private sector business establishment formation in Oklahoma fell to its lowest level in 2010, following the ‘Great Recession’. Since then, statewide new business formation has been growing but fewer jobs are being created by new private sector business establishments, reflecting a similar national trend. The typical survival rate for a newly opened business establishments in Oklahoma falls by nearly half in the first five years. However, the longer they survived, the more jobs these business establishments added.

Chart 6

Oklahoma: Quarterly employment gains and losses resulting from private sector establishment births and deaths, 1993 to 2020

SOURCE: Business Employment Dynamics (BED), U.S. Department of Labor, Bureau of Labor Statistics



Note: Shaded areas represent National Bureau of Economic Research defined recession periods.

More information

More information and data can be found on the Business Employment Dynamics webpage of the Bureau of Labor Statistics website at: [Business Employment Dynamics Home Page \(bls.gov\)](https://www.bls.gov/beds/)

Business Employment Dynamics data for other states can be found on the BLS website here: [Business Employment Dynamics Data By States \(bls.gov\)](https://www.bls.gov/beds/)

Quarterly Business Employment Dynamics reports for Oklahoma can be found on the OESC website at: [Business Employment Dynamics \(oklahoma.gov\)](https://www.oesc.org/)

Table 1. Oklahoma: Number of establishments less than 1 year old and jobs created, March 1994 to March 2020

Year	Number of Jobs	Number of Establishments	Jobs per Establishment
1994	51,067	7,547	6.8
1995	51,247	7,324	7.0
1996	58,910	7,072	8.3
1997	65,667	7,903	8.3
1998	56,501	8,052	7.0
1999	60,277	7,876	7.7
2000	59,184	7,285	8.1
2001	57,850	6,695	8.6
2002	60,471	7,620	7.9
2003	46,768	6,680	7.0
2004	50,732	6,973	7.3
2005	48,662	7,042	6.9
2006	48,087	7,850	6.1
2007	47,445	7,456	6.4
2008	45,661	7,402	6.2
2009	39,434	7,315	5.4
2010	30,997	6,296	4.9
2011	33,160	6,362	5.2
2012	33,101	6,451	5.1
2013	34,511	6,733	5.1
2014	39,895	7,103	5.6
2015	36,746	7,437	4.9
2016	35,003	7,072	4.9
2017	36,249	7,262	5.0
2018	41,452	7,409	5.6
2019	41,783	7,697	5.4
2020	41,327	7,777	5.3

SOURCE: Business Employment Dynamics (BED), U.S. Department of Labor, Bureau of Labor Statistics.

Year	3 months ended	Births ¹		Deaths ²	
		Establishments	Employment	Establishments	Employment
1992	September	N/A	N/A	1,869	10,089
	December	N/A	N/A	1,980	13,670
1993	March	N/A	N/A	1,895	11,162
	June	2,343	11,737	1,953	10,279
	September	2,509	13,722	1,958	12,488
	December	2,307	13,248	2,021	10,406
1994	March	2,314	15,773	2,016	17,078
	June	2,143	11,771	2,018	10,738
	September	2,416	13,135	1,986	10,697
	December	2,359	13,885	2,159	11,006
1995	March	2,255	15,734	2,066	10,820
	June	2,181	13,695	2,135	15,263
	September	2,337	13,763	1,921	12,088
	December	2,371	15,535	2,313	14,277
1996	March	2,018	15,226	2,054	13,185
	June	2,507	18,021	2,323	13,415
	September	2,495	18,895	2,132	14,066
	December	2,159	14,278	2,387	15,195
1997	March	2,592	18,262	2,146	15,523
	June	2,573	15,004	1,849	14,102
	September	1,108	6,559	977	9,145
	December	3,529	19,042	1,544	15,661
1998	March	2,302	16,639	2,351	15,491
	June	2,022	14,111	1,942	16,495
	September	2,124	12,181	2,003	15,639
	December	1,774	14,568	2,345	15,068
1999	March	3,164	21,593	2,351	18,481
	June	2,172	16,631	3,204	19,309
	September	2,208	14,757	2,628	20,043
	December	2,338	15,327	2,493	16,496
2000	March	2,310	14,831	2,361	13,654
	June	1,773	10,484	1,996	11,112
	September	2,471	18,363	2,313	14,462
	December	2,216	18,481	2,134	15,803

¹ Values for births are not available for the first three quarters

² Values for deaths are not available for the most recent three quarters by definition.

Table 2. Oklahoma: Private sector establishment births and deaths, seasonally adjusted (cont.)

Year	3 months ended	Births ¹		Deaths ²	
		Establishments	Employment	Establishments	Employment
2001	March	2,034	15,121	2,137	18,295
	June	1,955	16,790	2,207	12,309
	September	3,500	22,557	2,874	21,394
	December	2,051	15,516	2,411	17,536
2002	March	2,330	15,049	1,997	13,442
	June	2,142	16,007	2,146	13,603
	September	2,232	16,697	2,136	16,053
	December	2,342	12,595	2,569	17,241
2003	March	2,014	11,821	2,154	14,850
	June	2,164	14,285	2,020	13,295
	September	2,219	13,835	2,293	14,015
	December	2,056	11,919	1,752	10,934
2004	March	2,365	14,112	1,938	12,636
	June	2,662	17,879	2,782	16,437
	September	2,172	11,001	1,945	10,593
	December	2,090	10,610	1,691	9,102
2005	March	2,201	11,585	1,834	11,064
	June	2,394	12,460	2,049	10,789
	September	2,350	12,948	1,968	12,290
	December	2,558	13,011	2,241	9,314
2006	March	2,569	11,710	1,884	7,880
	June	2,651	14,032	2,385	12,528
	September	2,435	12,746	2,076	9,627
	December	2,468	12,107	2,184	12,752
2007	March	2,097	11,621	2,100	9,851
	June	2,725	16,344	2,968	14,737
	September	2,347	11,492	1,747	8,922
	December	2,216	11,495	1,925	8,744
2008	March	2,173	10,424	2,004	8,140
	June	2,622	11,963	2,176	9,625
	September	2,001	9,881	2,185	9,704
	December	2,289	10,520	2,522	10,172

¹ Values for births are not available for the first three quarters

² Values for deaths are not available for the most recent three quarters by definition.

Table 2. Oklahoma: Private sector establishment births and deaths, seasonally adjusted (cont.)

Year	3 months ended	Births ¹		Deaths ²	
		Establishments	Employment	Establishments	Employment
2009	March	2,593	12,492	2,578	14,840
	June	1,893	9,326	3,197	12,745
	September	1,835	8,815	2,108	8,757
	December	2,335	9,204	2,164	8,964
2010	March	2,239	8,617	1,791	7,768
	June	2,209	9,472	1,935	7,676
	September	2,171	9,319	2,646	10,067
	December	2,365	9,850	1,884	7,020
2011	March	2,140	9,596	2,353	8,074
	June	2,057	8,234	1,625	5,818
	September	2,209	10,254	2,136	8,566
	December	2,395	10,368	2,007	8,696
2012	March	2,109	8,287	2,164	7,963
	June	2,178	9,883	1,558	5,420
	September	2,369	9,822	2,279	8,827
	December	1,962	9,329	1,775	7,238
2013	March	2,456	10,173	2,403	8,558
	June	2,320	11,121	2,074	7,914
	September	2,549	10,549	1,683	6,346
	December	2,327	11,092	2,156	8,998
2014	March	2,347	9,956	2,485	8,529
	June	2,454	9,605	1,968	7,259
	September	2,343	9,064	1,674	6,541
	December	2,497	11,366	2,082	7,479
2015	March	2,367	9,379	2,342	7,370
	June	2,358	9,876	2,548	9,053
	September	2,366	10,034	2,398	8,944
	December	2,347	9,956	2,451	9,735
2016	March	2,271	8,764	2,308	7,347
	June	2,298	8,892	2,367	9,028
	September	2,343	10,368	2,325	8,034
	December	2,396	11,119	2,371	9,995

¹ Values for births are not available for the first three quarters

² Values for deaths are not available for the most recent three quarters by definition.

Year	3 months ended	Births ¹		Deaths ²	
		Establishments	Employment	Establishments	Employment
2017	March	2,556	10,499	2,903	10,639
	June	2,538	12,113	1,964	8,674
	September	2,531	11,419	2,120	10,032
	December	2,389	10,617	2,734	10,808
2018	March	2,276	11,151	2,226	8,272
	June	2,548	11,958	2,727	10,272
	September	2,478	11,348	2,501	10,612
	December	2,713	12,934	2,481	10,397
2019	March	2,320	9,606	2,402	8,475
	June	2,681	11,377	2,599	10,534
	September	2,808	12,027	N/A	N/A
	December	2,595	12,691	N/A	N/A
2020	March	2,089	9,281	N/A	N/A

¹ Values for births are not available for the first three quarters

² Values for death s are not available for the most recent three quarters by definition.

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