BY TIM SABLIK

A Pandemic-Era Startup Boom

A surge of interest in starting new businesses could reverse a long-running drought

Although the data are still coming in, early evidence suggests that the economic downturn triggered by the coronavirus pandemic in 2020 hit businesses hard. University of California, Santa Cruz economist Robert Fairlie estimated that the number of active business owners in the United States fell by 3.3 million or 22 percent in the first few months of the pandemic. Some of those closures were a temporary response to lockdown requirements, but even so, the pandemic represented a historic challenge for many business owners.

At the same time, recessions can present opportunities for those looking to start their own business. Many successful startups were born in recessions, including the Walt Disney Co., Microsoft, CNN, Trader Joe's, Uber, and Airbnb. That entrepreneurial spirit appears to be alive and well today.

One business founder of the pandemic era is Chris Evans of Raleigh, N.C. Evans, who describes himself as a "serial entrepreneur," started his first company in the 1980s during his freshman year at North Carolina State University and has built startups in a variety of fields since. When the pandemic hit, he partnered with an inventor at N.C. State to start Aries, a company that produces breathable, high-filtration masks using a new type of fabric technology.

"This felt like a moment to do something different and be part of the solution to the pandemic," says Evans.

According to the U.S. Census Bureau's Business Formation Statistics, which collects the number of people filing for an Employer Identification Number (EIN) with the IRS, Evans is far from alone in seeing new opportunities during the last year. Business owners expecting to hire employees must file for an EIN for payroll tax purposes, and many sole proprietors choose to file for one to facilitate various business activities.

According to these figures, applications for new businesses surged to record highs starting in the summer of 2020 and have remained above pre-pandemic levels. (See chart.) Filing for an EIN is free, and not everyone who applies will necessarily open a business, so these numbers almost certainly overstate the number of actual new businesses being created. But economists who study business activity have found that EIN applications have historically been a good leading indicator of startup activity over the next one to two years. This suggests that we may soon be in the midst of a startup wave, which is not what most researchers would have predicted.

DECADES OF DECLINING DYNAMISM

When the COVID-19 recession began, many economists worried that the eventual recovery would be slow, like the aftermath of the Great Recession of 2007-2009. In the wake of that downturn, the startup rate for new businesses declined and remained depressed long after the recession had ended: It was still 24 percent lower in 2018, nine years into the recovery, than it had been in 2006. That wasn't all. Economists who began researching the startup decline after the Great

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Recession discovered that it was only part of a longer-running trend stretching back decades to the early 1980s.

Fewer new firms means that economic activity has increasingly become concentrated in larger, older businesses, and there is mounting evidence that this has had several negative consequences for the economy.

First, young firms create a disproportionate share of jobs. Policymakers often refer to small businesses as the engines of growth in the economy, but that is not quite right. In a 2013 article in the *Review of Economics and Statistics*, John Haltiwanger of the University of Maryland, Ron Jarmin of the Census Bureau, and Javier Miranda of the Halle Institute for Economic Research and the University of Jena found that a firm's age rather than its size is the key. New firms, rather than small businesses in general, are the more significant sources of job creation.

Young firms are more likely to grow rapidly than older businesses, and since new businesses tend to be small when they start, this explains the apparent correlation between small businesses and growth. But not all small businesses grow — most stay small (think of a family-run restaurant or a solo services provider, like a self-employed plumber). New businesses that are poised for growth tend to either grow rapidly early in their life cycle or fail.

Jay Bigelow, head of entrepreneurship at the Council for Entrepreneurial Development (CED) in North Carolina, has seen this rapid growth in startups many times. CED is a nonprofit focused on connecting entrepreneurs in the Research Triangle area of North Carolina with mentors, financial backing, training programs, and other resources. Bigelow says he's seen many tech startups grow from a handful of employees to hundreds in just a few years.

"Once these companies start to scale, they tend to hire fast," he says.

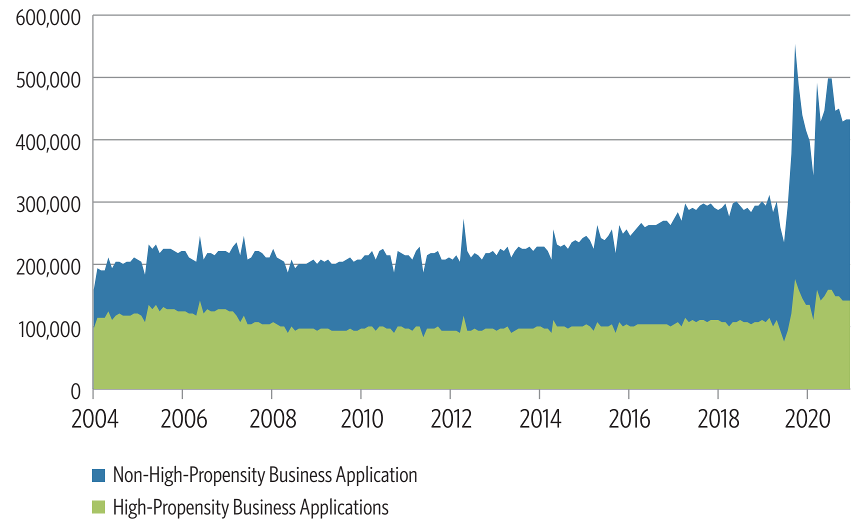
The role that young businesses play in job creation also means the decline in the startup rate has implications for how the economy recovers from recessions. In a 2019 article, Benjamin Pugsley of the University of Notre Dame and Ayşegül Şahin of the University of Texas at Austin argued that the lower startup rate and overall aging of businesses in the economy has contributed to more "jobless recoveries" from recessions. That's partly because the decline in startups has an immediate effect on employment growth, but also because over time this decline has shifted the composition of the economy toward older firms, which tend to respond less to business cycles.

"In the recovery to a business cycle, we don't expect older firms to expand as quickly as the business environment improves," says Pugsley.

Fewer startups could also hurt productivity growth. Austrian-born economist Joseph Schumpeter popularized the term "creative destruction" to describe the process in which capital and labor are reallocated from failing firms to new ones. As startup rates have fallen, businesses have become less responsive to changes in productivity, and the pace of job reallocation has slowed, according to a 2020 article in the *American Economic Review* by Haltiwanger, Jarmin, Miranda, and Ryan Decker of the Federal Reserve Board of Governors. They concluded that if the pace of job reallocation had remained the same as in the early 1980s, total factor productivity (a measure of the overall productive efficiency of the economy) in the 2000s would have been about 33 percent larger.

Startup Surge

Applications for new IRS Employer Identification Numbers



NOTE: Counts are the quantity of federal Employer Identification Number (EIN) applications. The Census Bureau classifies high-propensity businesses as those most likely to hire employees, based on their indications of intent to hire in their EIN applications and other factors.
SOURCE: U.S. Census Bureau Business Formation Statistics

AN UNEXPECTED RECOVERY

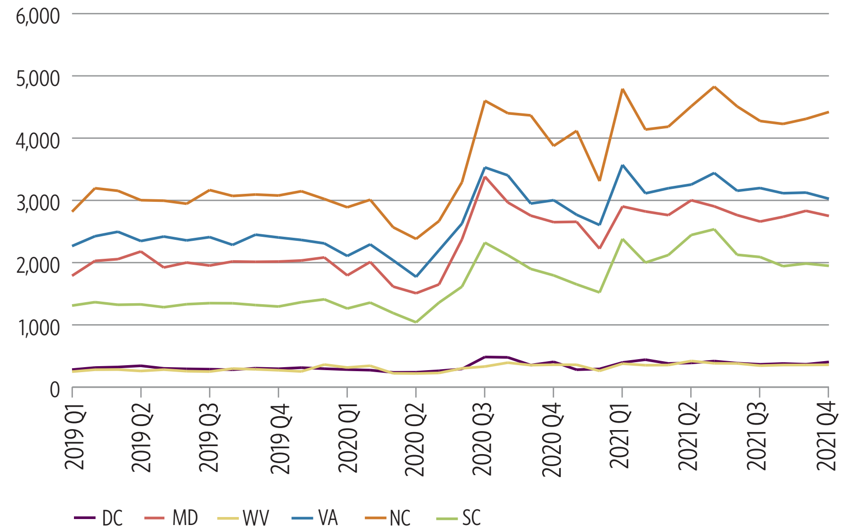
There was every reason to expect that the startup shortfall would continue through the pandemic. The climate for starting a new small business certainly didn't look very hospitable in the spring of 2020. Large sectors of the economy were shut down in an effort to slow the spread of the virus, and even in the absence of local mandates, demand for in-person services like dining out, travel, and hospitality was severely depressed as many consumers stayed away to avoid infection.

After an initial drop, though, applications for new businesses quickly surged. From a low point of nearly 235,000 in April 2020, applications for new business EINs more than doubled to nearly 553,000 just a few months later. Over the past year, monthly applications have continued to come in at a pace faster than any time since the start of the data series in 2004.

The industry that saw the biggest spike in applications was retail trade — specifically, online retail. While e-commerce has been around for decades, in 2019 it still only accounted for

Entrepreneurship Across the Region

High-propensity business applications in the Fifth District



NOTE: Counts are the quantity of federal Employer Identification Number (EIN) applications. The Census Bureau classifies high-propensity businesses as those most likely to hire employees, based on their indications of intent to hire in their EIN applications and other factors.

SOURCE: U.S. Census Bureau Business Formation Statistics

11 percent of total retail sales in the United States. But in 2020, online sales jumped by about 32 percent. With many brick-and-mortar stores temporarily closed, households went online to do their shopping. At the same time, websites like Shopify and Etsy have made it easier for anyone to open an online business. Both platforms reported significant growth over the last year.

In some places, the pandemic seems to have supercharged preexisting entrepreneurial trends. North Carolina has long had a strong startup climate, but 2020 and 2021 have been record-setting years for new business filings. North Carolina's secretary of state's office recently projected that startups there would exceed 190,000 in 2021. In a survey of these new entrepreneurs, the department found that most of them decided to start their own business to seek new opportunities rather than to replace lost income.

"People are putting their faith in themselves and taking greater control over their own future," says Thom Ruhe, CEO and president of NC IDEA, a private foundation that supports entrepreneurs in North Carolina. Ruhe says they have seen a record number of applications for their programs over the last year.

States across the Fifth District have seen a bump in new business applications, although the increase has been more pronounced in Virginia, Maryland, and the Carolinas than in West Virginia and Washington, D.C. (See chart.)

"After an initial downturn, we've definitely seen an increase in the number of individuals who are seeking assistance to launch a new business," says Jody Keenan, the state director of the Virginia Small Business Development Center, which partners with the U.S. Small Business Administration to help entrepreneurs and small-business owners across Virginia.

WHAT CHANGED?

Why has the startup recovery been so much stronger this time compared to the Great Recession?

One difference is that the initial economic hit of the pandemic was much deeper than the financial crisis. The unemployment rate peaked at 10 percent in 2009 but reached nearly 15 percent in 2020. That means there were potentially more people in need of an alternative source of income who decided to start their own business. The pandemic also disrupted schools and day care services, prompting some parents to find new sources of income that allowed them to work from home and care for their children. Nearly half of the people who started a business on Etsy in 2020 did so because of COVID-19, according to a survey by the company. One in five sellers reported turning to Etsy because they lost their job or were unable to find work, while another 8 percent said they were unable to work because they had to care for a family member. To be sure, some of these entrepreneurs may have preferred to stick with a wage-earning job, so it is possible that not all of this startup activity will prove to be optimal for the economy.

Whether someone chooses to become an entrepreneur out of necessity or from a desire to be his or her own boss, starting a new business takes capital. It is perhaps unsurprising, then, that economists have found that wealthier individuals are more likely to become entrepreneurs. Unlike in most recessions, many households actually became wealthier during the pandemic. The personal savings rate jumped from around 7 percent before COVID-19 to nearly 34 percent in April 2020. Savings fell back to pre-pandemic levels by summer 2021, but they remained elevated for much of the past year.

The surge in savings was thanks in part to multiple rounds of stimulus checks sent out to the majority of American households. Additionally, many households postponed spending on travel and dining out during the pandemic. Some of that spending shifted to durable goods, but some simply banked money they weren't spending on services. These savings would help cover the startup costs to open a business.

Another source of capital for entrepreneurs is the equity in their homes. Unlike in the Great Recession, home prices have appreciated dramatically over the past year. According to the S&P/Case-Shiller U.S. National Home Price Index, home prices in July 2021 were nearly 20 percent higher than in July 2020.

These differences could explain the current rise in business applications, but economists have also identified long-running factors that appear to have contributed to the depressed startup rate in recent decades, and those haven't changed. In a recent paper with Fatih Karahan of the New York Fed, Şahin and Pugsley argued that much of the decline in new businesses since the late 1970s can be explained by demographics.

"There is an incredible decline in the growth rate of the labor supply over the exact same period where you see the decline in the business entry rate," says Pugsley. The postwar baby boom and the entry of more women into the workforce boosted the labor supply in the 1960s and 1970s, but those forces began to wane by the 1980s, when the startup rate also began to decline.

Pugsley explains that there is a strong economic argument why these two trends should be linked. More workers means downward pressure on wages, initially making existing businesses more profitable. It also makes it more enticing for new businesses to enter the market. As a result, the number of businesses grows as labor demand expands to meet labor supply. These forces work in reverse when the labor supply shrinks.

Other researchers have also pointed to growing market power among incumbent firms as a force that is depressing startups. (See "Are Markets Too Concentrated?" *Econ Focus*, First Quarter 2018.)

Evans of Aries says that in some ways, the opportunity cost of becoming an entrepreneur has gone down. Entrepreneurs can get access to health insurance without an employer, and the gig economy provides a safety net for them to fall back on if their idea doesn't pan out. On the other hand, he believes it has become harder to break into markets with large incumbent firms and to build a startup that lasts.

"Most new companies underestimate what it takes to change a consumer habit," he says. "They may be offering a better way to do something, but that doesn't necessarily lead to adoption."

LOOKING AHEAD

The Census Bureau's Business Formation Statistics also offer another clue about the future of startups. When registering for an EIN, applicants indicate whether they plan to hire workers and pay wages or not. Based on this and other characteristics, the Census Bureau classifies new business filings that are likely to have a payroll as "high-propensity business applications."

A recent article in *AEA Papers and Proceedings* by Haltiwanger, Emin Dinlersoz of the Census Bureau, Timothy Dunne of the University of Notre Dame, and Veronika Penciakova of the Atlanta Fed found that while both high-propensity and nonemployer applications rebounded after the sharp decline in spring of 2020, the surge in nonemployer applications has been much stronger.

It's hard to say for sure how many of these nonemployer businesses will contribute to job creation, but historically that number has been low. In a 2019 article, Nikolas Zolas of the Census Bureau along with Miranda and Fairlie found that very few nonemployer startups go on to hire anyone else. If they do, it typically happens within the first year after the business is created.

In addition, there's a question of how many of these nonemployer firms will endure at all. Miranda, Zolas, and Fairlie also found that nonemployer startups have a much lower survival rate than young firms with employees. In their sample, fewer than a quarter made it to year five. This suggests that a significant share of the post-pandemic startup surge may not last.

"We don't know how 'sticky' these new business starts will be," says Keenan of the Virginia Small Business Development Center. "Some people start something to fill an immediate need, and then when the economy recovers, if their business hasn't been as fruitful as they wanted it to be, they may jump back into the job market."

"While we have seen a significant uptick in new businesses, many are not surviving or thriving," says Jay Nwachu, president and CEO of Innovation Works in Baltimore, which supports entrepreneurs who serve the most distressed neighborhoods in the city. "Some people might be starting businesses, but their ability to grow that business is going to face the same challenges as before because the infrastructure didn't get any better as a result of the pandemic."

But others point to the pandemic inspiring more people to take a chance on their own ideas. Bigelow of CED has spent three decades in the Research Triangle of North Carolina both starting his own companies and helping other entrepreneurs get started. He says that in the past, many people preferred to go work for big corporations. But now, more business schools are teaching entrepreneurship, and he sees a greater interest in people taking the risk to start their own venture.

"I think 20 years ago if you said you were an entrepreneur, most people would have thought that it was because you couldn't get hired," says Bigelow. "Now, people are leaving corporations to start their own business not because they were laid off, but because they see an opportunity and they want to control their own destiny." **EF**

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