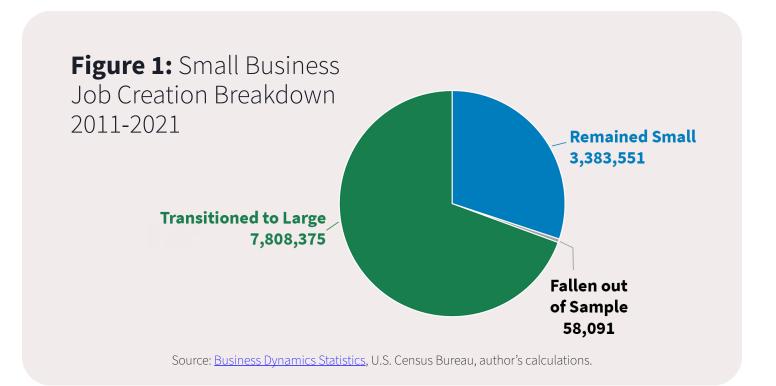




All Grown Up: How Small Business Jobs Transition through the Economy

By Robert Press

Small businesses are the primary driver of employment growth in the United States. According to the U.S. Census Bureau's Business Dynamics Statistics (BDS), ¹the U.S. has added 14.1 million net jobs since 2011. Of these jobs, 11.25 million (79.8%) were created by small firms employing fewer than 500 employees. ²When comparing the 2011 small business job stock to the 2021 stock, data indicates that small business employment only increased by 3.38 million over the same period. At a difference of 7.87 million net jobs, the question arises: Where did 69.9 percent of all new jobs at small businesses go? A closer look at the data shows a small number³ (58,091) of jobs fell out of the sample entirely. However, nearly all those small business jobs actually transitioned into jobs at large businesses.



¹Business Dynamics Statistics U.S. Census Bureau. All numbers are calculated using the initial firm size datasets.

²The Bureau of Labor Statistics also tracks employment changes over time in the Business Employment Dynamics (BED), but it does not report data on number of firms and employees used in this blog post. The BED shows a lower percentage of jobs created by small businesses over the same period (March 2011 till March 2021) of 70.1%. It is the long run average from this dataset from which the commonly reported statistic that two-thirds of all job growth comes from small businesses.

³A judgment call was made on which size category to assign the jobs which moved in and out of sample. I assigned changes to small business in proportion to their fraction of employment in the given year. In total there were 118,000 net jobs which fell out of sample over the 10-year period.

Jobs can transition between small and large businesses in four main ways:

- 1. A small business can add a 500th employee, at which point the business is no longer classified as small.
- A large business can lay off its 500th employee and transition into a small business.
- 3. A small business can be acquired by a large business.
- 4. A large business may spin off a portion of its business as a new small business.

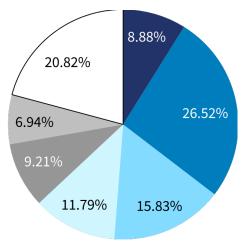
All the jobs at the firm move classifications when any of these events occur.

Unfortunately, the BDS data is not detailed enough to provide an estimate of the number of jobs moving along each pathway. However, we can get a rough estimate of the net job transitions due to firms crossing the 500-employee threshold that separates large and small businesses. This can be found by using data the BDS does track including the total number of firms, new firm births, and firm deaths. After the net number of firm transitions has been identified, an estimate of the number of jobs that transition with those firms can be found by multiplying the number of firms by 499 jobs. ⁴Between 2011 and 2021, the number of large businesses increased by 3,759. Additionally, there were 912 firms that began with more than 500 employees in their first year, and 1,269 firms that shut down while employing 500 or more employees in their final year. As such there were at least 4,116 net firms and 2.05 million net jobs which transitioned from small firms to large ones. ⁵This estimate represents 18.3 percent of net small business job growth.

Very few large businesses begin large. In 2021, only 100 out of 22,704 large businesses (0.4%) were less than a year old, as seen in Panel B of Figure 2. For comparison, 475,972 out of 5.36 million small businesses (8.9%) were less than a year old in Panel A. It could take a business years before hiring its 500th employee and gaining a large business classification. This is shown in Figure 2, as each successive fiveyear bucket of large firms is bigger than the preceding. ⁶In contrast, Panel A shows a smaller number of firms in each successive five-year bucket.

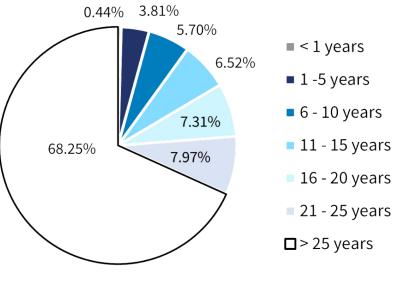
Figure 2: Business Age by Size

Panel A: Small Business



Source: <u>Business Dynamics Statistics</u>, U.S. Census Bureau, author's calculations.

Panel B: Large Business



Source: <u>Business Dynamics Statistics</u>, U.S. Census Bureau, author's calculations.

⁴The results are only a lower bound rather than a central estimate for two reasons. First, because the BDS does not consider firms absorbed in a merger to be a firm death. As such whenever two large firms merge it will mean another small firm must have grown large to take its place. Second, because firms may also add more jobs beyond 500 which would be counted as small business jobs based on the firm's initial size.

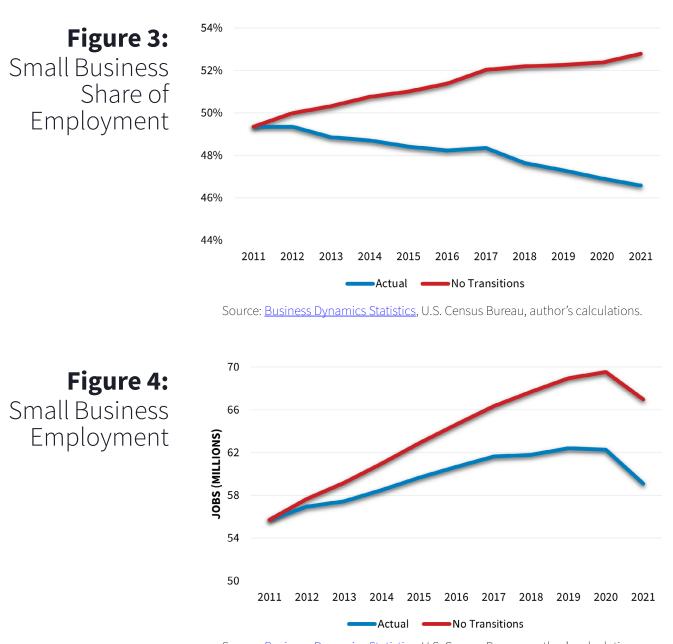
⁵The total number of net transitions to large firms is calculated as the change in the number of large firms (3,759) minus the number of firms that began with more than 500 employees (912) plus the number of large firms that closed with more than 500 employees in their final year (1,269). The net number of jobs is calculated by multiplying the net transitions by 499 employees.

⁶By looking at the same group of firms across time can rule out changing rates of business formation as the cause. Each large business cohort grew over time. The only declines were between 2006 and 2011, and 2016 and 2021 for large firms aged 21-25 years in 2021. Both time periods featured recessions which likely explain the declines.

Since most net job growth by small businesses was later moved to large businesses, another question arises: How would the share of employment at small businesses develop over time without transitions? Answering this question will provide greater clarity on the number of jobs tied to small businesses in the recent past.

In 2011, employment at small businesses was 55.71 million and represented 49.4 percent of the total. With transitions, the share of total employment steadily declined reaching 46.6 percent in 2021. The total number of jobs at small businesses rose through 2019 but then declined ending at 59.09 million in 2021 because of the COVID-19 pandemic, as shown with blue lines in Figures 3 and 4 respectively.

If all transitions were prevented, small businesses' share of total employment would rise steadily ending at 52.8 percent in 2021, shown with the red line. This would push small business employment to 66.96 million in 2021.



Source: Business Dynamics Statistics, U.S. Census Bureau, author's calculations.

While small businesses are the primary driver of employment growth in the United States, the jobs they create do not all remain at small businesses. Many of the jobs transition to large businesses, either through a small business naturally growing large, or a large business acquiring a small one. In general, the jobs created at small businesses that later transition to large businesses are part of an innovative and competitive economy.