

The background features a stylized American flag with a red, white, and blue color scheme. A large, semi-transparent portrait of Ewing Marion Kauffman, a man with a beard and mustache, is overlaid on the right side. A thick red curved line sweeps across the image from the top left towards the bottom right.

2014

# STATE OF ENTREPRENEURSHIP

ADDRESS

February 12, 2014

Ewing Marion  
**KAUFFMAN**  
Foundation



Ewing Marion  
**KAUFFMAN**  
Foundation

*This report was produced by the Kauffman Foundation Research & Policy Department. Thank you to Philip Delves Broughton, Lacey Graverson, Ian Hathaway, Robert Litan, and others for their feedback and assistance. Thank you also to the numerous Kauffman Foundation grantees and partners—as well as our colleagues—to whom we are indebted for a good deal of the research, data, and ideas used in this report.*

# Toward America's New Entrepreneurial Growth Agenda

---

## Summary

In 2013, the United States economy appeared to have at last emerged from the hangover of the Great Recession, with economic indicators picking up across the board and stock markets roaring ahead. For good reason, there is a great deal of optimism regarding economic growth. At the same time, perils lurk and several long-term challenges give cause for economic pessimism.

Few of these challenges—long-term budget deficits, entitlement spending, global competition, growing inequality, and middle-class stagnation, among many others—can be addressed or solved without sustained and broad-based economic growth. And that kind of growth will not come about without entrepreneurship: the formation and growth of new companies. Young firms and growing firms are a principal source of net job creation in the United States, and they also help drive productivity and innovation. The dynamism that has always been a hallmark of the American economy is, to a great extent, premised on a healthy state of entrepreneurship.

As this report discusses, however, the rate of new business creation in the United States has been falling for some time, even predating the Great Recession. Likewise, the dynamism of companies and employees—the pace at which businesses shrink and grow and at which individuals change jobs—also has been falling. This is true across the board, including high-technology sectors of the economy, an important source of dynamism and growth. Muted levels of entrepreneurship and dynamism are related to—and even help account for—stagnant wage levels, slowing productivity growth, and growing job polarization.

Despite an economic recovery that finally has been gaining steam, there is a need for new sources of

economic growth in the United States. In particular, we need *entrepreneurial* growth, with more new and growing businesses creating new types of products and jobs across the entire economy.

The Kauffman Foundation is kicking off its New Entrepreneurial Growth Initiative with the 2014 State of Entrepreneurship event and this report. The multi-year initiative will include conferences, seminars, and commissioned research. All of these activities will be geared toward identifying ways the United States can attain a new, faster-growing, and more broad-based entrepreneurial economy, with the goal of producing a New Entrepreneurial Growth Agenda by early 2016. That agenda will include our ideas and the collective suggestions of our grantees, partners, and network for public policies and private actions that can address the key challenges and opportunities we see before us.

### Immediate Policy Implications

- Create a new Startup Visa for immigrant entrepreneurs.
- In existing proposals:
  - Reconsider the financial requirements for Startup Visa eligibility.
  - Increase the number of visas created by the Startup Visa provision.

- Clarify the administrative rules regarding foreign-born student entrepreneurs.
- Fully fund and expand the Survey of Business Owners.
- Proceed carefully with implementation of Title III of the JOBS Act to ensure that equity crowdfunding is played out in the market, not in the regulations.
- To loosen “entrepreneurship lock,” design entrepreneur-friendly policies when implementing the Affordable Care Act at the state and federal levels.

### Key Challenges to Explore

- What is driving the slowdown in entrepreneurship and dynamism in the United States?
  - With entrepreneurs seeking new and alternative routes of financing, how can regulations protect and enable those?
  - With growing opportunities in other parts of the world, how can America keep its entrepreneurial appeal among potential immigrants and hold onto highly educated individuals already here?
  - With young companies acting like the great American shock absorber, allowing for labor-market entry of more marginalized segments of the labor force, what are the long-term implications of an entrepreneurship slowdown on unemployment and broader job-market dynamics?
  - Will today’s youth be able to achieve their entrepreneurial potential? As the most highly educated (traditionally and entrepreneurially) cohort yet, today’s twenty-somethings bring a wave of potential but are saddled with escalating college costs, employers often looking more for contractors than employees, and diminished hope of achieving traditional milestones of independence in short order.
- Good policy decisions cannot be made on the basis of poor or nonexistent data. How can national, state, and regional leaders receive more localized, relevant statistics that provide timely reporting of key entrepreneurial indicators?
  - How can entrepreneurship support organizations better benchmark and identify programs that lead to success?
  - How can our educational institutions continue to adapt to changing talent and skill demands?
  - How can improvements in data, including integration of education and workforce statistics, help inform that process?

## I. An Economy Recovers: Signs of Optimism and Growth

The American economy closed out 2013 on a series of high notes, with various economic indicators pointing in a positive direction. Personal income, consumer spending, and gross domestic product all ended the year with increases.<sup>1</sup> As shown in Figure 1, the unemployment rate, which peaked at 10 percent in October 2009, had fallen to 6.7 percent at the time of this writing.<sup>2</sup> And job creation in 2013 was strong; two million new jobs were established, exceeding the amount for every year but one during the 2002–07 expansion.<sup>3</sup> The Chicago Federal Reserve Bank’s National Activity Index showed economic growth above the historical trend, and economic forecasters raised their estimates for future economic growth. Finally, economic activity in nearly every state marched forward.<sup>4</sup>

The Federal Reserve acted on these auspicious economic data, announcing in early December that it would begin to incrementally reduce its massive bond-purchasing

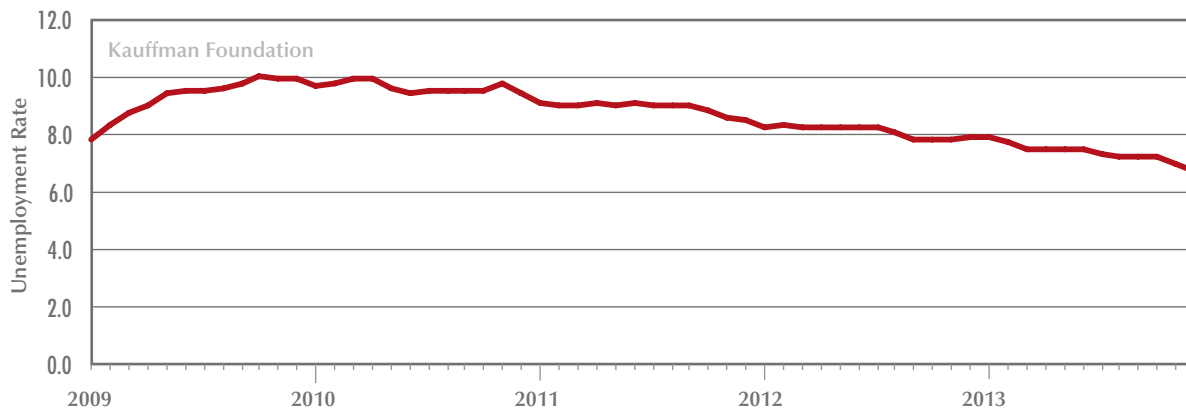
1. Josh Mitchell and Neil Shah, “U.S. Economy Starts to Gain Momentum,” *The Wall Street Journal*, December 21–22, 2013, p. A1.

2. Bureau of Labor Statistics, at <http://data.bls.gov/cgi-bin/survey/most>.

3. The year ended on a soft note, with employment in December not as strong as expected. This employment report, for various reasons, was perhaps not a particularly accurate view of the job market. Tim Duy, “Employment Report Keeps Policymakers on Their Toes,” *Economist’s View: Tim Duy’s Fed Watch*, January 12, 2014, at <http://economistsview.typepad.com/timduy/2014/01/employment-report-keeps-policymakers-on-their-toes.html>.

4. See <http://chicagofed.org/webpages/publications/cfnai/index.cfm>. See also Bill McBride, “Philly Fed: State Coincident Indexes increased in 46 states in November,” *Calculated Risk*, December 24, 2013, at <http://www.calculatedriskblog.com/2013/12/philly-fed-state-coincident-indexes.html>.

Figure 1  
 Monthly Unemployment Rate from January 2009 to December 2013



Source: Bureau of Labor Statistics

program.<sup>5</sup> This long-anticipated move seemed to confirm the favorable statistics while also giving the country even more reason for optimism.

While these trends are short-term and may not necessarily indicate a deep recovery, particularly for small and new businesses,<sup>6</sup> there also are several promising long-term economic developments, including the U.S. shale gas and oil revolution and the—not unrelated—potential revival of American manufacturing. Improvements in technology and shale gas discoveries and production have led to growth in domestic oil production. In fact, the latest projections for U.S. energy supply and demand released by the Energy Information Administration (EIA) at the end of 2013 suggest that domestic oil production soon will come close to the all-time high registered in 1970.<sup>7</sup>

This development already is driving economic improvements, and is expected to continue to boost

economic growth significantly.<sup>8</sup> Rising production means more direct employment in these industries, as well as indirect effects for other industries and higher state and federal tax revenues.<sup>9</sup> Furthermore, higher production—especially of natural gas—has meant that natural gas prices are falling. Lower prices for natural gas as an energy input into manufacturing will raise productivity and lead to higher production, although these increases will not necessarily be accompanied by a substantial rise in employment.<sup>10</sup> These manufacturing trends, coupled with the “re-shoring” or repatriation of factories and jobs that were sent overseas in the last few decades, have prompted declarations of an American manufacturing renaissance.<sup>11</sup>

The future of U.S. manufacturing, however, likely will look very different than it has historically, as advanced technologies will overhaul its scale and scope. We may, for example, be approaching an age of mass customization, in which technology makes it easier and more valuable, even

5. “2013 Monetary Policy Release for December 18, 2013,” Federal Reserve Bank press release, December 18, 2013, on the Federal Reserve Bank website, <http://federalreserve.gov/newsevents/press/monetary/20131218a.htm>, accessed January 17, 2014.

6. “Small Business Crawls Forward,” National Federation of Independent Businesses, <http://www.nfib.com/article/small-business-optimism-crawls-forward-64539/>, accessed January 24, 2014.

7. Energy Information Administration, *Annual Energy Outlook 2014*, Early Release Overview, December 2013; “EIA: US to approach highest oil production level since 1970,” *Oil and Gas Journal*, December 16, 2013.

8. Jeffrey Sparshott, “Growth Outlook Brighter as Exports Hit High,” *The Wall Street Journal*, January 8, 2014, p. A2.

9. IHS, *America’s New Energy Future: The Unconventional Oil and Gas Revolution and the US Economy, Volume 1: National Economic Contributions*, October 2012.

10. IHS, *America’s New Energy Future: The Unconventional Oil and Gas Revolution and the US Economy, Volume 3: A Manufacturing Renaissance*, September 2013. That job growth, too, is expected to be in high-skill areas, which raises questions about human capital availability and educational preparation. See *infra*.

11. See Boston Consulting Group, “Made in America, Again,” 2011, at [https://www.bcgperspectives.com/content/articles/manufacturing\\_supply\\_chain\\_management\\_made\\_in\\_america\\_again/](https://www.bcgperspectives.com/content/articles/manufacturing_supply_chain_management_made_in_america_again/).

with complex production chains, to customize and focus on niche markets.<sup>12</sup> It is unclear how extensive the impact of developments like 3-D printing or additive manufacturing will be, but the digitization of design and production seems fairly certain to alter the economics of manufacturing in a way that stimulates innovation and job creation.<sup>13</sup>

These developments in energy and manufacturing are anticipated to reshape the economy's trajectory and bode well for entrepreneurship, in particular. New technologies open up possibilities for new firm formation in manufacturing, and lower energy prices could lower the cost of entry across a variety of sectors. Many observers have noted that, relative to others parts of the globe, the United States looks to be well-positioned for strong growth.<sup>14</sup>

## II. Underlying Pessimism and Threats to Economic Health

Despite these positive signs, there remains a good deal of pessimism regarding the health of the American economy. The Great Recession from late 2007 to mid-2009 included a massive financial crisis and a hemorrhaging labor market, engendering a good deal of negativity concerning the country's economic future. The positive indicators reviewed above are not without complications, and several long-term trends suggest threats to the economy over the next several years.

**Short-term concerns.** A deeper consideration of the Federal Reserve's decision to taper its bond-purchasing program, for example, indicates that this move, almost universally interpreted as a "hallelujah moment" for the

otherwise tepid recovery since 2009, also may be cause for concern. While the Federal Reserve's announcement implies a certain amount of confidence in the economy's current state, this change is a sharp reminder that the United States has been undergoing an unprecedented monetary policy experiment over the last five years, and withdrawal of that support is also unprecedented. A recent headline captures this complexity: "Fed's artificial world faces reality check."<sup>15</sup> Indeed, "managing a return to normal monetary conditions without further large-scale instability is going to be quite difficult."<sup>16</sup>

The Federal Reserve's decision was premised on improving economic data, particularly falling unemployment, but related statistics reveal problems here, too. The prolonged three percentage-point decline in the unemployment rate over the last four years has, in part, been driven by a falling labor force participation rate that stood at 62.8 percent in December 2013, the lowest rate since 1978 (as shown in Figure 2).<sup>17</sup> Since rising labor force participation in the second half of the twentieth century (especially the entry of women into the workforce) contributed significantly to economic growth, a slowdown may be a drag on growth.<sup>18</sup> Furthermore, this drop in labor force participation cannot solely be attributed to demographic factors such as the aging population or the prevalence of early retirement; the rate also has fallen among people of prime working age.<sup>19</sup>

A broader measure of unemployment, taking into account discouraged workers and those unwillingly in part-time work, is nearly twice as high as the headline rate, at 13.1 percent.<sup>20</sup> Moreover, long-term unemployment

12. See Peter Marsh, *The New Industrial Revolution: Consumers, Globalization and the End of Mass Production* (Yale, 2012).

13. See, e.g., Neil Gershenfeld, "How to Make Almost Anything: The Digital Fabrication Revolution," *Foreign Affairs*, November/December 2012; John Koten, "A Revolution in the Making," *The Wall Street Journal*, June 11, 2013, p. R1. Chris Anderson, *Makers: The New Industrial Revolution* (Crown, 2012).

14. Daniel Gross, *Better, Faster, Stronger: The Myth of American Decline ... and the Rise of a New Economy* (Free Press, 2012); Josef Joffe, *The Myth of America's Decline: Politics, Economics, and a Half Century of False Prophecies* (Liveright, 2013).

15. "Fed's Artificial World Faces Reality Check," *Financial Times*, December 19, 2013.

16. Martin Wolf, "Asset Managers Could Blow Us All Up," *Financial Times*, December 11, 2013, p. 11.

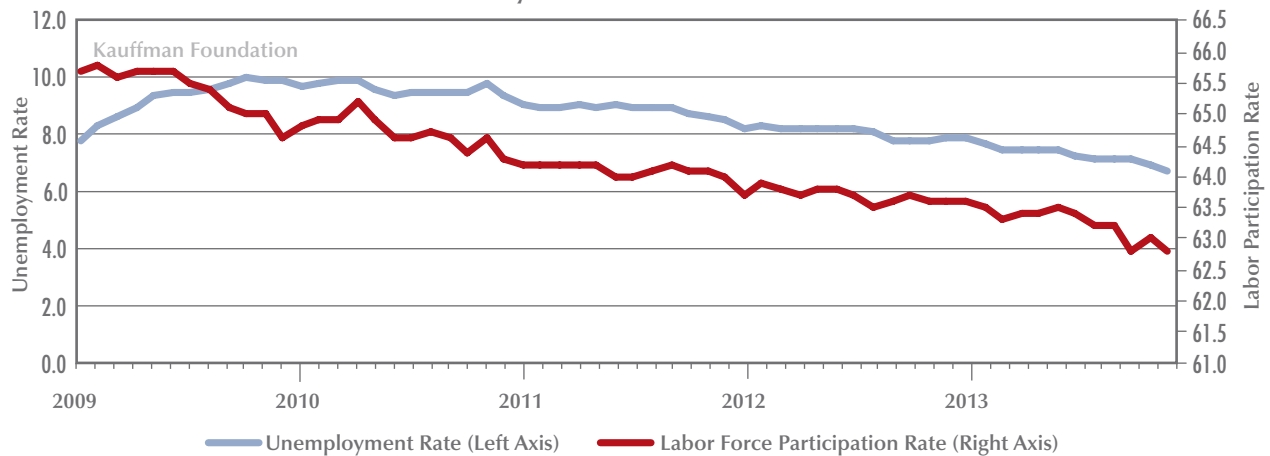
17. Bureau of Labor Statistics: <http://data.bls.gov/timeseries/LNS11300000>.

18. Robert Gordon, "Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds," National Bureau of Economic Research Working Paper, No. 18315, August 2012, at <http://faculty-web.at.northwestern.edu/economics/gordon..l%20US%20Economic%20Growth%20Over.pdf>.

19. For people aged twenty-five to fifty-four, the labor force participation rate has fallen from 83.1 percent when the recession began (and nearly 85 percent in 2000) to 80.7 percent at the end of 2013. Justin Lahart, "In Jobs Drama, Fewer Seek Roles," *The Wall Street Journal*, January 11–12, 2014, p. B14. One explanation might be that, in the face of a poor job market, more people enrolled in school, and there is some evidence for this. Depending on how prevalent this is, the economy could conceivably reap gains later on from an increase in education.

20. Bureau of Labor Statistics, "Economic News Release: Table A-15. Alternative measures of labor underutilization," Last modified January 10, 2014, at <http://www.bls.gov/news.release/empsit.t15.htm>. Matthew Boesler, "Goldman's Jan Hatzius: People Are Looking at the Wrong Unemployment Rate," *Business Insider*, January 16, 2014, available at <http://www.businessinsider.com/jan-hatzius-stresses-u-6-unemployment-2014-1>.

Figure 2  
**Monthly Unemployment Rate and Labor Participation Rate  
 from January 2009 to December 2013**



Source: Bureau of Labor Statistics

is astoundingly high and can have a negative effect on the economy for years, especially when it includes young workers. The 3.9 million long-term unemployed (those out of work for more than six months) constitute 38 percent of all those without jobs.<sup>21</sup>

Stalled economic mobility and rising income inequality also threaten the economy's long-term health. There is growing evidence that socioeconomic status is stickier than it once was; individuals are less likely to climb to higher income brackets or fall into lower ones.<sup>22</sup> And less mobility has contributed to growing inequality: more than 100 percent of the wealth increase in the United States between 1983 and 2009 went to the top 20 percent of

households, with the other 80 percent actually seeing a net decrease in wealth.<sup>23</sup> Median household income—the core economic indicator for broad-based economic growth—has stalled since 1999.<sup>24</sup>

**Long-term uncertainties.** Positive and negative economic trends can, of course, coexist in the short term. It is the long-term threats that are truly a cause for concern. Some observers posit the dawn of “secular stagnation” or a “new normal,” arguing that we have exhausted all the “low-hanging fruit” of economic growth (like a rising labor force participation rate), have reached a technological plateau, and are in for slow growth, and growth that accrues only to the upper slice of society.<sup>25</sup>

21. Bureau of Labor Statistics, “Economic News Release: Employment Situation Summary,” January 10, 2014, at <http://www.bls.gov/news.release/empisit.nr0.htm>.

22. Lane Kenworthy, “It’s Hard to Make it in America,” *Foreign Affairs*, November/December 2012; David Leonhardt, “In Climbing Income Ladder, Location Matters,” *The New York Times*, July 22, 2013, at [http://www.nytimes.com/2013/07/22/business/in-climbing-income-ladder-location-matters.html?\\_r=1&](http://www.nytimes.com/2013/07/22/business/in-climbing-income-ladder-location-matters.html?_r=1&).

23. Erik Brynjolfsson and Andrew McAfee, *Race Against the Machine: How the Digital Revolution is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy* (Digital Frontier, 2012).

24. Neil Irwin, “The typical American family makes less than it did in 1989,” *The Washington Post: Wonkblog*, September 17, 2013, at <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/09/17/the-typical-american-family-makes-less-than-it-did-in-1989/>.

25. “The old understanding was that the world broke through a barrier with the Industrial Revolution of the eighteenth century and that we can grow economically at high rates forever. The new model is that there are periodic technological plateaus, and right now we are sitting on top of one, waiting for the next major growth revolution.” Tyler Cowen, *The Great Stagnation: How America Ate All the Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better* (Dutton, 2011). See also Stephen D. King, *When the Money Runs Out: The End of Western Affluence* (Yale, 2013); Tyler Cowen, *Average is Over: Powering America Beyond the Age of the Great Stagnation* (Dutton, 2013); Ryan Avent, “Secular Stagnation: The Second Best Solution,” *The Economist*, January 21, 2014, at <http://www.economist.com/blogs/freexchange/2014/01/secular-stagnation-1>.

Such long-term bearishness is not unfounded. Productivity, the engine of economic growth, has been slowing.<sup>26</sup> In some ways, the job market underperformed for two decades leading up to the Great Recession. Most employment growth between 1990 and 2008 occurred in the “non-tradable sector,” coming predominantly in government (especially state and local), health care, retail, accommodation and food service, and construction.<sup>27</sup> These are, by and large, low value-added and low-wage sectors, and this employment pattern helps explain overall wage stagnation and falling productivity. Ultimately, as Nobel-laureate Michael Spence and Sandile Hlatshwayo explain, this situation presents the “potential for a longer-term structural employment problem.”<sup>28</sup>

Other researchers have amply documented the phenomenon of job polarization, with job creation in low-skill and high-skill occupations, but a hollowing out of the middle. In response to automation and computerization, there has been a reallocation of labor out to the poles of occupational skill.<sup>29</sup> Technological progress and big data-driven advances continue to spread computerization to an ever-expanding sphere of employment. Demographic changes, too, may be a drag on growth as the country ages. In 1998, workers aged twenty-five to forty-four accounted for 53.1 percent of American employment; by 2010, that share had fallen to 43.9 percent. Meanwhile, the employment share of workers aged forty-five to sixty-four rose from 27.5 percent to 37 percent.<sup>30</sup>

In this telling, the Great Recession was so severe in its effects because it was both cyclical and symptomatic of a structural break in the U.S. economy. Its effects have lingered—and could persist—because it was preceded by one of the weakest expansions on record. Some observers already view the 2000–10 period as a “lost decade” and forecast an aggregate demand shortfall because we should not expect (or hope for) another consumer boom driven by rising household debt.<sup>31</sup>

Where, then, can the United States look for sustained and broad-based economic growth over the long term? Is entrepreneurship the answer?

### III. Entrepreneurship: Contradictory Trends, Uncertain Future

Historically, entrepreneurship and innovation have been the principal sources of economic growth, technological progress, productivity, and rising standards of living.<sup>32</sup> Entrepreneurship plays an important role, for example, in net new job creation. Recent research indicates that “high-growth (incumbent) businesses contribute about 50 percent of job creation and startups account for about 20 percent of job creation”<sup>33</sup> Most of those high-growth companies, however, also are entrepreneurial firms under six years old.

26. Andrew Flowers, “The Productivity Paradox: Is Technology Failing or Fueling Growth?” *EconSouth*, Federal Reserve Bank of Atlanta, Q4 2013.

27. Michael Spence and Sandile Hlatshwayo, “The Evolving Structure of the American Economy and the Employment Challenge,” *Comparative Economic Studies*, December 2012.

28. Michael Spence and Sandile Hlatshwayo, “The Evolving Structure of the American Economy and the Employment Challenge,” *Comparative Economic Studies*, December 2012.

29. Frank Levy and Richard J. Murnane, “Dancing with Robots: Human Skills for Computerized Work,” *Third Way*, 2013; David Autor, “The Polarization of Job Opportunities in the U.S. Labor Market,” Hamilton Project and Center for American Progress, April 2010, at <http://economics.mit.edu/files/5554>. Interestingly, nearly all of the decrease in middle-skill jobs and reallocation to low- and high-skill jobs has taken place during recessions, specifically those of 1990–91, 2001, and 2007–09. Middle-skill jobs never recover the cyclical losses. As discussed below, this points to changing occupational skill demands, not simply shortcomings in educational attainment. See Nir Jaimovich and Henry E. Siu, “The Trend is the Cycle: Job Polarization and Jobless Recoveries,” National Bureau of Economic Research, Working Paper, No. 18334, August 2012.

30. Henry R. Hyatt and James R. Spletzer, “The Recent Decline in Employment Dynamics,” Center for Economic Studies, U.S. Census Bureau, March 2013. See also Dane Stangler and Daniel F. Spulber, “The Age of the Entrepreneur: Demographics and Entrepreneurship,” i4j Summit, March 2013; Robert Gordon, “Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds,” National Bureau of Economic Research Working Paper, No. 18315, August 2012, at <http://faculty-web.at.northwestern.edu/economics/gordon.../1s%20US%20Economic%20Growth%20Over.pdf>.

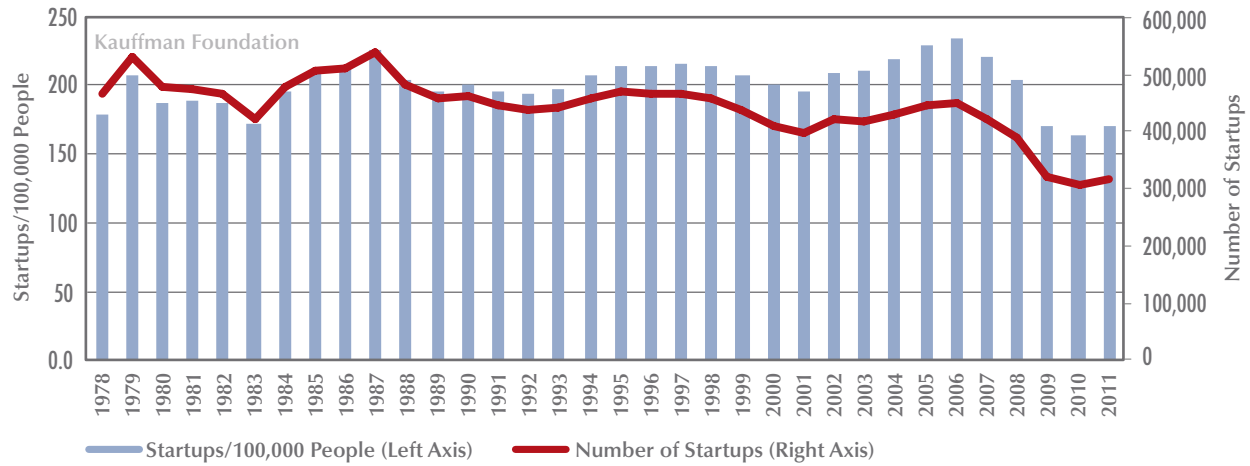
31. See Menzie Chinn and Jeffrey A. Frieden, *Lost Decades: The Making of America's Debt Crisis and the Long Recovery* (Norton, 2011). “[D]uring the good old days demand was supported by an ever-growing burden of private debt, which we neither can nor should expect to resume; as a result, demand is going to be lower even once the crisis fades.” Paul Krugman, “Bubbles, Regulation, and Secular Stagnation,” *The New York Times*, September 25, 2013, at <http://krugman.blogs.nytimes.com/2013/09/25/bubbles-regulation-and-secular-stagnation>.

32. David Landes, Joel Mokyr, and William J. Baumol, *The Invention of Enterprise: Entrepreneurship from Ancient Mesopotamia to Modern Times* (Princeton, 2012).

33. Teresa Fort, et al., “How Firms Respond to Business Cycles: The Role of the Firm Age and Firm Size,” National Bureau of Economic Research Working Paper, No. 19134, June 2013.



Figure 3  
Startups: Volume and Per Capita



Source: US Census Bureau, Business Dynamics Statistics

New and young growing companies add *net* new jobs to the economy in a number of ways. They create jobs for new labor market entrants (especially young workers), they absorb workers from shrinking or disappearing companies, and they create jobs over and above the employment contraction resulting from those companies.<sup>34</sup> It is important to note that this is not necessarily driven by the hiring of individuals who would otherwise be unemployed. New and young companies create jobs, and are essential to economic dynamism, the continuous reallocation of people and resources to productive uses.<sup>35</sup>

What is the state of American entrepreneurship and what is its relationship to the aforementioned trends? Not surprisingly, the state of entrepreneurship, like the overall economy, is mixed, with positive and negative trends

coexisting. In this section, we discuss some recent data on entrepreneurship, as well as its relationship to some of the trends mentioned above.

**Decreasing business creation rate and dynamism.** While the volume of new business creation had been more or less steady for two decades—peaking in 2006—the rate has been flat or falling since the late 1980s. The per-capita entrepreneurship rate has been steadily declining, meaning that even as the population expanded and the overall number of new businesses formed each year held steady or grew, the pace slowed, failing to keep up with population growth.<sup>36</sup> Figure 3 illustrates the steep fall in the pace of new business creation during the Great Recession and afterward. As of 2011 (the latest year for which data are available), it had yet to fully recover.

34. John Haltiwanger, “Job Creation and Firm Dynamics,” *Innovation Policy and the Economy*, Volume 12, (National Bureau of Economic Research, 2012); Paige Ouimet and Rebecca Zarutskie, “Who Works for Startups? The Relation Between Firm Age, Employee Age, and Growth,” Finance and Economics Discussion Series, Divisions of Research and Statistics and Monetary Affairs, Federal Reserve Board, 2013, at <http://www.federalreserve.gov/pubs/feds/2013/201375/201375pap.pdf>. This also is over and above any negative employment shock at existing businesses that results from the entry and growth of new companies.

35. The research literature demonstrating the relationship between entrepreneurship and economic growth is vast. For recent discussions, see in particular John Haltiwanger, “Job Creation and Firm Dynamics,” *Innovation Policy and the Economy*, Volume 12, (National Bureau of Economic Research, 2012); Chad Syverson, “What Determines Productivity?” *Journal of Economic Literature*, June 2011; William J. Baumol, *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism* (Princeton, 2004).

36. When we scale the startup rate to working age population (eighteen to sixty-four) and “prime age” population (twenty-five to fifty-four), the trends are the same, and even slightly worse.

The lack of Census data for 2012 and 2013 obscures a full understanding of the current state of entrepreneurship and evidence of the ongoing difficulty in obtaining timely and high-quality data for researching entrepreneurship. We expect, given the macro conditions, a moderate increase in these rates since 2011.

Our forecast is supported by the development of concentrated areas of high levels of entrepreneurial activity in specific geographic areas over the last few years, including New York City, Seattle, Cambridge, Mass., Atlanta, and the “Silicon Prairie,” in addition to the continued dynamism of Silicon Valley.<sup>37</sup> Part of this may be associated with the rapid increase in and continued proliferation of entrepreneurship accelerators across the country.<sup>38</sup> These programs, in stark contrast to traditional incubators, seek to “accelerate” startups through a combination of hands-on mentoring and network connections. New entrepreneurship education and training programs also may prove effective in fostering new businesses in geographical areas not known for entrepreneurial activity. These include ITEN in St. Louis, Pipeline in the Midwest, and LaunchPad in Florida and Ohio. Impressively, both the accelerators and these education programs have flourished during an anemic economic recovery.<sup>39</sup>

Some indication of the impact of all this activity might be found in data sources that indicate an uptick in entrepreneurial activity during the recession.<sup>40</sup> Due to differences in how entrepreneurship is defined, we cannot

tell whether that rising activity represents the formation of companies with employees or, for example, inflows into self-employment.<sup>41</sup>

In addition to the decline we have seen in the rate of new business creation and the number of young firms overall, we have seen a parallel drop in dynamism in the high-technology sectors of the economy—those from which many high-growth companies emerge and which have been among the most dynamic sectors for job creation and innovation. Recent research confirms that the high-tech sector “is becoming less dynamic and entrepreneurial,” and points to the negative implications of this finding for the economy overall, “since these young firms are even more dynamic than their non-high-tech counterparts.”<sup>42</sup>

The declining rate of new business creation and consequent fall in the number of young firms contributed disproportionately to the overall drop in employment growth from 2006 to 2009, as well as sluggish job creation (especially since 2000), the changing structure of employment, and a “secular decline in business dynamism.”<sup>43</sup> Companies younger than ten years old accounted for 37 percent of the overall decline in net job growth during that period, while only accounting for 22 percent of employment.<sup>44</sup> In addition, there has been a narrowing of the employment growth rate distribution—fewer new jobs are coming from high-growth firms (and fewer job losses are coming from fast-shrinking companies).<sup>45</sup> As high-growth firms historically have been

37. See, e.g., Michael Mandel, “Building a Digital City: The Growth and Impact of New York City’s Tech/Information Sector,” prepared for Bloomberg Technology Summit, September 2013, at <http://www.mikebloomberg.com/files/BuildingaDigitalCity.pdf>; Alexis C. Madrigal, “What We Learned Driving 2,000 Miles Through the South’s Start-Up Landscape,” *The Atlantic*, November 1, 2011, at <http://www.theatlantic.com/technology/archive/2011/11/what-we-learned-driving-2-000-miles-through-the-souths-start-up-landscape/247671/>.

38. The trend, however, may have peaked. Mark Lennon, “The Startup Accelerator Trend is Finally Slowing Down,” *TechCrunch*, November 19, 2013, at <http://techcrunch.com/2013/11/19/the-startup-accelerator-trend-is-finally-slowing-down/>. See also Tim Devaney and Tom Stein, “6 Trends Startups Must Cope with in 2013—from Paul Kedrosky,” *ReadWrite*, December 26, 2012, at <http://readwrite.com/2012/12/26/6-trends-startups-must-cope-with-in-2013-from-paul-kedrosky#awesm=otweocxHSP5fx0>.

39. For a hopeful perspective on the proliferation of such programs, see Paul Kedrosky, “Getting the Bug: Is (Growth) Entrepreneurship Contagious?” Kauffman Foundation, October 2013, at [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2013/10/isentrepreneurshipcontagious.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2013/10/isentrepreneurshipcontagious.pdf).

40. Robert W. Fairlie, *The Kauffman Index of Entrepreneurial Activity*, Kauffman Foundation, 2013, at <http://www.kauffman.org/what-we-do/research/kauffman-index-of-entrepreneurial-activity>.

41. See Robert W. Fairlie, “Entrepreneurship, Economic Conditions, and the Great Recession,” *Journal of Economics and Management Strategy*, 2013. Working paper versions here: [http://econpapers.repec.org/paper/cesceswps/\\_5f4140.htm](http://econpapers.repec.org/paper/cesceswps/_5f4140.htm).

42. Ian Hathaway, Javier Miranda, and John Haltiwanger, “Declining Business Dynamism in the U.S. High-Technology Sector,” Kauffman Foundation, February 2014.

43. Ryan Decker, et al., “The Secular Decline in Business Dynamism in the U.S.,” *Journal of Economic Perspectives* (forthcoming, 2014).

44. Teresa Fort, et al., “How Firms Respond to Business Cycles: The Role of the Firm Age and Firm Size,” National Bureau of Economic Research Working Paper, No. 19134, June 2013.

45. Henry R. Hyatt and James R. Spletzer, “The Recent Decline in Employment Dynamics,” Center for Economic Studies, U.S. Census Bureau, March 2013.

essential to job creation and innovation, these statistics are cause for concern.

Falling business creation also has contributed, in part, to a decline in employment dynamism, meaning “the rate at which workers and businesses exchange jobs.”<sup>46</sup> Decreases in various measures of employment dynamics have been occurring since before 2000.<sup>47</sup> Since business and job turnover typically is associated with improved productivity and wage growth, perhaps it is not surprising that falling labor market dynamism coincided with stagnant income growth and slowing productivity over this period.<sup>48</sup>

Trends in entrepreneurship also may be related to these changes in the American employment structure. As noted earlier, most job growth over that period was in non-tradable sectors, particularly health care, retail, construction, and accommodation and food service. Not coincidentally, these same sectors of the economy had large increases in business creation, despite an overall falling rate. In the 2000s, for example, the largest number of young firms, the most job creation from young firms, and the largest number of high-growth firms could be found in construction, accommodation and food service, health care, retail, administrative and support services, and professional, scientific, and technical services.<sup>49</sup>

One way to look at this, then, is to pinpoint the shifting nature of new business creation as the culprit in both falling overall job creation and falling productivity. The non-tradable sectors have low or declining value-added per person compared to tradable sectors. As non-tradables now account for a larger share of the economy, their low value-added drags down economic performance and helps explain slowing productivity and stagnant wage growth. If most

new job creation in the two decades preceding the Great Recession were in non-tradable sectors, and if those same sectors had large numbers of new and young companies, then it is reasonable to conclude that new business creation has helped drive down productivity and value-added output for the economy. The collapse in net job creation beginning in 2008, driven by the fall in new business creation, also is consistent with this evidence.

The effects of this decrease in entrepreneurship have fallen especially hard on young workers, who have higher rates of job-to-job mobility. Newer businesses, often found in the restaurant and retail sectors, are more likely than older companies to employ young workers, often offering them entry-level jobs. As such, these businesses contribute to young workers’ wages through job churning and by paying them a premium relative to older firms.<sup>50</sup> The slow decline in business creation and accompanying fall in employment dynamics thus may have meant depressed wages for young workers and fewer opportunities for their upward mobility, contributing to lower lifetime earnings.

Looking ahead, then, it’s not as simple as saying: the United States needs more business creation. New businesses create jobs, but the character of those jobs—and the rate at which firm and job churn occurs—matters for productivity, wages, and economic growth.

**Job creation and the housing bubble.** It is not surprising that a recession precipitated by the burst of a housing bubble had a substantial effect on business creation. Economists have established that the health of the housing market is intimately related to the level of business creation in the economy. Research indicates that young firms display high sensitivity to house prices; it is estimated

46. Henry R. Hyatt and James R. Spletzer, “The Recent Decline in Employment Dynamics,” Center for Economic Studies, U.S. Census Bureau, March 2013. Other factors include population aging, rising educational attainment, and globalization.

47. This includes job hires, job separations, job creation, job destruction, and job-to-job flows. Henry R. Hyatt and James R. Spletzer, “The Recent Decline in Employment Dynamics,” Center for Economic Studies, U.S. Census Bureau, March 2013.

48. It is also possible, of course, that a decline in employment dynamics reflects a more efficient labor market, with improved employer-employee matching. The available evidence and its relationship to productivity and wage growth, however, suggest this is not the case.

49. Source: Special Tabulation, Business Dynamics Statistics, U.S. Census Bureau. While Professional, Scientific, and Technical Services (PSTS) does include many high-end subsectors like R&D firms and engineering services, it also includes mid-range categories like lawyers and accountants and, most of all, “employment services,” which principally means temporary employment firms. See also Erik Hurst and Benjamin Pugsley, “What Do Small Businesses Do?” *Brookings Papers on Economic Activity*, Fall 2011, at [http://www.brookings.edu/~media/Projects/BPEA/Fall%202011/2011b\\_bpea\\_hurst.PDF](http://www.brookings.edu/~media/Projects/BPEA/Fall%202011/2011b_bpea_hurst.PDF).

50. Paige Ouimet and Rebecca Zarutskie, “Who Works for Startups? The Relation Between Firm Age, Employee Age, and Growth,” Finance and Economics Discussion Series, Divisions of Research and Statistics and Monetary Affairs, Federal Reserve Board, 2013, at <http://www.federalreserve.gov/pubs/feds/2013/201375/201375pap.pdf>. John Haltiwanger, et al., “Job Creation, Worker Churning, and Wages at Young Businesses,” Business Dynamics Statistics briefing, Kauffman Foundation, November 2012, at [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2012/11/bds\\_report\\_7.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2012/11/bds_report_7.pdf).

that 42 percent of the decline in the relative performance of young firms (in terms of job creation) during the Great Recession was associated with the decline in house prices.<sup>51</sup>

Census data offer more evidence of this relationship, revealing that the increase in the volume of new businesses from the turn of the century to 2006 likely was driven by housing. Many of the new businesses created during this time were in the construction sector. In fact, from 1998 to 2006, the construction sector experienced large increases in business creation and employment, accounting for fully one-quarter of the economy's overall increase in firms over that period.<sup>52</sup> By 2007, construction had more young firms (five years old and younger) than any other economic sector. Furthermore, between 2000 and 2005, states at the epicenter of the housing bubble had among the highest shares of employment in young firms.<sup>53</sup> When the bubble burst, overall new business creation fell so substantially in part because it had been concentrated in the very sector that collapsed.<sup>54</sup>

There also is a more subtle mechanism through which the housing market is tied to entrepreneurship. First, new home construction brings consumer demand for other new products and services, such as home furnishings and renovation contractors. Second, home equity was a major source of credit for financing new businesses prior to 2007. The decimation of housing wealth not only meant less demand for new construction and new products for the home, but also it foreclosed an important financing avenue for new firms of all kinds.

Furthermore, the financial effects of the housing bust were felt most profoundly by the age group responsible for the greatest share of business creation. The median net worth of households headed by individuals younger than age forty-

four was ravaged by the Great Recession: relative to their counterparts in 1984 and older households today, younger households are poorer. In particular, home equity has fallen as a share of household wealth for younger households.<sup>55</sup> Since the "peak age" for starting a new business is the thirties and forties, a decline in the major source of entrepreneurial financing for the age group most responsible for entrepreneurship may suppress business creation further.

This close relationship between the housing market and business creation rates sheds new light on Figure 3. The falling business creation rate noted above is even more troubling when we consider that the business creation rate was, overall, in decline even when the housing market was strongest. The business creation rate was at a high of 224 new companies per 100,000 people in 1987. It had fallen to 188 per 100,000 in 2006, when the housing market was at its peak, and then it plummeted. The rate of business creation at the top of the housing bubble, then, was 16 percent lower than the overall peak in the late 1980s, and lower than in the 1990s. Take away the housing market frisson of the 2000s, and concern about long-term entrepreneurship rates gets sharper.

To be sure, the recent increases and positive projections for housing prices are a reason for some optimism. In October 2013, the S&P/Case-Shiller House Price Indices notched their largest year-over-year gains since 2006,<sup>56</sup> and reports indicate that residential construction is due for a major boom over the next decade, partly catching up and partly demographics. Continued improvement in the housing market should, as a matter of volume, raise the level of business creation over the next few years, and more demand for residential construction will provide opportunities for many small contractors to start new businesses.

51. John Haltiwanger, *et al.*, "Job Creation, Worker Churning, and Wages at Young Businesses," Business Dynamics Statistics briefing, Kauffman Foundation, November 2012, at [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2012/11/bds\\_report\\_7.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2012/11/bds_report_7.pdf).

52. U.S. Census Bureau, Statistics of U.S. Business, at <http://www.census.gov/econ/sub/>. Dane Stangler, "Entrepreneurship, Firm Growth, and Job Creation," Kauffman Foundation, forthcoming.

53. John Haltiwanger, *et al.*, "Entrepreneurship Across States," Business Dynamics Statistics briefing, Kauffman Foundation, February 2009.

54. We see a similar distribution looking at high-growth companies. On the *Inc.* magazine list of the fastest-growing private companies in 2007 (reflecting growth from 2003 to 2006), Construction had the largest concentration, with 11 percent of companies on the list. By 2013, Construction's share had fallen to 4 percent.

55. Paul Taylor, *et al.*, "The Rising Age Gap in Economic Well-being: The Old Prosper Relative to the Young," Pew Research Center on Social and Demographic Trends, November 2011.

56. Erin Carlyle, "U.S. October Home Prices Rise At Highest Rate Since Feb. 2006, S&P/Case-Shiller Says," *Forbes*, December 31, 2013, at <http://www.forbes.com/sites/erincarlyle/2013/12/31/u-s-october-home-prices-rise-at-highest-rate-since-feb-2006-spcase-shiller-says/>.

### Technological change and unemployment.

Technological advancement continues to move, by most accounts, at an astounding pace. Driverless cars continue to improve in performance, and are now legal to drive in three states. Sensor technology is improving exponentially, helping create an “industrial Internet” and “Internet of things” that are reshaping parts of the economy, as well as personal behavior. The power and reach of mobile phones and smartphones continue to expand relentlessly.<sup>57</sup> By many measures, then, we are living in a time of almost ridiculous abundance, with the future expected to bring even more.<sup>58</sup> These technological developments are also fertile grounds for entrepreneurship.<sup>59</sup>

Such technological progress, however, raises concerns regarding employment and educational preparation. The notion of “technological unemployment” is discussed by economists and others as a very real (and ongoing) phenomenon.<sup>60</sup> One estimate suggests that 47 percent of total U.S. employment is at high risk for computerization and, thus, replacement.<sup>61</sup> Job polarization is only partially about educational attainment—it is also a story of changing occupational skill demands, and the availability (or not) of people prepared to meet those demands. In the “race between education and technology,” the latter has been winning for three decades because of slowing educational attainment.<sup>62</sup> High-skill and high-wage occupations seem to be the least susceptible to computerization and automation.<sup>63</sup>

Concerns about “technological unemployment” in the face of technological change are by no means new. This apprehension was, in fact, especially acute a century ago when the Second Industrial Revolution moved the United States away from an agrarian economy and launched it into an industrial one. Skills and occupations that once were

valued became less appreciated or even obsolete. New industries, including new kinds of steel production, chemical manufacturing, and electrification, demanded new skills, but the education system was almost entirely inadequate to meet this need.

New types of blue-collar work required new and more advanced skills. An entire category of work that hadn’t truly existed before—white-collar clerks and managers—also needed workers with new skills. In response, across the country, the “high school movement” took root, establishing a new type of generalist education and ensuring the industrialization of America and, with it, rising living standards.<sup>64</sup>

This transition from an agricultural economy to an industrial one occurred without massive unemployment, and economists often cite it as an example of economic forces’ reallocation of resources to more productive uses. The reallocation, however, does not occur automatically. In the transition 100 years ago, new businesses created new industries and new jobs around new technologies. Institutions like the high school helped mediate the transition, and American higher education also underwent a far-reaching transformation. The modern research university did not exist until the late nineteenth century, when a cadre of successful entrepreneurs either created new universities or overhauled existing ones. The purpose was, again, to endow Americans with a new set of skills to be economically successful.

What will be today’s equivalent of the high school movement and transformation of higher education? Capital-labor substitution is nothing new, and is an essential element of a healthy economy, but improving the stock of human capital in the United States is necessary not only to

57. Mary Meeker and Liang Wu, “Internet Trends,” D11 Conference, May 29, 2013.

58. Peter Diamandis, *Abundance: The Future is Better than You Think* (Free Press, 2012).

59. Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies* (Norton, 2014).

60. Erik Brynjolfsson and Andrew McAfee, *Race Against the Machine: How the Digital Revolution is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy* (Digital Frontier, 2012).

61. Carl Benedikt Frey and Michael A. Osborne, “The Future of Employment: How Susceptible Are Jobs to Computerisation?” Working Paper, University of Oxford, September 2013.

62. Lawrence F. Katz and Claudia Goldin; Anthony P. Carnevale and Stephen J. Rose, “The Undereducated American,” Georgetown Center on Education and the Workforce, 2011.

63. Carl Benedikt Frey and Michael A. Osborne, “The Future of Employment: How Susceptible Are Jobs to Computerisation?” Working Paper, University of Oxford, September 2013; Frank Levy and Richard J. Murnane, “Dancing with Robots: Human Skills for Computerized Work,” *Third Way*, 2013.

64. Claudia Goldin and Lawrence F. Katz, *The Race Between Education and Technology* (Belknap, 2010).

meet existing occupational demands but also to create new occupations.<sup>65</sup>

**Reasons for optimism.** There also is evidence that entrepreneurial activity in certain sectors was strong in 2013, prompting optimism about entrepreneurship generally and a simultaneous debate about the possibility of a bubble in tech startups. According to CB Insights, 2013 was a “banner year” for seed financing in the tech sector, a mark of a healthy financing environment, and venture-backed initial public offerings rebounded in 2013.<sup>66</sup> Furthermore, heading into 2014, there were nearly 600 investor-backed tech companies with valuations greater than \$100 million.<sup>67</sup> Many of these companies capitalize on micro-entrepreneurship, providing platforms for individuals to monetize things like extra rooms, craft hobbies, and cars. While the individual companies may not all endure, there is little reason to expect the boom in micro-entrepreneurship to reverse, and this could provide a boost (if properly measured) to overall business creation.

Sectors that typically have been less than welcoming to entrepreneurship, such as finance and health, are experiencing strong levels of startup activity.<sup>68</sup> And, even during the lean years, the U.S. economy has continued to produce high-growth firms across a variety of areas. In 2013, the top sectors for Inc. 5000 firms were IT Services, Business Products and Services, Advertising and Marketing, Health, Software, Financial Services, and Manufacturing.<sup>69</sup>

In fact, it appears as if the United States produces a rather steady rate of fast-growing, scale companies.<sup>70</sup>

More broadly, while traditional bank lending to small businesses (an imperfect proxy for young firms) still has not recovered to pre-recession levels, there has been a rising supply of alternative and short-term credit to meet the demand from small and young businesses.<sup>71</sup> Furthermore, the Jumpstart Our Business Startups Act (JOBS) was passed by Congress and signed by President Obama in the spring of 2011. The regulatory reforms in this legislation were intended to raise the number of initial public offerings (IPOs) and allow for equity crowdfunding as a source of seed capital for entrepreneurs. While the equity crowdfunding regulations have yet to be finalized and there are voices expressing doubt about the effectiveness of the legislation, it could lead to long-term improvements in entrepreneurship rates.<sup>72</sup>

Similarly, the Affordable Care Act (“Obamacare”) could prove a shot in the arm to American entrepreneurship in two ways.<sup>73</sup> First, it could open up a number of entrepreneurial opportunities within health care itself. Whether or not these opportunities are taken and whether they help lower costs and boost productivity remains to be seen. Second, and more importantly, by providing a new baseline of health insurance apart from employment, the ACA may help break the “entrepreneurship lock” that has kept many people from leaving their jobs to start

65. Brink Lindsey, *Human Capitalism: How Economic Growth Has Made Us Smarter—and More Unequal* (Princeton, 2012). Recent efforts to measure the “worth” of a college degree on the basis of earnings one year after graduation are important as attempts to make certain graduates are well prepared, but they appear to go in a direction that is the opposite of what is needed.

66. CB Insights, “2013 Seed Investing Snapshot,” January 2014, at <http://www.cbinsights.com/blog/trends/2013-seed-venture-capital>.

67. CB Insights, “2014 Tech IPO Pipeline Report,” January 2014, at <http://www.cbinsights.com/tech-ipo-pipeline>.

68. “Revenge of the Nerds,” *The Economist*, August 3, 2013, p. 59.

69. “The 2013 Inc. 5000 List,” *Inc.*, at <http://www.inc.com/inc5000/list/2013> [author’s aggregation and tabulation]. Appearance on the 2013 list recognizes growth over the 2009–12 period. These seven sectors accounted for 58 percent of Inc. companies in 2013.

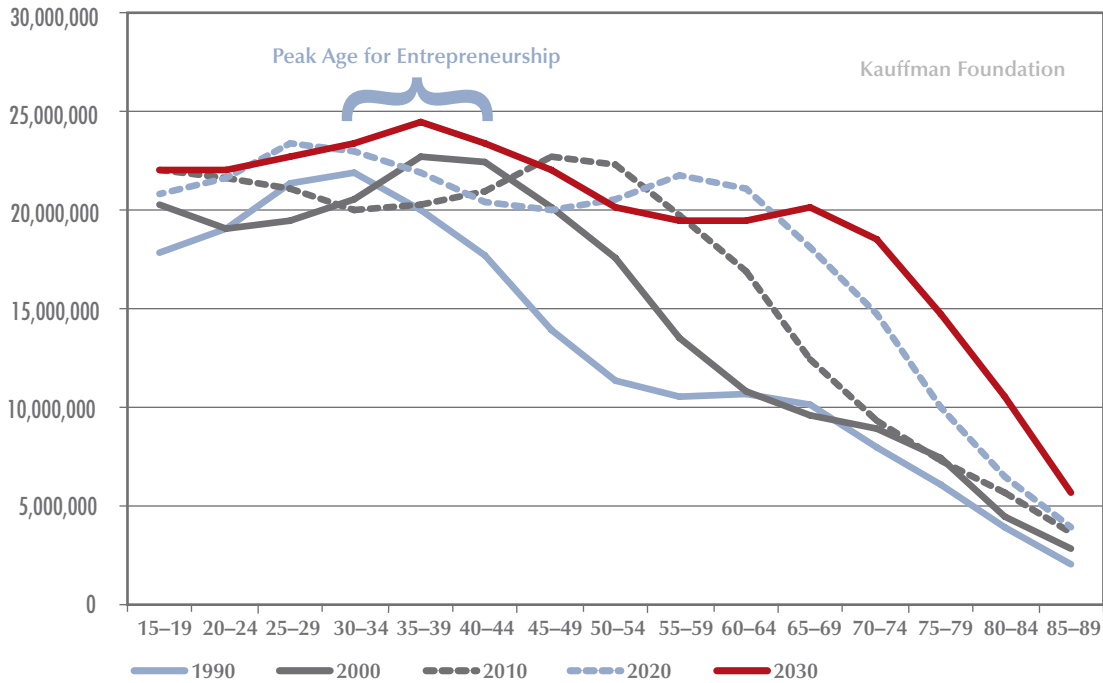
70. Paul Kedrosky, “The Constant: Companies that Matter,” May 2013, at [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2013/05/companiesthatmatter.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2013/05/companiesthatmatter.pdf).

71. Lanthe Jeanne Dugan and Ruth Simon, “Alternative Lenders Peddle Pricey Commercial Loans,” *The Wall Street Journal*, January 8, 2014, p. A1.

72. See, e.g., Jay R. Ritter, “Reenergizing the IPO Market,” in Martin Neil Baily, et al. (eds.), *Financial Restructuring to Sustain Recovery* (Brookings, 2014); Stuart R. Cohn, “The New Crowdfunding Registration Exemption: Good Idea, Bad Execution,” *Florida Law Review*, 2012, at <http://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1032&context=flr>.

73. Worries that the ACA may suppress firm growth—because of the now-delayed employer mandate applying to companies with more than fifty employees—are likely overstated. Ninety-five percent of American firms have fewer than fifty employees; only a fraction falls into the high-growth category. Even among cohorts like the Inc. 5000 fast-growing companies, the median employment size, after a period of growth, is around thirty. The benefits outlined here that the ACA may provide to entrepreneurs seem likely to outweigh any costs associated with restricting firm growth. See, e.g., Carter C. Price and Evan Saltzman, “Delaying the Employer Mandate,” RAND, 2013, at [http://www.rand.org/content/dam/rand/pubs/research\\_reports/RR400/RR411/RAND\\_RR411.pdf](http://www.rand.org/content/dam/rand/pubs/research_reports/RR400/RR411/RAND_RR411.pdf).

Figure 4  
U.S. Population Age Distribution, Absolute Number



Source: Dane Stangler and Dan Spulber, “The Age of the Entrepreneur: Demographics and Entrepreneurship,” i4j Summit, March 2013.

companies for fear of losing health insurance. This has been a real phenomenon in the United States and may be a contributory factor in falling rates of business creation.<sup>74</sup>

Demographic trends, too, offer some positive perspective on business creation. The U.S. population in the aggregate is, of course, aging—the median age will reach forty by 2020, the highest since 1960, and the old age dependency ratio will nearly double by 2030. The age distribution in the United States is “moving from a triangular shape (more younger people) to a rectangular shape (more even distribution across the ages).”<sup>75</sup> As shown in Figure 4, however, the absolute number of Americans between thirty

and forty years old, the “peak age” for business creation, will be bigger than ever before for the next fifteen years. While this group has been hit especially hard by the Great Recession, as discussed above, the absolute numbers suggest that we might expect a demographic-driven boom in entrepreneurship over the next decade and a half. The growing number of people in their twenties, also contributors to tech startups and other high-growth companies, may provide even more reason for entrepreneurial hope, especially since this generation has more entrepreneurial training than any previous generation.<sup>76</sup> Indeed, there are some early indications of a boom in extremely young

74. The ACA also may help reduce “job lock” that suppresses employee mobility in changing jobs. See Robert W. Fairlie, et al., “Is Employer-Based Health Insurance a Barrier to Entrepreneurship?” *Journal of Health Economics*, September 2010.

75. Dane Stangler and Daniel F. Spulber, “The Age of the Entrepreneur: Demographics and Entrepreneurship,” i4j Summit, March 2013.

76. Dane Stangler and Daniel F. Spulber, “The Age of the Entrepreneur: Demographics and Entrepreneurship,” i4j Summit, March 2013.

entrepreneurs, although, given some limitations in the data, we are cautious in our assessment.<sup>77</sup> (Our focus here is on absolute numbers: the flattening of the curves in the figure means that the total share of entrepreneurs in the thirty-to-forty age range will be shrinking even while they likely become the dominant group nominally.)

The older end of the spectrum also suggests the possibility of an entrepreneurial resurgence. Entrepreneurial activity has been rising among people in their fifties and sixties.<sup>78</sup> Immigration, too, offers hope of renewed entrepreneurial activity—if, that is, the United States remains open and welcoming to immigrants. Immigrants have a higher propensity to start businesses and have made significant entrepreneurial contributions in high-tech sectors.<sup>79</sup> Demographic change conceivably opens up entrepreneurial opportunities in specific sectors, including health, medicine, education, construction, finance, and transportation.

## IV. Toward a New Entrepreneurial Growth Agenda

In physics, dark energy and dark matter account for most of the universe's mass. The difficulty is that these cannot necessarily be captured or measured very well, so physicists and astronomers must reason by inference, indirect evidence, and even absence. Researchers and policymakers are in a similar situation when approaching entrepreneurship and the American economy. Entrepreneurship is not a macro-level activity, and cannot be captured adequately through aggregate statistics, anecdotes, or absence. It is the engine of the American economy, but that engine is sputtering, and figuring out the causes and what to do about it is very much an exercise in understanding the dark energy and dark matter of the economy.

The current “state” of entrepreneurship in the United States is uneven: across sectors, across geographies, and in economic effects. We certainly don't have all the answers for the challenges described in this report, but we have tried here to frame several economic trends and relate them to different aspects of entrepreneurship.

Addressing those challenges and unpacking what needs to be done will require a concerted effort by policymakers, researchers, and others, under the rubric of developing a New Entrepreneurial Growth Agenda. Most of this Agenda necessarily remains undefined, but there are short-term areas we believe need to be addressed and immediate actions that could be taken to start revving the entrepreneurial engine again. Beyond that, substantial questions remain that will be the focus over the next two years of work by the Kauffman Foundation and those organizations who join us in developing a New Entrepreneurial Growth Agenda.

### Short-Term Needs to Address

Two major pieces of legislation enacted within the past few years—the JOBS Act and ACA—will have large but not-yet-understood effects on entrepreneurship. As these policies are implemented, we would be neglectful not to focus on two immediate concerns directly related to entrepreneurship:

- The Securities and Exchange Commission (SEC) should avoid overly prescriptive equity crowdfunding regulations that would inhibit the market's ability to shape itself.
- At the time of writing, the SEC is finalizing the crowdfunding regulations in accordance with Title III of the JOBS Act. It is, of course, not clear if crowdfunding will lead to more, and more successful, entrepreneurs. But, in prioritizing entrepreneurial capital formation, the SEC must find the proper balance between minimizing fraud

77. E.J. Reedy, “Entrepreneurship and the Lifecycle,” Kauffman Foundation, forthcoming.

78. Robert W. Fairlie, *The Kauffman Index of Entrepreneurial Activity*, Kauffman Foundation, 2013, at <http://www.kauffman.org/what-we-do/research/kauffman-index-of-entrepreneurial-activity>.

79. Robert W. Fairlie, *The Kauffman Index of Entrepreneurial Activity*, Kauffman Foundation, 2013, at <http://www.kauffman.org/what-we-do/research/kauffman-index-of-entrepreneurial-activity>.



and mitigating the concern that the legislative structure is already too burdensome for equity crowdfunding.

- The Affordable Care Act has had anything but a smooth beginning, and we urge federal policymakers, state policymakers, and insurance companies not to lose sight of entrepreneurs amidst the rocky implementation.
  - In designing exchanges and new policies, policymakers and health insurance companies should make sure that entrepreneur-friendly policies are available: The ACA must be allowed to unlock “entrepreneurship lock,” the tendency for employer-secured health insurance to inhibit potential new business creation.
  - In health care itself, despite high levels of entrepreneurial activity, many entrepreneurs—especially in high-tech health care—run into barriers in the form of federal regulations or hospital purchasing rules. More attention needs to be paid to these barriers so that new and innovative companies are allowed to enter and compete.

### Immediate Actions to Take

Thanks to the work of several organizations, federal policymakers do have at hand good ideas that will help boost business creation and assist policymakers in helping entrepreneurs. Importantly, too, this is not exclusively a federal policy issue: State and local governments also must contribute to this effort. State licensing laws across a variety of sectors, for example, prevent entry and competition.<sup>80</sup>

In particular, three areas where immediate federal policy actions can be taken are immigration, data collection, and the focus of the Small Business Administration.

### Immigration

- Immigrant entrepreneurs are a gift to the United States, both economically and culturally. These individuals from all over the world come to the United States and build companies that, among other things, create jobs for Americans and bring innovation to our economy.<sup>81</sup> Demographic change and the more attractive economies of other countries mean that the United States needs as many immigrant entrepreneurs as we can attract. We don’t make it easy for them, however. At the time of writing, comprehensive immigration reform is stalled in Washington—current proposals include a provision to create a new Startup Visa, a dedicated means of entry for immigrant entrepreneurs. Policymakers should look for additional improvements focused on building America’s pool of immigrant talent:
  - Rather than incorporating a Startup Visa into immigration reform, Congress should consider separate action to create a new Startup Visa to attract immigrant entrepreneurs. This is an economic growth measure, not just an immigration idea. Short of that, however, if the Startup Visa continues to be part of a comprehensive bill, here are some proposed modifications:
    - Reconsider the financial requirements for Startup Visa eligibility. Immigrants in this country have a long history of substantial entrepreneurial impact because, in part, many arrive here with few assets, seeking the opportunity to start a company and build personal and community wealth.<sup>82</sup> Deep pools of investment backing are not necessarily essential for successful immigrant entrepreneurship, and current financial

80. See, e.g., Dane Stangler, “Occupational Licensing: How a New Guild Mentality Thwarts Innovation,” Progressive Policy Institute, March 2012, at [http://progressivepolicy.org/wp-content/uploads/2012/04/03.2012-Stangler\\_Occupational-Licensing\\_How-A-New-Guild-Mentality-Thwarts-Innovation1.pdf](http://progressivepolicy.org/wp-content/uploads/2012/04/03.2012-Stangler_Occupational-Licensing_How-A-New-Guild-Mentality-Thwarts-Innovation1.pdf).

81. See, e.g., Stuart Anderson, “H-1B Visas Essential to Attracting and Retaining Talent in America,” National Foundation for American Policy, May 2013, at <http://www.nfap.com/pdf/NFAP%20Policy%20Brief%20H-1B%20Visas%20May%202013.pdf>; Stuart Anderson, “The Contributions of Immigrants to Cancer Research in America,” National Foundation for American Policy, February 2013, at [http://www.nfap.com/pdf/NFAP\\_Policy\\_Brief.The%20Contributions%20of%20Immigrants%20to%20Cancer%20Research%20in%20America.March%2005%202013.pdf](http://www.nfap.com/pdf/NFAP_Policy_Brief.The%20Contributions%20of%20Immigrants%20to%20Cancer%20Research%20in%20America.March%2005%202013.pdf).

82. See, e.g., Jonathan Bowles and Tara Colton, “A World of Opportunity,” Center for an Urban Future, February 2007, at [http://nycfuture.org/images\\_pdfs/pdfs/IE-final.pdf](http://nycfuture.org/images_pdfs/pdfs/IE-final.pdf).

thresholds will keep many potentially high-impact entrepreneurs out.

- Clarify the rules about Curricular Practical Training (CPT) and Optional Practical Training (OPT) for immigrant students. At present, it is not entirely clear whether immigrant students can either start their own companies or join new companies under these programs.<sup>83</sup> Student entrepreneurship should be both allowed and encouraged.
- Increase the number of visas created by the Startup Visa provisions. More startup visas allow for a potentially greater impact on employment and wealth.<sup>84</sup> Countries around the world increasingly recognize that focusing on attracting immigrant entrepreneurs might be smart policy—the United States cannot assume that its historical advantage in attraction will hold without additional intentionality.

#### Data Provision

- Good policy decisions cannot be made on the basis of poor or nonexistent data. While there has been a tidal change in data available on entrepreneurship from national statistical agencies in the last decade, there remains room for improvement.<sup>85</sup> For example, the lack of hard data on firm financing over the last decade means that we have little ability to gauge the impact of the worst credit crunch in generations on the financing of small and young companies.
  - Fully fund and expand the Survey of Business Owners (SBO) conducted by the Census Bureau.

The SBO has been collected every five years by the Census Bureau and was nearly cancelled because of lack of funding in 2012. It is a critical vehicle for gaining insights into entrepreneurship and should be reimagined such that it becomes annualized and can be more effectively matched into administrative data to reduce reporting burden and such that the data might be more usable by local communities, industry associations, and other key constituencies. Estimates for full funding of the SBO run at about \$10 million over five years.<sup>86</sup>

- Highlight innovative practices in state- and local-level data provision, and seek ways to synchronize those. A recent report out of the Governor's Office of Colorado included some new and very informative maps of high-tech startups in Colorado over time.<sup>87</sup> Current disclosure rules in many states preclude this kind of basic mapping. In an era of rapidly expanding data collection and visualization capabilities, modernization is desperately needed.

#### Small Business Administration

- A change in the public policy environment for entrepreneurs must begin with a continued shift in the language used by policymakers away from small business and toward new, young, and growing businesses. While there have been proposals to eliminate or consolidate the Small Business Administration (SBA) into other federal agencies, the agency has made great strides in this direction.<sup>88</sup>
  - Provide the SBA with new responsibilities that bring entrepreneurship more fully under its

83. Anthony Luppino, John Norton, and Malika Simmons, "Reforming Immigration Law to Allow More Foreign Student Entrepreneurs to Launch Job-Creating Ventures in the United States," Kauffman Foundation, August 2012, at [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2012/08/kauffmanimmigrationreform.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2012/08/kauffmanimmigrationreform.pdf).

84. Dane Stangler and Jared Konczal, "Give Me Your Entrepreneurs, Your Innovators: Estimating the Employment Impact of a Startup Visa," Kauffman Foundation, February 2013, at [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2013/02/startup\\_visa\\_impact\\_final.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2013/02/startup_visa_impact_final.pdf).

85. Much of this change is chronicled on the Kauffman Blog—Datamaven—and through the Kauffman Data Symposiums.

86. Andrew Reamer, "Improving Federal Statistics for Industry Studies," paper presented at the Industry Studies Association Annual Conference, May 29, 2013. Full disclosure: Reamer is a Kauffman Foundation grant recipient.

87. John W. Hickenlooper, Henry Sobanet, Jason Schrock, Spencer Imel, and Laura Blomquist, "The Colorado Economic Outlook: Economic and Fiscal Review," State of Colorado Governor's Office of State Planning and Budgeting, December 2013.

88. Jeremy Quittner, "Senators to Small Business: Get Lost," Inc.com, January 10, 2014, at <http://www.inc.com/jeremy-quittner/bill-to-eliminate-sba.html>. By the current federal definition of small business (a company with fewer than 500 employees), 99 percent of firms in the United States are included, and most of them have fewer than twenty employees. These businesses, however, only account for about 50 percent of employment because of their small size.

purview. Recent research has pointed to the potentially beneficial impact of SBA loans, but a broader reconsideration of the SBA mission and scope should be undertaken with a focus on disaggregating program goals and moving toward better industrial- and entrepreneurship-focused support programs.<sup>89</sup>

- In keeping with a greater focus on new and young businesses, for example, the SBA should try to ensure that its loan assistance and guarantee programs are directed toward and widely available to entrepreneurial companies.

## Where Further Work Must be Done to Develop a New Entrepreneurial Growth Agenda

The New Entrepreneurial Growth Initiative is a multi-year effort by the Kauffman Foundation to catalyze entrepreneurship research and policy at the local, state, and national levels. It will include conferences, seminars, and commissioned research, in concert with different partners. All of these activities will be geared toward identifying ways the United States can attain a new, faster-growing, and more broad-based entrepreneurial economy with the goal of producing a New Entrepreneurial Growth Agenda by early 2016. While we are early in our exploration of potential areas of focus, several key questions have emerged and are likely to drive much of our work.<sup>90</sup>

### 1. What is driving the great slowdown in entrepreneurship and dynamism in the United States?

As discussed extensively in this piece, the slowdown in entrepreneurship and overall U.S. dynamism (and the apparent shrinking of the class of high-growth firms) has become widely established. Much less understood at this point are the factors driving these changes and the consequences for labor markets. Additional regional analyses of these dynamics is necessary.

### 2. What are the long-term implications of a slowdown in entrepreneurship on unemployment and broader job market dynamics?

With young companies acting like the great American shock absorber, allowing for labor market entry of more marginalized segments of the labor force, we have little idea of the cascading effects that slowing entrepreneurship and decreased dynamism will have on workers. The consequences of lower job contributions from startups may become a structural problem for the American economy.<sup>91</sup>

### 3. With entrepreneurs seeking new and alternative routes toward financing, how can regulations protect and enable those?

In the wake of a financial crisis, financial innovation is an understandably distasteful notion. But, the slow recovery of bank lending and decimation of housing wealth mean that financial innovation is more essential today than ever. The challenge for regulators is not to police new financial innovations, but to help ensure their use is productive, not destructive.

### 4. With growing opportunities in other parts of the world, how can America keep its entrepreneurial appeal among potential immigrants and hold onto highly educated individuals already here?

A casualty of the immigration debate in Washington has been a meaningful understanding of the nuances of immigration dynamics. Instead, immigrants have been slotted into “good” or “bad” camps, irrespective of other details. Regardless of the fate of comprehensive immigration reform on Capitol Hill, further work is needed to understand migration patterns into (and out of) the United States, and within the country once immigrants have arrived.

Competition for global talent of all kinds (not just highly educated individuals) is not going to diminish

89. J. David Brown and John S. Earle, “Do SBA Loans Create Jobs?,” unpublished working paper.

90. We are, of course, open to additional questions and ideas supportive of the goals of the initiative.

91. See, e.g., E.J. Reedy and Robert E. Litan, “Starting Smaller; Staying Smaller: America’s Slow Leak in Job Creation,” Kauffman Foundation Research Series on Firm Formation and Economic Growth, July 2011, at [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2011/07/job\\_leaks\\_starting\\_smaller\\_study.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2011/07/job_leaks_starting_smaller_study.pdf).

anytime soon, and additional research and policy analysis will enable the United States to retain its ability to attract immigrants.

5. Will today's youth be able to achieve their entrepreneurial potential?

As the most highly educated (traditionally and entrepreneurially) cohort yet, Americans in their twenties and thirties bring a wave of potential but are saddled with escalating college costs, employers looking more for contractors than employees, and diminished hope of achieving traditional milestones of independence in short order.<sup>92</sup>

Further research is needed to unpack the complex effects on career dynamics that likely are present here. Additionally, policies need to be developed that specifically try to address some of the downside effects on efficient labor force choice, such that those people wanting to become entrepreneurs have access to the financial capital and other options necessary in order to make that choice.

6. How can our educational institutions continue to adapt to changing talent and skill demands?

More work on fostering a pool of human capital for an entrepreneurial economy also is essential. Many of the cautionary predictions about the computerization of employment and continued labor market polarization emphasize the importance of entrepreneurial skills for the jobs of the future: persuasion, negotiation, social intelligence, creativity in developing ideas, and unstructured problem solving. Education reform is certainly not an area lacking in attention or ideas, and it remains unclear how the foregoing skills can be taught.

Student debt is a potential barrier to entrepreneurship, healthy labor market dynamics, and human capital formation. Additional research and policy ideas are

needed on how to circumvent this, and on how to build on or modify existing government programs that help relieve student debt burdens. Additionally, while the education technology sector has attracted growing amounts of investment capital, persistent barriers remain to entrepreneurs in the education sector. School districts, teachers, policymakers, foundations, and others must work together to further open the education sector to entrepreneurship.<sup>93</sup>

7. What insights can be unlocked through better integration of research linking longitudinal education statistics and workforce outcomes?

There is enormous potential to increase the rigor and analysis behind public policy by creating institutions to track human capital investments, which typically are measured at the state level, and workforce outcomes, which are best measured at the national level. Without changing the institutions we use in research and rely on for policy to better reflect the realities of a twenty-first-century economy, we cannot expect to truly enter a new era of entrepreneurial growth.

8. Where do we continue to find barriers in the regulatory structure to entrepreneurial entry and growth?<sup>94</sup>

The recent high-profile struggles between young companies like Uber and Airbnb and regulators and existing companies illustrate the high barriers to entry that exist in many parts of the economy. This is another way to consider the dark energy and dark matter analogy.

Entrepreneurs don't necessarily "discover" opportunities like gold miners or paleontologists discover their objectives. Instead, they identify problems and search for ways to solve them. In many cases, the "problem" isn't initially apparent to most people, which means entrepreneurs will run into obstacles. Those obstacles often are invisible and not evident until an entrepreneur starts pushing against

92. See, e.g., Anthony P. Carnevale, et al., "Failure to Launch: Structural Shift and the New Lost Generation," Center on Education and the Workforce, Georgetown University, September 2013, at <http://cew.georgetown.edu/failuretolaunch/>.

93. "2013 Seed Investing Snapshot: Seed Venture Capital Financing Hits Four-Year High," CB Insights Blog, January 3, 2014, at <http://www.cbinsights.com/blog/trends/2013-seed-venture-capital>.

94. See, e.g., F.H. Buckley, *The American Illness: Essays on the Rule of Law* (Yale, 2013).

them. Regulators across an array of sectors must balance the two halves of creative destruction.

9. How can national, state, and regional leaders receive more localized, relevant statistics that provide timely reporting of key entrepreneurial indicators?

With increased emphasis within the local economic development community on entrepreneurship, we must seek data solutions that are directionally accurate but also more timely and disaggregated geographically than currently available. Beyond just measurement about entrepreneurs and the companies they start, we will explore additional metric possibilities related to procedures, local funds provision, and a variety of alternative means of elevating the debate.

10. How can entrepreneurship support organizations better benchmark and identify programs that lead to success?

Building on the last point, but with a more explicit focus on actual support organizations, we believe that most entrepreneurial support organizations lack tools and procedures necessary to sufficiently track the results of their assistance. As a part of the New Entrepreneurial Growth Initiative, we hope to come to some consensus on critical tracking requirements as well as innovative means of creating benchmarks and collecting data through a common API or other tools.



Ewing Marion  
**KAUFFMAN**  
Foundation



Ewing Marion  
**KAUFFMAN**  
Foundation

4801 ROCKHILL ROAD  
KANSAS CITY, MISSOURI 64110  
816-932-1000  
[www.kauffman.org](http://www.kauffman.org)