

Entrepreneurship, Business Survival Rates, and Job Creation in Montana

by Nick Holom, Economist

Montana's economic success is built on entrepreneurship and small businesses. Grandma and Grandpa Holom, like many others in Montana, earned a living by owning a small business in rural Montana. As owners of a moving company in Miles City, they made good partners. Grandpa was a Tetris master and could thread a grand piano through a doorway (or window if necessary), while Grandma was the CFO, managing sales, finances, and occasionally Grandpa. Entrepreneurship takes many forms in Montana, from farming and auto repair to restaurants and manufacturing. This month's Economy at a Glance explores entrepreneurship, the risks involved in starting a business in Montana, and how small businesses contribute to Montana's economic prosperity.

Business owners as a share of total employment:



Montana ranks 1st among states!

Entrepreneurship is Big in Montana

Entrepreneurship is an important source of income and employment for many Montanans. Compared to other states, Montana has the highest share of proprietors (business owners) among those working and ranks 10th by the percent of work earnings from proprietor income (15.3% compared to the 12.8% for the U.S.).¹

New firms are an important part of Montana's economic engine and are responsible for a majority of total job creation. Relative to other states, Montana is 4th by the percent of employment in firms that are in their first year of operation (5.0%) and 9th by the percent of total employment in firms 5 years or younger (14.3%).² Montana's economy depends on small business and new startups; however, starting a business has its risks.

Business Survival Rates and the Net Destruction and Creation of Businesses and Employment

Montana has an average of 2,642 new business starts every year.³ Business success depends on the acumen of the entrepreneur, but it can also require a bit of luck, particularly in terms of timing the business cycle correctly. Even if a business idea was sound in yesterday's economic environment, the likelihood of survival can change with the economic weather.

Figure 1 shows Montana's average business survival rates by years in operation.⁴ Survival rates are calculated as the percent of businesses that "survive" in subsequent years compared to the initial year. When interpreting this measure, it is important to keep in mind that some

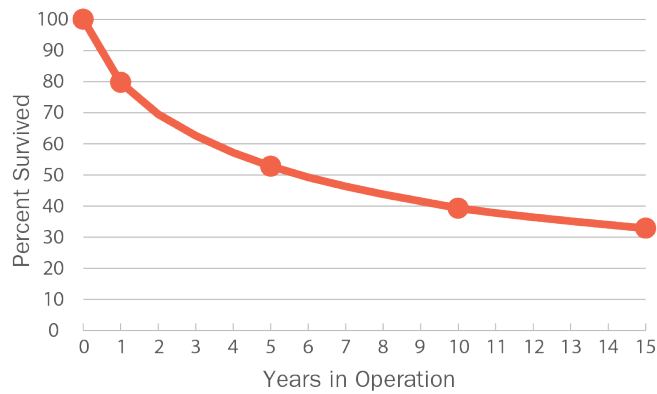
¹ Statistics on proprietor employment and income are based on 2018 data from the Bureau of Economic Analysis (BEA). Proprietor employment and income is defined by the BEA as employment and income from sole-proprietorships, partnerships, or for-profit businesses that are not corporations. Place of work earnings are defined as wage and salary disbursements, supplements to wages and salaries, and proprietors' income.

² Based on 2017 data from the Census Bureau Quarterly Workforce Indicators.

³ Bureau of Labor Statistic (BLS) Business Employment Dynamics (BED) average establishment births from 2000-2019.

⁴ Average survival rates include data from businesses that were started in 1994 and after. First-year average survival rates, therefore, are the average of first-year survival rates for businesses started from 1994-2018, while fifteenth-year average survival rates are the average of survival rates for businesses started 1994 to 2004.

FIGURE 1: Montana Business Survival Rates



Source: BLS BED - Average of all MT employing businesses started from 1994 to 2018.

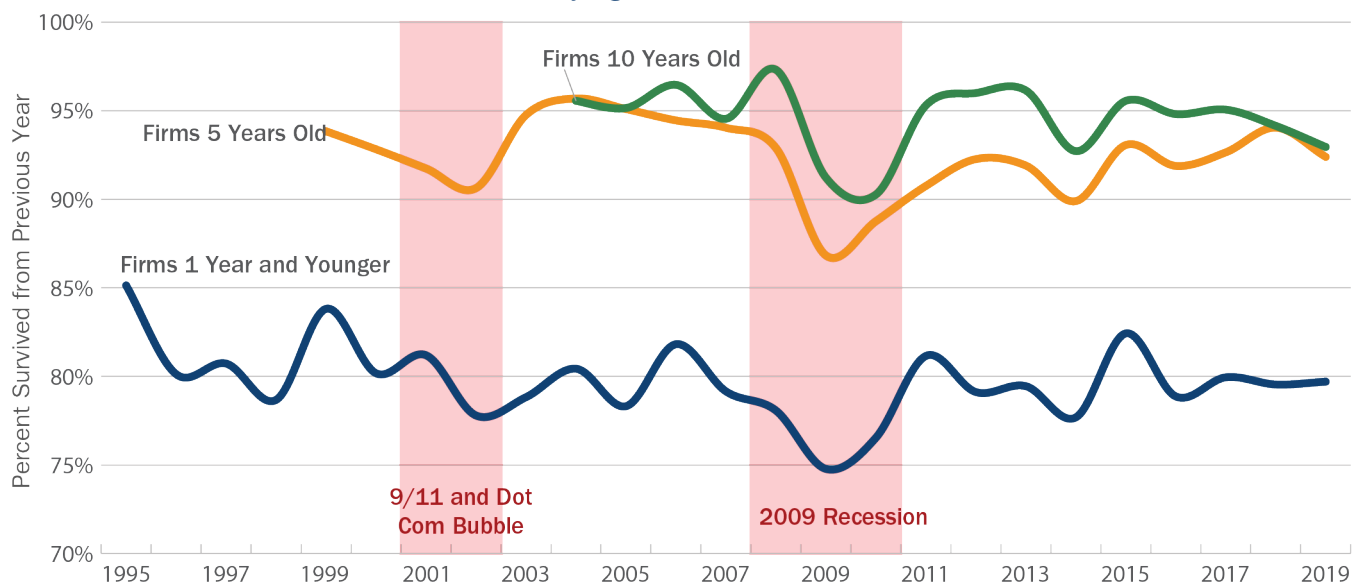
businesses close because they are successful, such as start-ups intending to be purchased by an investor or a mom and pop shop who sells or closes the business when they retire. Decreases in survival rates among young firms are more likely to be due to lack of success, while decreases in survival rates in later years may be for positive or negative reasons.

On average, the survival rate is 80% in the first year, meaning 1 out of 5 businesses close their doors in the first year. The survival rate in the first five years of operation has a steep downward slope. On average, 52% of Montana businesses survive into their 5th year—slightly better than a coin flip.

Figure 2 shows the year-to-year business survival rates by the age of the firm with recession periods shaded in red. **Figure 2** differs from **Figure 1** because it shows the percent of businesses from the previous year that are still in operation one year later, rather than the percent from the initial year that survived into following years.

Firms that successfully survived for five years or longer have a greater likelihood of survival than newer firms. Survival tends to be higher for older businesses, regardless of the economic environment. As businesses progress, owners gain knowledge, processes become smoother, and businesses build their clientele and reputation, making it easier for them to stay in business. However, firms of all ages are similarly affected by economic conditions. Survival rates during the 2009 recession dropped between 5-6% for all ages of firms compared to their average in non-recession years. For young firms in their first year of operation, the survival rate was 80% during non-recession years and dropped as low as 75% during the 2009 recession. For firms that are five years old, the average survival rate for non-recession years was approximately 93%, but hit the low point in 2009 at 87%. Survival rates for firms in their 10th year of operation typically hovered around 95% in non-recession years, but dropped to a low of 90% survival in 2010 as the economy exited the recession.

FIGURE 2: Montana Business Survival Rates by Age of Firm



Source: BLS BED

The business cycle also affects the net creation of businesses. When the economy is doing well, there are fewer business deaths, and more entrepreneurs start businesses to capitalize on a strong economy. **Figure 3** shows that the quarterly establishment birth and death rates follow the business cycle.⁵ Prior to start of the recession in 2007, Montana had net establishment gains with births outstripping deaths at a rate of .2-.8 net quarterly births per 100 establishments (green line minus the red line). During the recession, Montana had net losses of establishments. As Montana recovered from the recession, Montana oscillated between net creation and destruction of establishments, and over time had longer periods of net establishment creation.

FIGURE 3: Rate of Total Establishments Gained and Lost from Births and Deaths

Source: BLS BED

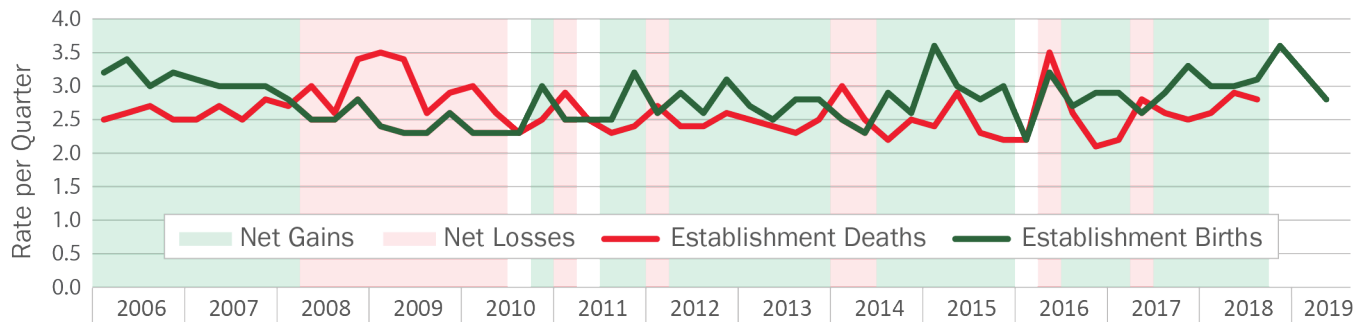


Figure 4 shows how establishment births and deaths translate into employment gains and losses.⁶ Though total employment in the economy tends to change more slowly, there is a great deal of churn occurring below the surface. Employment created by establishment births peaked in the 4th quarter of 2007 at the start of the recession, and decreased as the recession continued. Employment lost from establishment deaths peaked in 2009 at the height of the recession. During the expansion after 2010, employment gains occurred more frequently as the economy stabilized.

FIGURE 4: Rate of Total Employment Gained and Lost from Establishment Births and Deaths

Source: BLS BED



The share of employment in young firms declined from 2000 to 2019 (see **Figure 5**). While the share of establishments five years and younger declined slightly (moving from 39% to 36% of total establishments), their share of employment dropped significantly, going from 24% to 14% of total employment. During the same time period, the average number of employees per young establishment shrank from 6.6 to 4.5.

Industry mix partially explains the smaller average employment in recent startups. The Professional and Technical Services industry had the largest growth in establishments from 2008 to 2018, as shown in **Figure 6**. The Professional and Technical Services industry includes management and tech consulting, legal services, accounting, architecture, and computer systems design, and has a smaller than average size of 3.7 employees per establishment.⁷

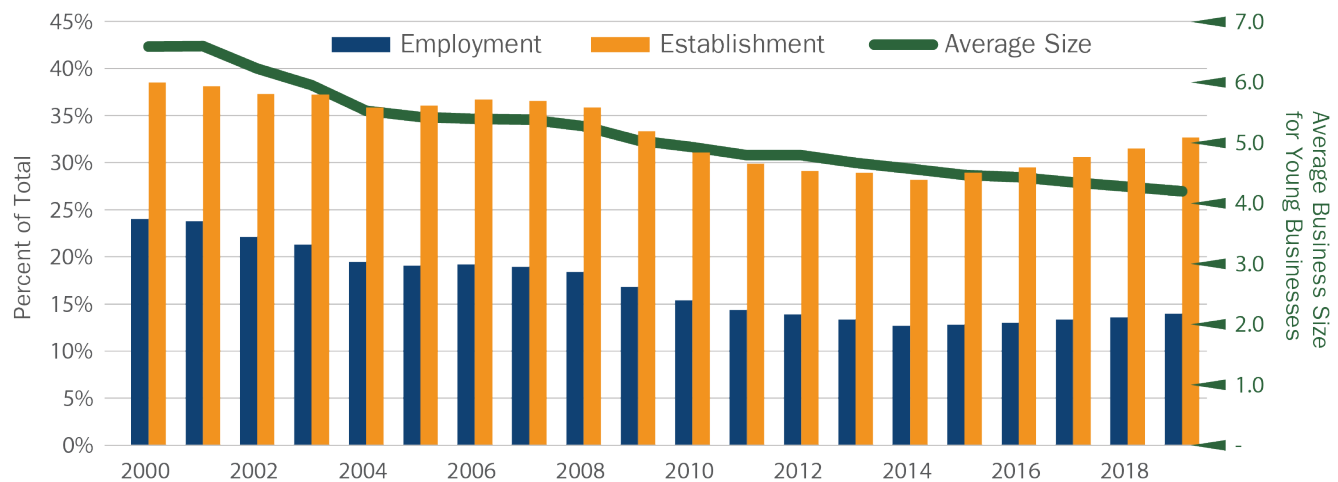
⁵ Rates measure establishment births and deaths as a percentage of the total of establishments averaged over the previous and current quarter.

⁶ Rates measure employment from establishment births and deaths as a percentage of the total of employment averaged over the previous and current quarter.

⁷ According to 2018 data from the Bureau of Labor Statistics.

FIGURE 5: Establishments and Employment for Businesses Aged 0 to 5 Years

as a Percent of Total Compared with Average Business Size



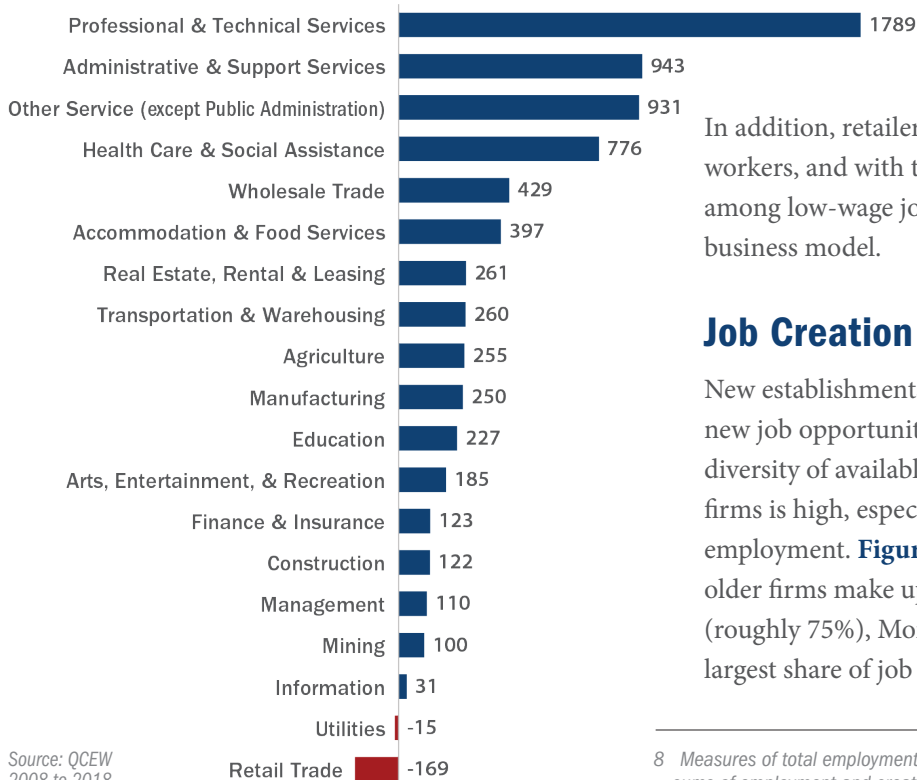
Source: BLS BED

Other industries with high startup rates include Administrative and Support Services and Other Services (which includes auto shops, many nonprofits, and daycares). Net creation of establishments has been concentrated among industries with lower barriers to entry, recent increases in demand, and those that are more labor intensive rather than those requiring

investment in physical capital. Lower capital costs can reduce the need for investment capital for startups. From 2008 to 2018, the Professional and Technical Services industry had the highest number of new establishments (1,789) followed by Administrative and Support Services (943), and Other Services (931). The Retail Trade industry had the largest number of net closures of establishments over this period, with a net decrease of about 169

FIGURE 6: Net New Establishments by Industry

2008-2018



Source: QCEW
2008 to 2018

establishments. This decrease is likely due to the increase in online retailers that has shifted consumers away from brick and mortar stores.

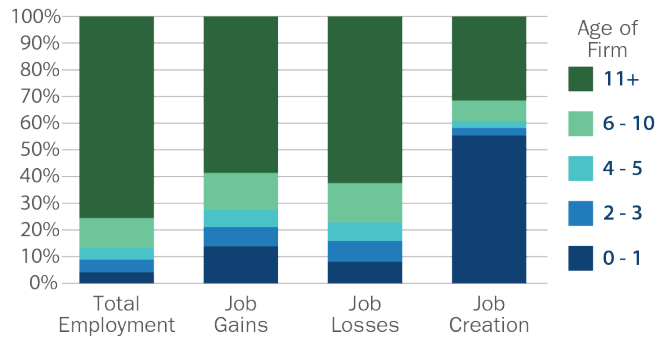
In addition, retailers' business models rely on low wage workers, and with the worker shortage and wage growth among low-wage jobs, retailers cannot maintain their business model.

Job Creation in New Establishments

New establishments play an important role in creating new job opportunities for Montanans and adding to the diversity of available jobs. Job creation among young firms is high, especially considering their share of total employment. **Figure 7** shows that although Montana's older firms make up a larger share of employment (roughly 75%), Montana's youngest firms make up the largest share of job creation.⁸ Firms in their first year of

⁸ Measures of total employment and total job creation in this section are based on the sums of employment and creation from 2008 to 2017.

FIGURE 7: Share of Total Employment, Job Gains, Losses, and Creation by Age of Firm



Source: Census Bureau QWI

FIGURE 8: Percent of Total Job Creation by Industry and Age of Firm



Source: Census QWI

operation are responsible for 56% of the job creation in Montana, while firms 11 years or older make up 32%. Even when comparing job creation per establishment, younger firms have higher job creation per firm compared to established firms. Annual job creation per establishment for firms 0 to 1 years old amounts to 1.4 jobs per establishment while firms 11+ years create only 0.2 jobs per establishment.⁹

As with the creation of new establishments, job creation is highest among industries that are labor intensive and have lower barriers to entry. **Figure 8** shows that labor intensive industries such as Accommodation and Food Services, Health Care and Social Assistance, Construction, and Retail Trade top the list in terms of job creation in Montana, with most newly created jobs coming from young firms.

Accommodation and Food Services, the largest industry by job creation, makes up nearly 21% of total job creation in Montana, approximately 15% of which is from young firms. In addition, large shares of jobs have been created in Health Care and Social Assistance, Construction, and Arts, Entertainment, and Recreation. The Retail Trade industry also accounts for a relatively large share of Montana's job creation, despite having a net decrease in establishments.

Some of Montana's industries, such as manufacturing, have had net job creation among young firms and net destruction among older firms. For manufacturing, there has been creation of jobs and establishments in subgroups such as fabricated metal and beverage and tobacco manufacturing, while older sectors, such as wood product manufacturing, have decreased both establishments and jobs.

Entrepreneurship by County

Many counties in Montana have experienced growth in the number of establishments from 2008-2018. **Figure 9** shows the average annual percent change in establishments from 2008-2018. Many of Montana's counties, both urban and rural, have high rates of annual growth in establishments. Counties with the highest average growth rates include Judith Basin, with 4.1% annual growth in establishments, Carter with 3.2%, and Richland and Gallatin, both with 2.7% average growth.

It's no surprise that Montana's most populated counties have the largest shares of overall job creation. **Figure 10** shows that the top five counties by job creation make up approximately two-thirds of the total job creation in Montana, with a majority of that job creation coming from young firms. Gallatin county has the

⁹ Rates of job creation per establishment use average jobs created by age of firm from the 2008-2017 QWI data and average establishments by age establishment from the 2008-2017 BLS BED data.

largest percent of total job creation with 21% of the total, 12% of which is among firms in operation for 5 years or less. By comparison, the share of job creation in Lewis and Clark County is 6%, two-thirds of which is from young firms.

Each county had high levels of job creation in industries such as Accommodation and Food Service, Health Care and Social Assistance, and Retail Trade, however, there are differences in the industries that rank in the top 5 by job creation. Yellowstone county had its 5th highest job creation in the Arts, Entertainment, and Recreation industry, which includes jobs in

FIGURE 9: Average Annual Percent Change in Establishments by County, 2008-2018

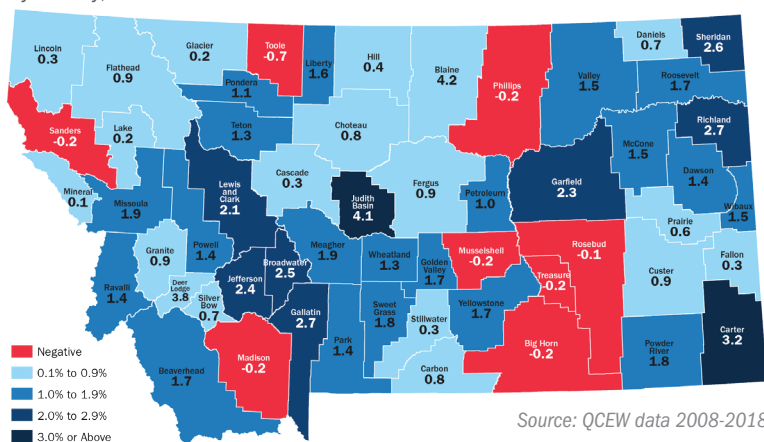
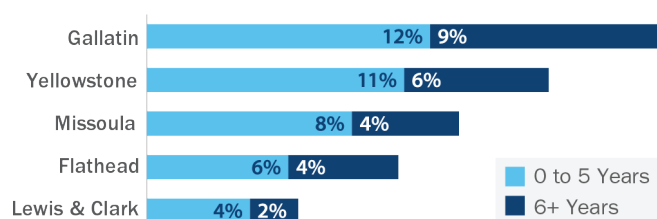


FIGURE 10: Top 5 Counties for % of Total Job Creation by Age of Firm, 2008-2017



Source: Census QWI

live performance and events. Missoula county had its 5th highest job creation in the Other Services industry, which includes jobs in membership organizations, repair and maintenance, and personal care services. Flathead county had high job creation in its Manufacturing sector, including jobs in manufacturing fabricated metal, furniture, food and beverages, and electronics, while Lewis and Clark had its 3rd highest jobs created in the Administrative industry and Gallatin had the highest job creation in Professional and Technical Services.

FIGURE 11: Top 5 Industries in Each County by Total Job Creation 2008-2017

	Gallatin	Yellowstone	Missoula	Flathead	Lewis & Clark
Accommodation and Food Services	2518	2509	1922	1353	838
Health Care and Social Assistance	1508	1546	1293	973	667
Professional and Technical Services	1137		654	539	297
Construction	1017	1470			
Retail Trade	855	823	720	502	371
Manufacturing				448	
Administrative and Support Services					411
Other Services (except Public Administration)			648		
Arts, Entertainment, and Recreation		771			

Source: Census Quarterly Workforce Indicator 2008-2017

Conclusion

Entrepreneurship and small business is a big part of what makes Montana's economy unique. Though entrepreneurship has its risks, nearly a third of firms (including Grandma and Grandpa Holom's), survive for at least 15 years, providing services and job opportunities to communities around Montana. As Montana's economy evolves, new businesses play an essential role in growing the economy, creating jobs, and contributing to the diversity of Montana's economy. It is important to recognize the ways that entrepreneurs help to develop Montana's economic potential, as well as the risks they face in starting new businesses.