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Regain Its Entrepreneurial Edge**

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Start-Up Slowdown

How the United States Can Regain Its Entrepreneurial Edge

Robert Litan

Americans like to think of their country as a cradle of innovation. After all, the United States has produced many of the world's finest entrepreneurs, from Andrew Carnegie and Henry Ford to Steve Jobs and Mark Zuckerberg. The American obsession with innovation has even invaded popular culture. *Shark Tank*, a reality television show in which entrepreneurs pitch to potential angel investors, has reached its sixth season and draws more than six million viewers a week. *Silicon Valley*, a new comedy on HBO, follows the founders of a technology start-up as they attempt to strike it rich. Meanwhile, the near-celebrity status of prominent tech entrepreneurs, such as Zuckerberg and Elon Musk, has spurred interest in the so-called STEM subjects—science, technology, engineering, and math—and in entrepreneurship more generally.

The numbers, however, tell a different story. Over the past 30 years, the rate of start-up formation in the United States has slowed markedly, and the technology

industry has come to be dominated by older companies. This presents a risk to innovation, because the most transformative leaps forward tend to come not from established firms but from entrepreneurs with little to lose. Indeed, start-ups commercialized most of the seminal technologies of the past several centuries, including the car, the airplane, the telegraph, the telephone, the computer, and the Internet search engine. If the United States wishes to reclaim its status as an innovation hub, it must reform a wide swath of policies—including those covering immigration, business regulation, health care, and education—to support new businesses.

A NATIONAL DECLINE

Data on start-ups in the United States were not regularly compiled until 2008, when the U.S. Census Bureau created the Business Dynamics Statistics database, which tracks firm start-ups and shutdowns across the country. Using the data from 1977 to 2012, my colleague Ian Hathaway and I have published a series of reports for the Brookings Institution highlighting a startling observation: the ratio of new firms to all firms, or the “start-up rate,” has been steadily decreasing. In 1978, start-ups—defined in the database as companies less than a year old—accounted for nearly 15 percent of all U.S. firms; by 2011, that figure had slipped to just eight percent. For the first time in three decades, business deaths exceeded business births.

This national decline mirrored similar shifts in all 50 states and in all but one of the country's 366 largest metropolitan centers. This includes California, with its two wellsprings of innovation, Silicon Valley and the Los Angeles–Orange

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County region, where entrepreneurship rates once soared above the national average. The downward trend has affected all major industries, even the life-sciences sector, which includes pharmaceutical and medical-device businesses and has traditionally played a major role in new job creation. In 1990, around 2,600 new life-sciences firms started up, a number that grew to roughly 3,000 in 1997; by 2011, that number had fallen to 1,995.

Fewer start-ups has meant fewer high-growth firms, defined by the Organization for Economic Cooperation and Development as companies that experience three consecutive years of at least a 20 percent increase in the number of people they employ. According to researchers at the U.S. Bureau of Labor Statistics, the percentage of U.S. firms that met that criterion dropped from roughly three percent in 1994–97 to 1.5 percent in 2008–11. This drop is likely related to the decline in start-ups that took place during the same period.

These changes are surprising not only because they run counter to the image of the U.S. economy as highly entrepreneurial but also because they took place during a revolution in information technology that substantially lowered the costs of launching and expanding new businesses, thanks to cheaper software and hardware, a more global Internet, and the savings afforded by data storage in the “cloud.” Granted, the Census Bureau’s data set excludes firms where the founder is the only employee, which ignores the large and growing number of people who write smartphone applications or sell goods on online platforms such as eBay or Etsy. But there is a good reason for this exclusion: although individual entrepreneurs deserve applause, they

do not benefit the economy the way larger firms do. Firms with at least one employee besides the founder have the potential to grow and, since 1980, have accounted for the vast majority of new jobs in the United States.

As newer firms have become scarcer, the number of older firms has multiplied. The proportion of U.S. companies considered mature, meaning at least 16 years old, rose from 23 percent of all firms in 1992 to 34 percent in 2011. Over the same period, the percentage of the work force employed at mature firms rose as well, from 60 percent to 72 percent. An optimist might conclude that the U.S. economy has simply rewarded economies of scale. In this view, a greater share of older firms represents a net benefit, since firms with more experience are more likely to succeed and provide stable employment.

But aging firms, like aging people, are also more risk averse. When they innovate, they are more likely to aim for incremental improvement rather than creative destruction or disruption. They also tend to be larger, more bureaucratic, and less flexible than start-ups when faced with changing technology and shifting consumer preferences. And older, more entrenched firms are harder to compete with than younger ones, which may explain why a larger share of older firms has coincided with a smaller share of start-ups.

Although similar data do not exist for firms in other countries, there is reason to worry that the United States may fall behind. The Organization for Economic Cooperation and Development began publishing global data on start-up rates in 2011, but the data go back only to 2006, two years before the



Upwardly mobile: at a programming conference in San Francisco, June 2014

onset of the global economic crisis. Still, the data are instructive. Despite the fact that start-up rates across member countries fell on average, the rates in several countries—notably Australia, Portugal, Sweden, and the United Kingdom—have exceeded their pre-crisis levels. Put simply, if the United States cannot reverse its entrepreneurial slump, it risks losing its status as a global leader in innovation.

JUMP-STARTING BUSINESS

Some have suggested that start-up rates can be explained by demographic trends. Hathaway and I have shown, for example, that much of the variation in start-up rates across U.S. states may be linked to differential rates of population growth. If the rate of U.S. population growth continues to decline, as it has done fairly consistently since 1992, lower

national rates of start-up formation may be inevitable. On the other hand, over the next decade, members of the over-size millennial generation will begin to enter their late 30s and early 40s, the peak ages to start a business. As they do so, start-up rates may begin to pick up, countervailing sluggish population growth. But policymakers should not wait ten years to see which of these trends wins out. Instead, there is much Washington can and should do now to encourage entrepreneurship.

First, Washington should reform U.S. immigration law. Immigrants, who tend to be less risk averse than the general population, have historically proved twice as likely to launch businesses as native-born Americans. According to a team of researchers at Duke University, immigrants were behind one in four technology start-ups between 1995 and 2005. In 2005,

the researchers found, companies led by immigrant entrepreneurs employed 450,000 workers and generated \$52 billion in sales. Yet the U.S. government has made it difficult for immigrants to stay in the United States, despite their clear benefit to the economy. The H1-B visa, for example, which allows companies to employ foreign workers in specialty fields, lasts just six years and can be obtained only through a lottery system. The H1-B system should be updated, but Congress should also make it easier for immigrant entrepreneurs to secure long-term visas and permanent-resident status. The bipartisan immigration bill that passed the Senate in 2013 took a step in this direction by creating an easier path to permanent residency for foreign students who earn a master's degree or a doctorate in one of the STEM fields. But the legislation has languished in the House of Representatives, where opponents want more piecemeal reform—or no reform at all. Given the political resistance to comprehensive reform, policymakers should prioritize easing restrictions on immigrant entrepreneurs, the benefits of which should be easy to sell to politicians on both sides of the aisle.

The more immigrants the United States turns away, the more it forfeits its entrepreneurial edge. Other countries, most notably Chile, have already begun to take advantage of Washington's flawed immigration policy. In 2010, Chile began paying foreign entrepreneurs to visit the country for six months and interact with locals. The program, dubbed Start-Up Chile, offered foreigners \$40,000, plus free office space, Internet access, and mentorship, and asked only that they consider moving to Chile perma-

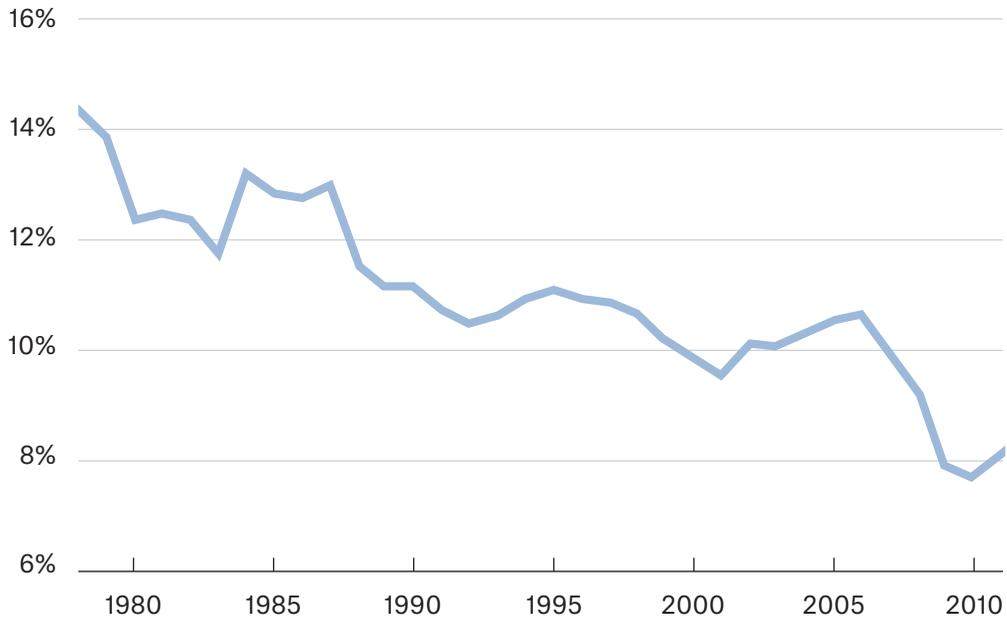
nently. As of June 2014, the program had attracted more than 12,000 applicants from 112 countries and admitted 810 from 65 countries. Thus far, 132 of the resulting companies have opted to stay in Chile and have already brought in around \$26 million in capital; global investors have begun to refer—only half-jokingly—to “Chilecon Valley.” Other countries, particularly the United States, should take note.

In addition to following through with immigration reform, Washington needs to make it easier for people who are not hugely wealthy to invest in start-ups. In particular, the Securities and Exchange Commission should make it simpler for investors to buy equity in start-ups through so-called crowdfunding platforms, which allow new companies to tap a more economically diverse investor base online and to raise equity without first hiring an investment bank to underwrite their stock.

Congress took a step in this direction in April 2012 when it passed the Jumpstart Our Business Startups Act, which made it legal for companies to raise up to \$1 million annually through crowdfunding. The law set a cap on the amount of equity individual investors could purchase to limit the amount of risk they would assume. The law also required firms to disclose basic information to potential investors, including the nature of the business, the identity of its directors, and any pertinent risk factors. The U.S. Securities and Exchange Commission is set to finalize the rules for the law's implementation by the end of 2014, and Congress should ensure that the rules do not excessively burden investors or companies looking to utilize the crowdfunding platforms, for example,

Start-Ups Winding Down

Percentage of U.S. Firms Less Than One Year Old, 1978–2011



SOURCE: U.S. Census Bureau, Business Dynamics Statistics; calculations by Ian Hathaway and Robert Litan.

by further capping investment. If the United States wishes to encourage more risk taking by those who launch companies, it should also tolerate more risk taking by those who fund them.

More broadly, Congress should regularly reevaluate and update federal regulations, many of which pose unnecessary barriers to entry for new firms. Federal regulations are expensive, often costing small businesses thousands of dollars per employee, and such costs pose a distinct disadvantage for younger and smaller firms, which rarely have the resources to hire full-time attorneys or compliance officers. To facilitate the dismantling of unnecessary regulations, Congress should include sunset provisions on all major federal rules so that every ten to 15 years or so, Congress is

forced to reevaluate its regulations, removing those that do not pass a cost-benefit test and improving those that do. Congress could also authorize a bipartisan panel of experts to identify outmoded regulations and submit them on a regular basis to lawmakers for an up-or-down vote.

Historically, the U.S. health insurance system has also worked to the disadvantage of start-ups. Here, however, the news is mostly good. Prior to the passage of the Affordable Care Act in 2010, employees had a disincentive to leave established firms that gave them health insurance without regard to their health status. By prohibiting insurance companies from taking preexisting conditions into account when setting rates and by requiring everyone to buy insurance, the act encour-

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but all leaders
are readers.**

- Harry S. Truman

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ages the employee mobility necessary for new business formation. If Congress modifies the act in the future, it must keep the provision protecting those with preexisting conditions, or risk discouraging employees, once again, from launching new firms. It should also keep—or find a workable alternative to—the individual mandate, which expands insurance populations to cover the higher costs of those with preexisting conditions. Otherwise, insurance pools run the risk of unraveling.

Of course, there is a limit to what government can do to support start-ups and entrepreneurs; the private sector must do more as well, and investors should experiment with ways to support new businesses. One new approach, the establishment of so-called business accelerators, represents a welcome step. In return for a small share of equity in qualifying start-ups, accelerators provide seed money, free office space, and access to potential funders. Launching a business can be a lonely experience, but accelerators surround entrepreneurs with peers and mentors, providing a sense of community usually found only at established companies. Accelerators have popped up not just in Silicon Valley but throughout the country—in Austin, New York, St. Louis, and Washington, D.C.—and the initial anecdotal results appear promising.

CLOSING THE GAP

Even if the United States successfully boosts the formation of new companies, it will have to contend with the dark side of innovation: the wealth inequalities that sometimes accompany technological change. Advances in robotics and information technology, in particular, have

increased the demand for employees with strong technical backgrounds and curtailed the need for unskilled labor. Some economists believe that the revolution in information technology may end up benefiting only those workers whose salaries place them in the top ten to 20 percent of the income spectrum, thus widening the already substantial income gap between the wealthy and the poor.

It is not yet clear what impact an influx of start-ups would have on this problem—but there is reason to suspect it could make things worse. In recent years, hugely profitable start-ups have created relatively few new jobs and done little to spread the wealth. The popular text-messaging service WhatsApp employed only 55 people when Facebook acquired it for \$19 billion last year; Instagram, a photo-sharing social networking site, had only 13 employees when Facebook bought it for \$1 billion in 2012. If the majority of new companies resemble these successful technology firms, then any start-up renaissance will only magnify inequality. In addition, innovations in automation, robotics, and data processing could eliminate millions of jobs in the coming decades, pushing many workers into lower-wage positions or out of the labor force altogether.

Closing the wage gap, or at least reversing its growth, will require significantly overhauling public education systems so that they can better teach technological literacy. Being able to write computer code will soon be as important as being able to write in English, and students should begin learning to code as early as elementary school. Better education represents the best chance to level the playing field and expand the number

of potential entrepreneurs.

An entrepreneurial revolution will require more than just coders, however. As the Nobel Prize-winning economist Edmund Phelps has argued, innovation requires the teaching of not just technical skills but also the humanities and the arts. Had Jobs not taken a calligraphy class at Reed College, for example, he might not have insisted on including a wide array of fonts in Apple computers—an innovation that gave his company an early edge over its competitors. Since Washington has little control over education policy at the state level, reform will have to proceed incrementally through experimentation in local school districts. The federal government and nongovernmental organizations should support and publicize these experiments so that states can learn from their successes and failures.

Entrepreneurs create the future and boost national economies. For the United States, economic strength is key to maintaining and strengthening its status as a world leader. Rousing the country from its entrepreneurial slumber will require deep structural change, but the stakes are high. In the balance hangs the welfare of future generations and the global leadership of the United States. 🌐