

# Innovation and Entrepreneurial Activity are Key to Economic Growth

Technological innovation—meaning the development of new, more effective or efficient products and processes—is responsible for much of the productivity growth that enables rising prosperity. Entrepreneurial activity—starting a new business venture—is an important way for technological innovation to enter the economy and raise overall productivity. It’s also a major source of job growth, putting new generations of young people to work and keeping the workforce fully employed.

That said, it’s critical to remember that not all small businesses are entrepreneurial. In fact, many small businesses remain small and create few jobs, and even new small businesses may be little more than cookie-cutter replications of existing small firms. Policies aimed at raising productivity should focus on new firms that are truly innovative and have the potential to experience rapid growth. At the same time, new firms are clearly not the only source of innovation. Large businesses often have sizeable resources to invest in research and development, leading to significant technological improvements.



The public sector clearly has important roles to play in stimulating innovation and productivity:

- **Many of the technological advances that have been important drivers in the private sector have their roots in public sector research and development, in research at public universities, and in government support of private research.** Recent examples include the search algorithm developed by Google (the origins of which can be traced to a National Science Foundation grant to Stanford University), the Internet, and GPS.<sup>1</sup> A study of seven major industries found that on average 15 percent of the new products and 11 percent of new processes over a nine year period could not have been developed without recent academic research, and another 7 or 8 percent were developed with very substantial aid from such research.<sup>2</sup> Another study found that in 2011, 53 percent of basic research was funded by government, and 77 of the 100 most important innovations in 2011 had been received

federal funding.<sup>3</sup>

- **Investment in public education is important.** A recent study of why some metropolitan regions have higher rates of business start-ups than others found that the most significant factor was the level of education. A higher proportion of the population with a college degree, and a higher proportion with at least a high school diploma, both lead to a higher rate of new business formation.<sup>4</sup>
- **Income inequality reduces entrepreneurship.** A recent study found that “America’s middle class plays a critical role in nurturing the people and social environment that create successful entrepreneurs...[M]iddle class families account for 60 percent of new business ventures.”<sup>5</sup> The rising inequality of recent decades and the financial stresses on the middle class, however, resulted in stagnation in the rate of new business formation in the 2000s, this study found. The authors conclude: “[T]he structural policies that have led to unequal economic outcomes and opportunities for American families over the past decades are in fact inhibiting the development of the critical entrepreneurial sector of the U.S. economy.”
- **Public policies that reduce risk increase the opportunities for entrepreneurial activity.** Starting a business is inherently risky, and measures that reduce that risk can increase the number of individuals taking the leap to self-employment. Access to health care is an important example. Those with health insurance through a spouse, or those with Medicare, are significantly more likely to become self-employed.<sup>6</sup> Similarly, high levels of college debt make it riskier to forego employment for a period of time to start a business, another reason for increasing college affordability. And the availability of work supports such as child care assistance can make it possible for one of the adults in a family to become self-employed while the other works.
- **States can nurture entrepreneurial activity through education and technical assistance.** William Schweke has argued that a comprehensive state policy to nurture entrepreneurialism would include entrepreneurial education programs at the secondary school level as well as at community colleges and universities, along with technical assistance.<sup>7</sup> Timothy Bartik has argued that “entrepreneurship training has more scientifically rigorous evidence of effectiveness than any other economic development policy.”<sup>8</sup>

1. □ Robert D. Atkinson and Stephen J. Ezell. *Innovation Economics: The Race for Global Advantage*. Yale University Press, 2012, p. 139.

2. □ Edwin Mansfield. “Academic research and industrial innovation: An update of empirical findings.” *Research Policy*, vol. 26, 1998, pp. 773-776.

3. □ Jeff Madrick, “The Anti-Economist.” *Harper’s Magazine*, November 2013, pp. 13-15.

4. □ Yasuyuki Motoyama and Jordan Bell-Masterson. “Beyond Metropolitan Startup Rates: Regional Factors Associated with Startup Growth.” Ewing Marion Kauffman Foundation, January 2014.

5. □ Camilo Mondragón-Vélez. *How Does Middle-Class Financial Health Affect Entrepreneurship in America?* Center for American Progress, May 2015.

6. □ Jennifer Erickson and Adam Hersh. "1 Million Missing Entrepreneurs: What Data Reveal About the Lost Class of American Entrepreneurs and Solutions to Bring Them Back." Center for American Progress, May 2015.

7. □ William Schweke. "An Economic Development Strategy for the 21st Century: The Role of State Policy in Strengthening the Economy." *In Growing the State Economy: Evidence-Based Policy Options*. Wisconsin Family Impact Seminars, University of Wisconsin - Madison, February 26, 2009.

8. □ Timothy Bartik, "What Works in State Economic Development?" *In Growing the State Economy: Evidence-Based Policy Options*. Wisconsin Family Impact Seminars, University of Wisconsin - Madison, February 26, 2009.