There have been unusual patterns in economic activity during the COVID-19 crisis. For example, in contrast to most recessions, household income and personal savings increased during the crisis.\(^1\) Another unusual feature of the COVID-19 crisis is the behavior of business applications.

Data on business applications come from Business Formation Statistics, a dataset provided by the U.S. Census Bureau. Business applications are all applications for an employer identification number inside the 50 U.S. states and Washington, D.C.\(^2\) In Figure 1 we compare business applications before and after the start of two recessions. Month 0 corresponds to the peak month before a recession as dated by the National Bureau of Economic Research. The peak month for the 2007 recession was December 2007, and for the COVID-19 recession it was February 2020. On the vertical axis the number of monthly business applications are normalized to 1 in month 0 to allow for comparison across recessions. Thus, a value of 1 implies no difference relative to the start of the recession; a value of 0.9 implies 10% fewer business applications than at the start of the recession; and a value of 1.1 implies 10% more applications.

Business applications are relatively stable before each recession. But in both recessions, applications fell about 15% in the month after the recession started. The remarkable aspect of the figure, however, is the increase in business applications during 2020. In July, five months after month 0, business applications were almost double (86% above) what they were in February. In comparison, five months after the 2007 recession started, business applications were 10% lower and kept declining: They were 25% lower one year after the start of the recession.

In total, there were over 1.1 million more business applications in the 12 months after February 2020 than in the 12 months before February 2020—a 34% increase. In comparison, there were 130,000 fewer business applications in the 12 months after December 2007 than in the 12 months before December 2007—a 5% decline.

Business applications did not increase uniformly across sectors. In Figure 2 we report the percentage increase of total business applications, by sector, in the 12 months after February 2020, relative to the total in the 12 months before February 2020 (blue bars); we also report the contribution of each sector to the total increase in business applications (black bars). Even though there was an increase in many sectors, it is the retail trade sector that experienced the largest increase in applications—a 79.2% increase, amounting to 20% of the total increase in applications. The real estate sector experienced the smallest increase in new businesses—that is, 2%—but still contributed to 5% of the total increase in applications.\(^3\)

Business applications are only one side of the coin, though. An important question is whether the COVID-19 crisis induced an abnormally large number of business failures. This type of data is generally not available as early as business-formation data. Crane et al. (2021) provide estimated business shutdowns during the pandemic using payroll data.\(^4\) They find a peak in business closures lasting

\(\text{Figure 1} \)

**Business Applications in the U.S. During the 2007 and 2020 Recessions**

<table>
<thead>
<tr>
<th>Month from peak month</th>
<th>2007 Recession</th>
<th>2020 Recession</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>-5</td>
<td>0.85</td>
<td>1.25</td>
</tr>
<tr>
<td>-10</td>
<td>0.75</td>
<td>1.15</td>
</tr>
<tr>
<td>5</td>
<td>0.5</td>
<td>1.05</td>
</tr>
<tr>
<td>10</td>
<td>0.25</td>
<td>1.1</td>
</tr>
<tr>
<td>15</td>
<td>0.15</td>
<td>1.2</td>
</tr>
</tbody>
</table>

**Note:** Figure shows all business applications in the U.S. before and after the peak months of the 2007 and 2020 recessions.

**Source:** U.S. Census Bureau, Business Formation Statistics.
increased 23% in the 12 months after February 2020, relative to the total in the 12 months before February 2020. A total of 1.6 million high-propensity businesses were created between March 2020 and February 2021, helping with the reduction in unemployment during this period.

Notes
2 Applications for tax liens, estates, trusts, and certain financial filings are not counted as business applications.
3 The sectors represented in Figure 2 account for 76% of the total increase in business applications. Hence, the numbers associated with the black bars do not add to 100%.
5 The Census determines whether an application is “high propensity” based on the characteristics of the application (e.g., applications from a corporate entity, applications indicating they are hiring employees, applications with planned wages, and applications for retail stores or restaurants/food service).

Conclusion
What do these considerations mean for the U.S. economy? On the one hand, business applications have been up, and, on the other hand, business closures may be returning to normal. This suggests a venue for unemployment to decline and stay low. It is not known, however, how many employees the new businesses would hire or how likely the businesses are to survive in the months following their creation. To address this question, the Census divides business applications between “high-propensity business applications” and all other business applications. High-propensity applications are the most likely to turn into businesses with employees and are thus quite different from applications submitted by, for example, laid-off workers who become self-employed and are less likely to hire anyone. Total high-propensity business applications increased 23% in the 12 months after February 2020, relative to the total in the 12 months before February 2020. A total of 1.6 million high-propensity businesses were created between March 2020 and February 2021, helping with the reduction in unemployment during this period.

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