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STARTUP
ACT **FOR THE** **STATES**

KAUFFMAN
The Foundation of Entrepreneurship



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Executive Summary

Research carried out or supported by the Ewing Marion Kauffman Foundation confirms that new and young firms generate a disproportionately large share of net job creation in the U.S. economy. However, even before the recession and since, the job-creating engine of startups (those less than five years old) has been slowing down.¹ This not only is unhelpful on the job front, but, because major technological advances are disproportionately commercialized by new firms, it portends slower growth in living standards in the future if startup trends are not reversed.

In July 2011, the Kauffman Foundation published the “Startup Act,” a menu of federal policy ideas aimed at promoting the formation and growth of new businesses in the United States. In addition to federal policy—which is preeminent on a number of issues—new businesses also navigate state-level laws and regulations. This document is designed to provide state policymakers with a similar menu of initiatives at the state level to reinforce any policies that promote entrepreneurial growth at the federal level. The fundamental premise behind these ideas, as well as this entire document, is that states and their citizens are better off encouraging the formation and growth of new companies, rather than pursuing the timeworn and cost-ineffective approach of competing for the headquarters and/or expansions of existing firms (sometimes referred to as “smokestack chasing”).

The menu provided in this essay is not offered as a “one-size-fits-all” prescription, but rather as simply a list of ideas from which state policymakers can choose and adapt to suit the needs of their particular states. Where possible and available, we note the empirical evidence relating to these proposals. But, for the most part, the proposals are new or sufficiently recent not to have a strong empirical base. They reflect, therefore, our collective judgment of what is most likely to work in terms of supporting new firm formation. States should thus adopt or adapt them in a spirit of experimentation, being ready, as entrepreneurs themselves would be, to refine them as they gain more experience, or even to jettison some ideas in favor of others. In the same vein, states and their citizens must become comfortable with the inherent messiness and turbulence of entrepreneurial growth: It is part of the process that

1. For this evidence on declining entrepreneurship, see E.J. Reedy and Robert Litan, “Starting Smaller; Staying Smaller: America’s Slow Leak in Job Creation,” Kauffman Foundation Research Series: Firm Formation and Economic Growth, July 2011, at http://www.kauffman.org/uploadedFiles/job_leaks_starting_smaller_study.pdf; Dane Stangler and Paul Kedrosky, “Exploring Firm Formation: Why is the Number of New Firms Constant?” Kauffman Foundation Research Series: Firm Formation and Economic Growth Number 2, January 2010, at http://www.kauffman.org/uploadedFiles/exploring_firm_formation_1-13-10.pdf.

some new firms will grow, while others will die or shrink. *On balance, however, the evidence is clear: Entrepreneurial growth is key to the growth of net new jobs and of major advances in living standards.*

We have organized the proposals by stage of the entrepreneurial process: encouraging and training entrepreneurs to take the often-audacious step of launching a business, measures to facilitate the actual launch of new ventures, and nurturing the growth of these new firms. As a guide to what follows, here, then, is a very brief summary of the policy suggestions fleshed out in greater detail in the body of the essay.

Enhancing the Supply of Entrepreneurs:

- Experiment with new methods for speeding up the commercialization of innovations developed by faculty at state universities
- Create new health insurance options for entrepreneurs
- Cut back on occupational licensing requirements (which inhibit the launch of new ventures), possibly moving to certification systems instead
- Expand entrepreneurial education at state universities and community colleges

Facilitating the Launch of New Ventures:

- Reduce the administrative burdens of starting and closing businesses
- Embrace digital firm formation
- Implement land-use reform at both state and local levels

- Allow and encourage disruptive business models in K–12 and higher education

Facilitating the Growth of New Ventures:

- Closely examine and, if necessary, change policy on non-compete enforcement
- Permit credit unions to make limited equity investments in new enterprises
- Simplify corporate taxes
- Encourage apprenticeship programs for young people in new companies

Fostering a Culture of Entrepreneurship:

- Welcome immigrants
- Foster networks of serial entrepreneurs and third-party investors
- Promote and celebrate successful entrepreneurs
- Measure entrepreneurial progress

I. INTRODUCTION

To be legally recognized and to conduct business, firms must comply with multiple requirements set by state and local governments. Businesses must file for incorporation with state government; they deal with matters of location and office space that are shaped by state law; and they seek to hire talented workers, a factor determined by state educational quality.² In this essay, we focus on how states can promote, directly or indirectly, new business creation and the inevitable “economic turbulence” that accompanies it.³ New firms enter the economy, challenging established companies; some shrink and some grow, some fail and

2. None of this is to deny the highly important local dimension of new firms. Notwithstanding the distinction between companies serving local or regional markets and those that garner more national attention, each type of new business confronts matters of law and policy that are determined at the county or municipal level. We will address city and regional policy in future Kauffman publications.

3. See Clair Brown, John Haltiwanger, and Julia Lane, *Economic Turbulence: Is a Volatile Economy Good for America?* p. 3 (Chicago, 2006). Such turbulence “is the entire process of economic change: worker reallocation as workers change jobs and job reallocation from firms contracting and shutting down, to firms expanding and starting up.”

some succeed. This is how economies at any level—national, state, or local—grow over time and generate rising standards of living for their citizens.

Several variables that shape entrepreneurial activity are outside government’s control—natural resource endowments, geographic amenities such as coastlines, weather, and so forth.⁴ A state may be able to alter the relative utility of these assets, but the effect will be limited. Other factors, well within a state’s sphere of policy influence, also determine the climate for entrepreneurship—this includes taxes, regulations, public goods, and additional quality of life indicators. This essay focuses on these policy measures, because they are levers that state officials can influence.

Even with budgets under enormous strain, state governments are in a unique position to shape the economic future of the country through their policy choices. At present, the United States is slowly recovering from the deepest recession since the Depression, suffering from a combination of weak demand for labor and moribund housing markets, but with employment vacancies that cannot be filled either because firms are unable to find talented employees or qualified workers are unable or unwilling to move to where the jobs exist. Many of the things that will help ease these frictions are within the purview of states. The ideas in this report are not intended to promote uniformity—each state differs and should continue to experiment with policies and programs tailored to its specific circumstances. States should remain

“laboratories of democracy.” But, we believe that a menu of generic policy ideas can be a source of broadly shared prosperity across state lines.

For purposes of clarity, we define “entrepreneurship” as firm formation and, while entrepreneurship is not the sole source of state economic growth, its importance for job creation and innovation merits special attention.⁵ While the relative impact of various public policies will differ among so-called “lifestyle” entrepreneurs, franchisees, and those aiming for growth and scale, there is enough overlap in their characteristics to suggest changes to state policy that will help.⁶ Most companies deal with hiring and firing and some form of real estate; all confront the process of incorporation and paying taxes and raising money to finance their businesses. We hope that some of the ideas presented here will increase entrepreneurship where it conceivably should be higher, while helping those entrepreneurs who begin with modest aims but soon realize their businesses have potential for growth and scale.⁷

II. WHAT STATES DO NOW TO ENCOURAGE ENTREPRENEURSHIP—AND WHAT DOESN’T WORK

We recognize that, in writing this essay, we are not entering uncharted waters—state-level efforts to promote and support entrepreneurship abound. According to one

4. See, e.g., W. Mark Crain, *Volatile States: Institutions, Policy, and the Performance of American State Economies* (Michigan, 2003).

5. See, e.g., Donald Bruce, et al., “Small Business and State Growth: An Econometric Investigation,” Small Business Administration, Office of Advocacy, February 2007. There is considerable leeway, of course, in how policymakers choose to define entrepreneurship and what types of new businesses they seek to promote. Peter Drucker provided what was probably the most straightforward distinction: “In the United States, for instance, the entrepreneur is often defined as one who starts *his own, new and small* business. ... But not every new small business is entrepreneurial or represents entrepreneurship. ... Admittedly, all new small businesses have many factors in common. But to be entrepreneurial, an enterprise has to have special characteristics over and above being new and small. Indeed, entrepreneurs are a minority among new businesses. They create something new, something different; they change or transmute values.” Peter Drucker, *Innovation and Entrepreneurship: Practice and Principles*, p. 21–22 (HarperBusiness, 1985).

6. Benjamin W. Pugsley and Erik G. Hurst, “What Do Small Businesses Do?” *Brookings Papers on Economic Activity* (Fall 2011).

7. In his study of *Inc.* 500 fast-growing companies, Amar Bhidé found that very few of them began with any ambition to grow, let alone rapidly. Amar Bhidé, *The Origin and Evolution of New Businesses* (2000).

count, two-thirds of the states have created funds for proof-of-concept and commercialization in bioscience alone. More than half maintain state-supported pre-seed funds, while 40 percent offer tax credits for angel investors as well as public money for various forms of “locally managed, later-stage venture capital.”⁸ State-supported incubators are another popular initiative, as are small business development centers (SBDCs), enterprise zones, and various entrepreneurship education programs at universities and community colleges.

Historically, these efforts have, to put it mildly, underperformed.⁹ This was well documented by economist Josh Lerner in his book, *Boulevard of Broken Dreams*, the title of which summarizes his main conclusion.¹⁰ It is easier, of course, to point to failed government efforts—we can count money spent, money wasted on boondoggles, and so on. It is harder to specifically quantify government interventions that enjoyed some success in encouraging entrepreneurship. These usually fall into the category that Lerner labels “setting the table” and unfold over many years, if not decades, with tangled lines of causation, multiple claims of credit, and uncertain lessons for others seeking to replicate the successful results. Discussing loan guarantee programs for small businesses, for example, which are popular across the country, Lerner’s diplomatic assessment is that they have a “mixed track record.” Success “hinges on a program’s ability to achieve a low default rate while providing loans to borrowers that would otherwise not have been funded.”¹¹ The natural tension between these outcomes is not hard to spot. Lerner further

observed that, because default rates often are higher than anticipated, “most guarantee schemes have not been sustainable without substantial subsidies.”¹² That is, public money supports questionable loans and is then on the hook when default occurs.

What one inevitably concludes from Lerner’s book and other studies is that government efforts to boost business creation by underwriting private capital frequently result in underperformance, wasted money, unanticipated outcomes, and economic distortions.

Another popular action states take is the establishment of science research parks, with the expectation that firms will relocate there, startups will spring up, and innovation will overflow into the surrounding area. Reality, unfortunately, is starker. In a review of two decades of science parks and federal funding under the Small Business Innovation Research program, Scott Wallsten found little effect:

The analyses suggest that neither SBIR funds nor research parks have significant impacts on regional technology indicators. Indeed, the results seem to suggest that SBIR funds seem to chase success, rather than vice versa, while research parks chase failure (regions experiencing reduced economic growth) and do not generally reverse it ... these results suggest that policymakers should think twice before implementing these activist policy measures.¹³

8. See Charles Ou, “State Programs to Promote the Growth of Innovative Firms in the United States—a Taxonomy,” in Giorgio Calcagnini and Ilario Favaretto (eds.), *The Economics of Small Businesses: An International Perspective*, p. 25, 46 (Springer, 2011).

9. See Alan Peters and Peter Fisher, “The Failures of Economic Development Incentives,” *Journal of the American Planning Association*, vol. 70, p. 27 (Winter 2004); Alan H. Peters and Peter S. Fisher, *State Enterprise Zone Programs: Have They Worked?* (W.E. Upjohn Institute, 2002).

10. Josh Lerner, *Boulevard of Broken Dreams: Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed—and What to Do About It* (Princeton, 2009).

11. Josh Lerner, *Boulevard of Broken Dreams: Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed—and What to Do About It*, p. 80 (Princeton, 2009). Others have similarly cast doubt on the effectiveness of loan guarantee programs. See also Simon Parker, *The Economics of Entrepreneurship* (Cambridge, 2009).

12. Josh Lerner, *Boulevard of Broken Dreams: Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed—and What to Do About It*, p. 80 (Princeton, 2009).

13. Scott Wallsten, “The Role of Government in Regional Technology Development: The Effects of Public Venture Capital and Science Parks,” Stanford Institute for Economic Policy Research, Discussion Paper No. 00-39, March 2001, p. 26–27.

Wallsten, as did Lerner, also looked at public venture funds and found “mixed success, at best.”¹⁴

Our own review of the literature examining small business development centers finds that they have never been fully evaluated. Our suspicion is that, if they were, they would likely be found ineffective. Likewise, research funded by the Kauffman Foundation performed a comprehensive review of all public and private business incubators in the United States. While incubators are a favorite tool of public policymakers, this analysis found few benefits—in fact, incubators served, in many cases, to subsidize firms that might otherwise fail.¹⁵ Another similar effort, the establishment of enterprise zones, also has been ineffective.¹⁶

Other studies have found that a state’s level of entrepreneurial activity is driven as much by non-policy factors as it is by policy and, frustratingly for scholars and policymakers, the influence of policy varies widely by state. That is, policy changes can have far more impact in some states than others, depending on demographic, historical, sociological, and cultural factors, which clearly are harder to measure and shape.¹⁷

III. POLICY RECOMMENDATIONS

With this checkered history in mind, we have attempted to develop a set of policy ideas that either have shown preliminary success but have not yet been widely adopted, or that, on first principles, seem to offer much

more promise than the failed or imperfect experiments already in place. To organize our thinking, we use a three-part framework.

First, we consider policies directed at the supply of potential entrepreneurs. Second, we look at policies that facilitate actual business creation. Third, we focus on policies that can help promote the growth and development of companies. We also devote a fourth section to, for lack of a better word, cultural matters. The unifying idea behind these is for states to promote entrepreneurship by embracing and permitting economic turbulence.

A. Supply Pipeline: What Can State Policy Do to Expand the Supply of Entrepreneurs?

A continuing debate is whether entrepreneurs are born or made. It is not necessary to resolve this issue here. Although some people are born with more entrepreneurial tendencies than others, the challenge for policymakers is to support an environment that will nurture these talents, which are found in many people, whether or not they actually launch a business. In the process, states will maximize the numbers of people who try and are likely to succeed in forming new companies.

1. Universities and Technology Commercialization

Most states view universities as engines of local, regional, and statewide economic growth. In basic ways, this is inescapably true: Universities, even relatively small ones, employ lots of people, own large swathes of land, and bring in money and talent from elsewhere. Less directly, the

14. Scott Wallsten, “The Role of Government in Regional Technology Development: The Effects of Public Venture Capital and Science Parks,” Stanford Institute for Economic Policy Research, Discussion Paper No. 00-39, March 2001, p. 26–27.

15. See Alejandro S. Amezcua, “Boon or Boondoggle? Business Incubation as Entrepreneurship Policy,” at <http://www.whitman.syr.edu/Pdfs/amezcua-boonorboondoggle.pdf>.

16. See, e.g., Alan H. Peters and Peter S. Fisher, *State Enterprise Zone Programs: Have They Worked?* (W.E. Upjohn Institute, 2002).

17. See, e.g., Yannis Georgellis and Howard J. Wall, “Entrepreneurship and the Policy Environment,” *Federal Reserve Bank of St. Louis Review*, March/April 2006, p. 95; Thomas A. Garrett and Howard J. Wall, “Creating a Policy Environment for Entrepreneurs,” *Cato Journal*, vol. 26, p. 525, 547 (Fall 2006). The study found similar variation in the impact of policy with regard to highly entrepreneurial states: “Thus, while a good portion of the Western states’ primacy in entrepreneurship was due to their policy environment, high rates of entrepreneurship in New England states was achieved despite their relatively unfriendly policy environments.”

knowledge creation that occurs inside universities has been shown over and over again to be a vital source of spillovers for surrounding areas, including an entire state.

Many successful entrepreneurs emerge from universities, sometimes as spin-offs that commercialize university research and sometimes through the licensing of technology to young companies. Yet, the system of moving innovations and ideas out of universities and into the marketplace where it can have an impact is highly inefficient and bureaucratic. In general, universities retain intellectual property rights from research funded by the federal government. While a substantial amount of university research makes it way into the economy—through billions of dollars in licensing revenues and “back door” activity—there are good reasons to believe that the present system is suboptimal in terms of what could be achieved.¹⁸ Most notably, the technology transfer offices (TTOs) at universities exercise a near-monopoly over commercialization decisions and thus serve as a bottleneck in preventing more research and innovation from making it into the marketplace. A major concern in the United States right now is whether, in the face of global competition, the country can maintain a healthy system of innovation. By tying up intellectual property, universities are only compounding the difficulties.

The Kauffman Foundation’s federal-level Startup Act, released in July 2011, recommended that the federal government, as the largest funder of academic research, take steps to improve the process of technology commercialization—specifically, to permit university faculty members to retain the right to license the technologies they develop without having to gain approval from the university TTO. Universities still could retain the intellectual

property in the technologies themselves, but the decisions to commercialize them should be driven by faculty inventors, not university bureaucracies (although TTOs can be useful in providing entrepreneurship training to their university faculty).

State governments, either directly or through their influence over state regents who oversee universities, are in an ideal position to act on this idea without waiting for the federal government to move. States are critical because much academic research takes place in state universities, and because the flagship campuses of these state systems often have as part of their missions a responsibility to contribute to the state economy. We are mindful in presenting these ideas that there is a slippery slope in terms of government meddling in academic affairs, particularly at a time when many state institutions of higher education are under budgetary strain. Indeed, in many states, the flagship state school receives only a tiny amount of state funding anymore, blurring the public-private distinction. Without resolving these issues here, we believe two ideas in particular should be implemented by states.¹⁹

First, *at a minimum*, states should encourage their universities to adopt standardized license agreements for spin-off companies, which would “eliminate the need for potentially time-consuming and costly negotiations between university TTO staff, potential licensees, and faculty inventors.”²⁰ A few places, most notably the University of North Carolina, have implemented this idea. Such “express licensing” arrangements should be easily replicable.²¹

Second, states should experiment with the free agency model of licensing we suggested for the federal Startup Act, and thereby speed up the process of breaking the TTO

18. See, e.g., Robert E. Litan and Robert Cook-Deegan, “Universities and Economic Growth: The Importance of Academic Entrepreneurship,” in The Kauffman Task Force on Law, Innovation, and Growth, *Rules for Growth: Promoting Innovation and Growth Through Legal Reform*, p. 55 (2011).

19. These ideas are drawn from Litan and Cook-Deegan (2011).

20. *Ibid.*

21. See Joseph M. DeSimone, et al., “Facilitating the Commercialization of University Innovation: The Carolina Express License Agreement,” Kauffman Foundation (April 2010).

monopoly. Free agency would give faculty (and staff and students) freedom of choice in how and where to license their innovations. As a fallback idea, a state university could agree to give the TTO a first right of refusal to innovations over a period of, say, ninety days. In either its unrestricted or limited form, free agency should “provide much stronger incentives for faculty to commercialize their discoveries more quickly,” it could “encourage specialization and thus economies of scale among licensing agents,” and would likely give rise to arrangements no one can foresee.²² But this is precisely the point: A market would replace a monopoly, generating innovation in licensing, and thus allowing more innovative ideas to work their way into the economy.

2. Health Care

Many entrepreneurs who launch new businesses leave jobs at existing companies to strike off on their own. The supply of such entrepreneurs potentially is limited by the loss of health insurance. It is uncertain how many people do not start new companies because of such “job lock,” but a leading complaint from entrepreneurs is that they have difficulty attracting employees due to the same fear.²³

We cannot know at this point what the ultimate fate of the Patient Protection and Affordable Care Act (PPACA) of 2010 will be in the Supreme Court. Most states have moved ahead in starting to implement the state-level exchanges required by the federal law. When establishing their exchanges, states can request waivers from the federal government for experiments and customized arrangements. Whether or not the Act survives, one thing states should do

is create some sort of “entrepreneurs plan” that is cheap, portable, and fungible. Some states could create additional small employer associations; at least one state we know of is working to decouple health care and employment. Details will vary by state, but creating new health care insurance options for entrepreneurs would go a long way in easing the path for new firms. Even if the PPACA is ruled invalid, states should fill the vacuum by creating these plans for entrepreneurs and young companies.

3. Occupational Licensing

Another potential supply chokepoint, and one that will vary by sector, is excessive occupational licensing.²⁴ In the United States, hundreds of professions and other occupations are licensed by states, with strictness of regulation varying by state. The median number of occupations licensed by states is eighty-eight.²⁵

Licensing has ballooned over the past several decades: The percentage of the American workforce covered by occupational licensing has grown from less than 5 percent in the 1950s to more than a fifth today. This reflects two trends, differing in intensity over time. First, there has been an increase in the number of occupations subject to licensing—or, more accurately, that seek state sanction for licensing. Second, a large share of employment growth in the United States, particularly in the last twenty years, has been in sectors and occupations already covered by licensing. This is particularly true for health care, where there is a “disproportionate prevalence” of licensing restrictions.²⁶ Licensing in health care is only natural; few patients would turn to an unlicensed physician or nurse practitioner. Indeed,

22. Litan and Cook-Deegan (2011).

23. See, e.g., Robert W. Fairlie, et al., “Is Employer-Based Health Insurance a Barrier to Entrepreneurship?” IZA Discussion Paper no. 5203, September 2010, at <http://ftp.iza.org/dp5203.pdf>.

24. See Kauffman Foundation, *License to Grow* (2012). Morris M. Kleiner, *Licensing Occupations: Ensuring Quality or Restricting Competition?* p. 99 (W.E. Upjohn Institute, 2006). Statutory licensing requirements typically include residency requirements, rules on reciprocity with other states, minimum exam score requirements, years of experience, and continuing education requirements. Occupations examined by Kleiner include physicians, dentists, teachers, accountants, barbers, and cosmetologists.

25. See, e.g., Morris M. Kleiner, *Licensing Occupations: Ensuring Quality or Restricting Competition?* p. 99 (W.E. Upjohn Institute, 2006). State-to-state variation is considerable: Kleiner found that, in 2000, the share of the workforce covered by licensing ranged from 30.4 percent in California to 6.1 percent in Mississippi.

26. *Ibid.*

medicine is perhaps the best example of why licensing exists: to ensure quality and to reduce gaps in information between providers and consumers.

But the aggregate impact of licensing, especially in other areas, is less clear—as the companion report by the Kauffman Foundation, *License to Grow*, points out. Increasingly, occupational licensing acts as a barrier to entry to innovative entrepreneurs and even established businesses seeking to provide quality services to consumers at lower cost through new business models.²⁷ Even in medicine and dentistry, there are opportunities for loosening existing restrictions to permit nurse practitioners, physician assistants, and dental hygienists to provide a wider array of services. Loosening these restrictions would stimulate new entry, competition, and lower prices for consumers without sacrificing quality of service (indeed, quality may even improve).²⁸

For many other licensed professions, certification is an alternative to licensing that state policymakers should explore. Certification still requires practitioners to meet a set of standards in order to receive a “right to title,” but it also allows non-certified people to practice the occupation, only without using the occupational title.²⁹ As Morris Kleiner notes, certification “maintains the incentives for individuals to invest in human capital but allows substitutes if consumers of the service perceive the prices rising relative to what consumers want.”³⁰ A case study comparison conducted by Kleiner suggests that certification lowers prices without affecting quality.

Even the legal profession can benefit from licensing reform, which the states are positioned to undertake because the practice of law is governed by state law.

Specialized certificates (or licenses if deemed absolutely necessary) for particular routine legal services relating to personal (estate, divorce, bankruptcy) and some business (incorporation) matters would expand market forces in this arena, while dispensing with the need for individuals to devote three years of their lives to legal studies for which many are required to borrow huge sums that can take years to repay. As *License to Grow* documents in some detail, law licensing reform could save consumers billions of dollars per year, while offering opportunities for a new wave of legal entrepreneurs.

4. Experiential Entrepreneurship Programs at Universities and Community Colleges

In the 1980s and 1990s, the number of entrepreneurship courses and degrees at colleges and universities exploded. A tendency of many, if not most, of the introductory courses in these subjects is to require students to write a business plan that can be shopped to investors. While a business plan can be useful as a new company’s internal compass, it gives a person little sense of what kind of strategic adaptation is necessary to make a business work.

Fortunately, a new wave of entrepreneurship programs in higher education has arisen to challenge the standard course model. These new programs can be understood broadly as experiential learning, giving entrepreneurs what they need in real time to succeed. Successful models of this type include the LaunchPad program at the University of Miami (since expanded to two colleges in Detroit and one in North Carolina), the Syracuse Student Sandbox, and StartX at Stanford. These programs, and more like them, have taken inspiration from for-profit startup accelerators like

27. See Kauffman Foundation, *License to Grow* (2012). Much of the research on licensing finds that it restricts supply, drives up prices, and has little apparent effect on quality. It even has been found to exacerbate inequality trends because it leads to wage dispersion (between licensed practitioners and the rest of the workforce, a trend that is acute among physicians and dentists). Further, because it drives up prices, licensing holds more benefits for high-income consumers even while the net impact is negative for everyone else. See, e.g., Kleiner (2006).

28. See Kauffman Foundation, *License to Grow* (2012).

29. See, e.g., Kleiner (2006).

30. *Ibid.*

YCombinator in California and TechStars (based in Colorado with locations elsewhere), and pioneering educators such as Steve Blank at Stanford, who are at the cutting edge of entrepreneurship education.

What seems to set these new programs apart—and to the extent we can generalize about them—is that, rather than putting students through a traditional college course and anointing them “entrepreneurs,” they teach students and others to start companies by, naturally, starting companies. Many of the programs use a “just in time” model of service provision—providing student entrepreneurs information about the startup process only as they need it, similar to how fully-fledged entrepreneurs learn—and connect student entrepreneurs to local mentors. These programs have a natural geographic dimension because the educators and mentors—and often the outside investors, too—are locally based. In the process, these programs are helping to build regional entrepreneurial networks.

State policymakers should promote and encourage experiential entrepreneurship education at all levels of higher education. We realize that the above list is not at all exhaustive and that schools across the country are experimenting with different types of entrepreneurship programs. Governors, legislators, and economic development officials can help by encouraging such experimentation and by being responsive when schools seek state support.

B. Entry Point of Business Formation: How Can States Facilitate Business Entry?

It is one thing to stimulate additional interest in entrepreneurship. It is quite another to make it as easy as possible. For a long period, the United States has been

among the easiest places in the world to launch and grow a business. That is no longer true. Other countries have caught up. There is much the states can do to vault the United States back into the lead, not just to be ahead in a proverbial horse race, but because once individuals decide they actually want to take the risk of starting a company, the government and the legal system ought not to be obstacles.

1. Reduce the Administrative Burdens of Starting and Closing Businesses

Globally, the United States ranks fourth overall in the World Bank’s Doing Business rankings, but seventy-second in terms of how easy it is for new and young companies to pay taxes, and thirteenth overall on the indicator of starting a business, which includes procedures, days, cost, and paid-in minimum capital.³¹ There is clearly much less variation from state to state in America than there is from country to country. Still, since the process of forming a company marks one of the first steps in an entrepreneur’s interaction with the state, policy changes likely can make a big difference here. When entrepreneurs have a choice of jurisdiction in which to incorporate, they look at things like how easy it is to file forms online, how readily they might later change the corporate form of their companies, and, overall, how non-burdensome the process appears.

Overall, we recommend that states do as much as they can to reduce the paperwork, time, and effort involved in the administrative niceties of firm formation. This requires an easy-to-use, “one-stop” place for business registration online and, ideally, as much consolidation of physical space for in-person registrations as well. Importantly, since business failures will accompany efforts to increase entrepreneurship, states also should make the shutdown and liability costs as low as possible.

31. See www.doingbusiness.org. Note that the test case used by the World Bank is New York City, so the ease (or difficulty) of paying taxes won’t necessarily apply to the entire country.

2. Land-Use Reform

An often-overlooked area of concern for entrepreneurs is that, even in this increasingly digital world, securing rights to a physical place to do business remains important. In the legal arena, this entails dealing with zoning laws, paying property taxes, and so on. While reforms in these areas can be accomplished only at the county or municipal level, because these powers derive from statutory law, and because states levy property taxes and some enact broad land-use laws, state policy still can help entrepreneurs in this broad arena.

Several states, for example, have comprehensive, statewide growth management regimes in place, which seek to “rationalize” land-use expansion, particularly in suburban locations. Yet, growth restrictions have been shown to limit regulatory innovation at the local level, drive up housing prices, and make new business formation more expensive.³² To limit these effects, states could implement any of the following ideas.

First, states should allow local governments to experiment with alternatives to traditional use-based zoning, particularly with land-use innovations that make property use easier for entrepreneurs. Many new businesses enjoy locating in mixed-use areas, yet many land-use and zoning laws make it difficult for municipalities to mix various uses. Law professor Nicole Garnett, for examples, promotes “entitlements subject to self-made options,” devised by Lee Anne Fennell, that would allow property owners to buy the right to a certain land-use activity.³³ This will help keep

prices down and will allow local governments to respond more quickly to, for example, the spontaneous emergence of clusters of new businesses and what economists call “agglomeration economies.” Entrepreneurs, in particular, benefit from the fluidity, spillovers, and exchange of agglomeration economies. By contrast, “growth management may impede the network effects necessary for the next wave of innovation.”³⁴

Second, states also might curtail the ability local governments and private associations (such as condominium developers) have to put restrictions on home-based businesses. While the economic clout of these businesses, in terms of employees and revenues, may not be large, the sheer volume of them (two-thirds of sole proprietorships, partnerships, and S corporations are home-based) makes them potentially important for state and local economies.³⁵ This is underscored by the small, but likely significant, number of home-based businesses that make the transition from non-employer to employer firms.³⁶ Anecdotally, at least, many promising new firms begin as home-based businesses. Accordingly, making this path less burdensome could help promote broader business formation and growth.

These ideas also would help promote inter-jurisdictional competition among towns, cities, counties, and regions. Such competition allows local governments to vie for residents and businesses and can benefit entrepreneurs by providing diverse location options and lower property taxes. Yet, many states limit inter-jurisdictional competition,

32. Many of the points in this discussion are taken from Nicole Garnett, “Land Use Regulation, Innovation, and Growth,” in The Kauffman Task Force on Law, Innovation, and Growth, *Rules for Growth: Promoting Innovation and Growth Through Legal Reform*, p. 287 (2011). See also Edward Glaeser, *The Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier* (Penguin, 2011). Housing affordability shapes migration patterns, and the effect has been increasing over time. See Alicia C. Sasser, “Voting With Their Feet: Relative Economic Conditions and State Migration Patterns,” *Regional Science and Urban Economics*, vol. 40, p. 122 (2010).

33. Nicole Garnett, “Land Use Regulation, Innovation, and Growth,” in The Kauffman Task Force on Law, Innovation, and Growth, *Rules for Growth: Promoting Innovation and Growth Through Legal Reform*, p. 287 (2011).

34. *Ibid.*

35. Henry B.R. Beale, “Home-Based Business and Government Regulation,” Small Business Administration, Office of Advocacy, February 2004.

36. See, e.g., Steven J. Davis, et al., “Measuring the Dynamics of Young and Small Businesses: Integrating the Employer and Nonemployer Universes,” in Timothy Dunne, J. Bradford Jensen, and Mark J. Roberts (eds.), *Producer Dynamics: New Evidence from Micro Data* (National Bureau of Economic Research, 2009). Roughly half of the original firms in the Kauffman Firm Survey were home-based. See www.kauffman.org/kfs.

whether by curtailing local authority over land-use regulation or through other devices like mandatory fiscal sharing.³⁷

3. Digital Firm Formation

Once a company is incorporated, the founders must build a team, which is a critical issue, sometimes more so than the business side of the company.³⁸ This goes beyond recruiting the right people and includes issues such as organizational culture and strategy, how to share the potential gains, and how to structure contracts. Culture and strategy do not—and should not—fall under the auspices of law and regulation (aside from issues of discrimination and harassment). But the manner in which a company organizes itself through contracts and what those mean for collaboration, innovation, and rewards is shaped by law. We consistently see, moreover, new and shifting arrangements in terms of how companies, particularly young companies, organize themselves and their networks of collaboration. State law can help by permitting *digital firm formation*.

It is relatively simple, as some states have done, to permit filing, formation, and fee payment to occur online. But, as Oliver Goodenough explains, “The full payoffs of convenience and new possibilities grow from allowing *all of the formal, legally mandated relations among owners, managers, and their agents to be conducted through digital means as well*”³⁹ (emphasis added). This would mean authorizing digital communication as the means for formal corporate action, and authorizing software “as the original means for setting out the agreements and bylaws that govern” the company.⁴⁰

Drawing on his experience with the two states that already have taken this step, Oliver Goodenough has persuasively argued that states are “nowhere near to capturing the full potential of digitization.”⁴¹ Accordingly, states should change their laws to create the legal platform for digital firm formation and operation.

States can expect several benefits from digital firm formation. By promoting the commoditization of many activities through new software platforms, it may help bring down the cost—in time, money, and stress—of entrepreneurs’ interaction with the legal dimensions of business creation. It also may provide for greater scope in financing.⁴² More broadly, Goodenough and others anticipate an explosion of startup possibility: “If the collaborative mashup of ideas and talents among a group of people is a frequently recurring pattern for entrepreneurial innovation, then migrating the process to the digital world can open up an exponentially larger set of innovative possibilities.”⁴³ States should create the platform for this to happen.

4. Disruptive Business Models in Education

State governments also may be able to promote the formation and growth of new private firms by exerting leverage over markets in which government essentially now has a monopoly. We have in mind principally K–12 education. Not only is this market ripe for entrepreneurial disruption—it is also a big factor in the location decisions of companies and workers. Education and other factors often are more important to firms than small differences

37. Nicole Garnett, “Land Use Regulation, Innovation, and Growth,” in The Kauffman Task Force on Law, Innovation, and Growth, *Rules for Growth: Promoting Innovation and Growth Through Legal Reform* 287, p. 304 (2011).

38. See, e.g., Martin Ruef, *The Entrepreneurial Group: Social Identities, Relations, and Collective Action* (Princeton, 2010).

39. Oliver Goodenough, “Digital Firm Formation,” in The Kauffman Task Force on Law, Innovation, and Growth, *Rules for Growth: Promoting Innovation and Growth Through Legal Reform*, p. 343, 355 (2011).

40. *Ibid.*, at 356, and Growth, *Rules for Growth: Promoting Innovation and Growth Through Legal Reform*, p. 343, 356 (2011).

41. *Ibid.*

42. “Digital management of the sale and transfer of participant interests creates the possibility of continuous equity markets in small company equity and debt.” *Ibid.*, at 364.

43. *Ibid.*, at 362.

in taxes and incentives.⁴⁴ Since it is likely that states will insist on trying to entice businesses to relocate from other states, they may as well compete on something that also can be a platform for entrepreneurship. Opening up the education sector to entrepreneurs by lowering barriers to the formation of charter schools, in particular, also could have a huge positive effect on a state's attractiveness to other, existing companies.

We are not advocating the privatization of education, but the opening up to experimentation.⁴⁵ Admittedly, there has been an enormous amount of innovation in K–12 education in recent years. The gains made by states in permitting experimentation and innovation here, however, have no equivalent in higher education, where they are needed with just as much urgency. It has become increasingly axiomatic that American colleges and universities, in the aggregate, enjoy stellar reputations but suffer from eroding foundations and falling performance across a range of indicators. This erosion has been adequately documented elsewhere and needs no elaboration here.⁴⁶ We should stipulate, too, that we do not operate from a presumption that opening up higher education to innovation is synonymous with online programs or for-profit providers. What we are interested in is how entrepreneurship—new entrants, new models—within higher education itself can improve student outcomes, the indicator that matters most.

There is already a good deal of ferment and innovation occurring in higher education in the private and public sectors, as well as some hybrids and partnerships. Barriers persist, however: "On the one hand, the state has funded public institutions in a manner that has discouraged innovation, and on the other hand, it has tightened oversight such that it dampens experimentation."⁴⁷ States obviously are not the only overseers of higher education—the federal government and private accrediting associations play prominent roles—but states can achieve or set in motion quite a bit on their own. An extended period of budgetary constraints provides not only a source of financial urgency to higher education reform but also opens up opportunities for innovation. Governors, legislators, and regulators should proceed with the following framework in mind: "Their goals should be to embrace the disruptive innovation, to focus on new measures to judge its quality, and to encourage innovation driven by improving student outcomes and lowering overall costs."⁴⁸

States already have proved that they can have a direct hand in higher education innovation—two remarkable examples are the creation of Western Governors University (an online university catering largely to adults) and the branch campus of University of Minnesota-Rochester (a new university that embraces both strong teaching and multi-disciplinary interaction).⁴⁹ The point has been made: States can encourage entrepreneurship in a sector heretofore protected or assumed to be in no need of innovation.

44. "However, the costs of locally supplied labor are about 14 times states' and local business tax costs. Regional variations in construction, transportation, and energy costs are often larger than variations in state and local taxes and, presumably, development incentives." Peter S. Fisher and Alan H. Peters, "Tax and Spending Incentives and Enterprise Zones," *New England Economic Review*, March/April 1997, p. 109, 111.

45. See Kauffman Foundation, *License to Grow* (2012).

46. See generally Ben Wildavsky, Andrew P. Kelly, and Kevin Carey (eds.), *Reinventing Higher Education: The Promise of Innovation*, p. 11, 39 (Harvard Education, 2011); Clayton M. Christensen and Michael B. Horn, "Colleges in Crisis: Disruptive Change Comes to American Higher Education," *Harvard Magazine* (July–August 2011); Louis Menand, "Live and Learn," *The New Yorker*, June 6, 2011.

47. Dominic J. Brewer and William G. Tierney, "Barriers to Innovation in U.S. Higher Education," in Ben Wildavsky, Andrew P. Kelly, and Kevin Carey (eds.), *Reinventing Higher Education: The Promise of Innovation*, p. 11, 23 (Harvard Education, 2011).

48. Clayton M. Christensen and Michael B. Horn, "Colleges in Crisis: Disruptive Change Comes to American Higher Education," *Harvard Magazine* (July–August 2011), p. 42.

49. See John Gravois, "The College For-profits Should Fear," *Washington Monthly*, September/October 2011; Kevin Carey, "The Mayo Clinic of Higher Ed," in Ben Wildavsky, Andrew P. Kelly, and Kevin Carey (eds.), *Reinventing Higher Education: The Promise of Innovation*, p. 225 (Harvard Education, 2011).

One reform option is for states to allow and promote the formation of charter universities and colleges, akin to charter schools in K–12 education.⁵⁰ This type of school would be free from many of the requirements that, among other things, help drive up costs. Nearly every single college or university adheres to a similar model of operations. A charter university, like a charter school, would be free to experiment with different ways of educating students and serving communities. Such schools, operating with autonomy and the freedom to innovate, would be the most direct way for states to promote new entry into higher education.

States also should push institutions of higher education to be more responsive, flexible, and generally more attuned to the pace and requirements of entrepreneurial capitalism. The conventional icon of a college student—attending four-year institutions, living on campus—is now a small minority of undergraduates. “Non-traditional” students—part-time, older, attending two-year schools—are the new norm of higher education. Yet, for the most part, many regulations and policies are geared toward the pop culture stereotype, which limits options for the vast majority of students and erects barriers to entry to those who aim to serve the latter group.⁵¹ Likewise, states should strongly encourage and incentivize differentiation in the higher education sector, which will spur innovation and pave the way for new entrants.⁵²

C. The Growth and Development of Firms: How Can State Policy Help?

The best economic payoff—in terms of jobs and spillover benefits to other firms—from the formation of new firms comes when some fraction of them grow, ideally as rapidly as possible consistent with achieving sustained profitability. Remarkably, the top 1 percent of growing firms of all ages account for 40 percent net new jobs created in any given year. Fast-growing young companies (those less than five years old), or about 1 percent of all companies, account for 10 percent of net new jobs.⁵³ An important challenge policymakers at all levels of government face is to increase the number of fast-growing job creators or to enhance the pace at which the most successful firms expand. Some ideas for how state policymakers can meet this challenge follow.

1. Talent

We know that a leading challenge for entrepreneurs is recruiting talent—this is a particular concern for growing companies.⁵⁴ States can help in multiple ways, including fostering a supply of skilled, entrepreneurial workers and the mobility of those individuals. If one glances, for example, at the top and bottom of the Beacon Hill Institute’s state competitiveness rankings, it is quickly apparent that the main thing separating the most and least competitive states is their “human resources” component. This includes health

50. “There is no public charter university in any state. Over a decade ago, then-Chancellor Barry Munitz invited the California State University (CSU) campuses to become a charter university where they would have increased autonomy and reduced regulation; not a single administration or faculty group wanted to move away from what was then perceived as the security of state funding and operation. Indeed, when California decided to expand its campuses for the UC and the CSU systems the institutional leaders and faculties chose to create institutions that were far more similar than different from what currently existed.” Dominic J. Brewer and William G. Tierney, “Barriers to Innovation in U.S. Higher Education,” in Ben Wildavsky, Andrew P. Kelly, and Kevin Carey (eds.), *Reinventing Higher Education: The Promise of Innovation*, p. 11, 23 (Harvard Education, 2011).

51. See, e.g., Frederick Hess, “Old School: College’s Most Important Trend is the Rise of the Adult Student,” *The Atlantic*, September 2011.

52. “A disciplined state legislative approach could force public universities and colleges to become more focused and better delineated, eliminating duplication, and speeding up the time to degree.” Dominic J. Brewer and William G. Tierney, “Barriers to Innovation in U.S. Higher Education,” in Ben Wildavsky, Andrew P. Kelly, and Kevin Carey (eds.), *Reinventing Higher Education: The Promise of Innovation*, p. 11, 35 (Harvard Education, 2011).

53. See Dane Stangler, “High-Growth Firms and the Future of the American Economy,” Kauffman Foundation Research Series on Firm Formation and Economic Growth, March 2011, at <http://www.kauffman.org/uploadedfiles/high-growth-firms-study.pdf>.

54. See, e.g., Hal Weitzman and Robin Harding, “Skills Gap Hobbles US Employers,” *Financial Times*, December 13, 2011.

and unemployment, but the most important factor is the education of a state's workforce. Without exception, the most competitive states outperform the rest of the country on education factors, while the least competitive states underperform.⁵⁵

A reliable supply of talent is necessary, but insufficient either for growing companies or economies. That talent must be mobile—free to switch jobs, change companies, and start new businesses. Such mobility helps create what has been called a “high-velocity labor market,” and can do a great deal to enhance firm-level productivity in a given region.⁵⁶ Many states, in hopes of re-creating Silicon Valley, enact all manner of public programs to promote and help entrepreneurs, but leave in place a legal framework that adheres to a different model of employment. A state may excel at education or research, but have a moribund startup culture because labor market flexibility is limited.

One way labor mobility can be suppressed is through covenants not to compete, or non-compete agreements: agreements between a company and an employee that the employee will not leave and join a competitor or start a new, competing business. The reason this matters for state policy is that states vary in their enforcement of these legal arrangements, which affects the mobility of talent and ideas and, thus, a state's economic performance. Some studies, for example, have found that full enforcement of non-competes reduces startup activity, patents, and venture capital. Colorado and (famously) California, for example, do not enforce non-compete agreements, while New

Jersey's enforcement is vigorous, which law professor Alan Hyde cites as a possible reason why states differ in their entrepreneurial activity.⁵⁷

Perhaps the most compelling research on the impact of non-compete agreements and state enforcement has been done by Matt Marx and others. They point out that, even if the supply of talent in a given geographic area is adequate, startups still have difficulty attracting workers: “Unless they are content to recruit talent from universities or from the ranks of the unemployed, startups must attract workers from existing firms. Thus entrepreneurial regions rely heavily on fluid inter-organizational mobility of workers.”⁵⁸ The movement of workers between firms is concentrated particularly in new and young companies, underscoring their contribution to productivity and innovation.⁵⁹

It can be argued that, without enforcement of non-compete agreements, employers will lose the incentive to invest in training their employees, thus leading to a general decrease in skills across an entire area. To the contrary, however, research has shown that non-compete agreements and their strong enforcement actually leads employees, when they change jobs, to move to different industries, which results in a downgrade of human capital. More importantly, economists have found a brain drain from enforcing states to non-enforcing states: “The brain drain appears to be more pronounced among the most productive and collaborative knowledge workers.”⁶⁰

As it pertains to the level of business creation—rather than the flow of workers to new and young companies—

55. Beacon Hill Institute, *Tenth Annual State Competitiveness Report* (2010), at <http://www.beaconhill.org/Compete10/Compete2010State.pdf>.

56. See Alan Hyde, “Should Noncompetes Be Enforced?” *Regulation*, Winter 2010–11, p. 6.

57. See Alan Hyde, “Should Noncompetes Be Enforced?” *Regulation*, Winter 2010–11, p. 6; Ronald J. Gilson, “The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete,” 74 *NYU Law Review* p. 575 (June 1999).

58. Matt Marx and Lee Fleming, “Non-compete Agreements: Barriers to Entry ... and Exit?” in Josh Lerner and Scott Stern (eds.), *Innovation Policy and the Economy*, vol. 12 (2011).

59. See, e.g., John Haltiwanger, “Job Creation and Firm Dynamics in the U.S.,” in Josh Lerner and Scott Stern (eds.), *Innovation Policy and the Economy*, vol. 12 (2011).

60. Marx and Fleming (2011). See also Matt Marx, Jasjit Singh, and Lee Fleming, “Regional Disadvantage? Non-Compete Agreements and Brain Drain,” Working Paper, September 2010, at <http://www.hbs.edu/units/tom/seminars/docs/braindrain100925.pdf>.

the issue is less clear-cut. New businesses, because they are endeavors in uncertainty, require the ability to hire from existing firms, as noted above.⁶¹ But it is not clear that founders and early employees always come from the same industry as that in which they are starting a new business. We know that many entrepreneurs leave jobs at established companies—in the 5,000 firms tracked in the Kauffman Firm Survey, two-thirds had at least six years of previous industry experience.⁶² This means that many entrepreneurs likely will be starting companies that might compete with their former employers—or serve as customers or vendors. They have ideas, training, expertise, and networks, and this “entrepreneurial spawning” should be encouraged.⁶³ Yet, other research has found that, among fast-growing companies, nearly half of the founders had zero prior industry experience.⁶⁴ Irrespective of an entrepreneur’s prior industry experience, however, new businesses will do better in an environment of worker mobility and labor market flexibility.

We are not prepared to recommend that every state simply cease enforcing non-compete agreements. Indeed, many states continue to alter their statutes regarding non-compete agreements and, for the most part, non-competes generally are enforceable across states, with some variation as to what constitutes “reasonable” restrictions. What we recommend is that each state look hard at its legislative policy and judicial doctrine on the matter and

make a calculated decision as to whether lax or vigorous enforcement will better serve its objectives.⁶⁵ If a state seeks to promote higher entry by new businesses and help them hire and grow, then perhaps more relaxed enforcement is called for. If a state seeks to bolster the economic health of its existing businesses—perhaps because the state’s economy relies heavily on sectors with larger and older companies—then non-compete enforcement might remain appropriate policy.⁶⁶

2. Credit Unions as Potential Pieces of Entrepreneurial Communities

Entrepreneurs typically tap their own savings, credit cards, cash flow, and bank loans as their primary sources of finance, and the mix obviously varies. State governments cannot do too much to affect these sources, and those efforts that have been tried have generally proven ineffective. While we believe there is a great deal more a state can do, cheaply and more effectively, in non-financial areas, there is perhaps one financial institution that could play a larger role in helping entrepreneurs: credit unions, which we believe are generally under-utilized as financial sources for entrepreneurs. One reason is that the cap on their small business lending, for purely commercial (and risk-related reasons) is lower than that of commercial banks. Another reason could be that, in nearly every state, credit unions are not allowed to directly invest in young and small companies.

61. See also Alan Hyde, *Working in Silicon Valley: Economic and Legal Analysis of a High-Velocity Labor Market* (M.E. Sharpe, 2003).

62. See Janice Ballou, et al., “The Kauffman Firm Survey: Results from the Baseline and First Follow-Up Surveys,” March 2008.

63. Paul Gompers, Josh Lerner, and David Scharfstein, “Entrepreneurial Spawning: Public Corporations and the Genesis of New Ventures, 1986–1999,” *Journal of Finance*, vol. 60, p. 577 (April 2005).

64. See, e.g., Amar Bhidé, *The Origin and Evolution of New Businesses* (Oxford, 2000).

65. Marx and Fleming, for example, point out that some states exempt certain sectors or occupations from non-competes. See Matt Marx and Lee Fleming, “Non-compete Agreements: Barriers to Entry ... and Exit?” in Josh Lerner and Scott Stern (eds.), *Innovation Policy and the Economy*, vol. 12 (2011).

66. “Entry is less likely to occur given non-competes because would-be founders find it more difficult to start companies in the same industry. Moreover, even once founded it is more difficult for nascent ventures to attract talent from companies that use non-competes because they are less able to reliably promise to mount a defense against a lawsuit from the former employer. Thus policymakers whose aim is a robust entrepreneurial ecosystem may be less sympathetic to non-competes, whereas those interested in sustaining existing firms in their regions will likely look upon such contracts more favorably.” Matt Marx and Lee Fleming, “Non-compete Agreements: Barriers to Entry ... and Exit?” in Josh Lerner and Scott Stern (eds.), *Innovation Policy and the Economy*, vol. 12 (2011).

We recommend that states consider raising the lending cap as well as allowing credit unions to take equity stakes in entrepreneurial companies (subject to an overall asset cap, especially as equity investments generally are illiquid). We realize that it may not be possible, legally or as a practical matter, for employer-based credit unions to foster entrepreneurship, which would mean facilitating the exit of employees, and thus credit union members, from the firm and the credit union. But credit unions with broader, community memberships could prove to be key players in building entrepreneurial communities.

3. Taxes

At first glance, it would appear that the relationship between taxes, both personal and corporate, and entrepreneurship should be clear-cut. If business founders are permitted to keep more of what they earn, more people should be motivated to start growing companies.

In reality, however, the empirical evidence on the relationship between taxes and entrepreneurship is mixed, as suggested in a review of literature on entrepreneurship and taxes by highly regarded economist and entrepreneurship expert William Baumol and his colleagues. Some studies find that higher marginal tax rates will stimulate entrepreneurship (perhaps because it is easier to claim what otherwise would be expenses as business deductions or, as some economists claim, to hide income

in self-employment), while others focus on the disparity between income and corporate taxes. Still more find little relationship between business taxes and investment.⁶⁷ Baumol and his colleagues recommend “a regressive business tax in which the firm is subjected to a *lower tax rate the faster the percentage rate of growth of its output and sales.*”⁶⁸ Past a certain point, reductions in taxes also will undermine the public goods, such as infrastructure and educational systems, that are just as important to entrepreneurs and their employees.⁶⁹

What a state must avoid are taxes and regulations that distort business activity by favoring one sector over another. Tax credits and incentive programs do just this, distorting the environment not only for new and young firms but for all other companies in the state as well—costs are shifted as the tax base narrows.⁷⁰ Yet, nearly every state offers business tax incentives: At last count, forty-one states offered corporate income tax exemptions, forty-five offered tax incentives for job creation, and forty-nine allowed sales and use tax exemptions on new equipment.⁷¹

The total tax burden in a state is probably less important than the type and structure of taxes.⁷² In particular, some studies have shown that property taxes have a negative impact on new businesses because they must be paid irrespective of company performance.⁷³ But states also have converged in how they raise revenue.

67. William J. Baumol, et al., “Innovative Entrepreneurship and Policy: Toward Initiation and Preservation of Growth,” in Giorgio Calcagnini and Ilario Favaretto (eds.), *The Economics of Small Businesses: An International Perspective*, p. 3 (Springer, 2011).

68. *Ibid.*, at 17 (“This arrangement clearly would not be unfair to small firms, for which a given percentage increase in sales may be easier to achieve than it is for a firm that already has a large share of the market. Yet such a tax also would provide an incentive for enhanced investment, and lead to a shift in investment from markets and industries with low growth prospects into others where the opportunities for growth are greater.”)

69. Importantly, “lower taxes obtained by increased government efficiency would be expected to have beneficial effects.” Stephan J. Goetz, et al., “Sharing the gains of local economic growth: race-to-the-top versus race-to-the-bottom economic development,” *Environment and Planning C: Government and Policy*, p. 428, 446 (2011).

70. “If a state needs to offer such packages, it is most likely covering for a woeful business tax climate.” Kail M. Padgitt, “2011 State Business Tax Climate Index,” Tax Foundation, Background Paper No. 60, October 2010. One study found that tax assistance programs are associated with lower rates of job growth. See Stephan J. Goetz, et al. (2011).

71. See Jennifer Burnett, *State Business Incentives: Trends and Options for the Future*, Council of State Governments, October 2011.

72. “While it is unquestionably important how much revenue states collect in business taxes, the manner in which they extract tax revenue is also important.” Kail M. Padgitt, “2011 State Business Tax Climate Index,” Tax Foundation, Background Paper No. 60, October 2010.

73. Timothy J. Bartik, “Small Business Start-Ups in the United States: Estimates of the Effects of Characteristics of States,” *Southern Economic Journal* (1989); Kail M. Padgitt, “2011 State Business Tax Climate Index,” Tax Foundation, Background Paper No. 60, October 2010.

In the last three decades of the twentieth century, nearly every state increased its reliance on individual income taxes relative to sales taxes, even though sales taxes still constitute the bulk of state tax revenue. The most divergence among states is on corporate income taxes—even though such taxes only raise a small amount of revenue compared to individual income and sales taxes, the variability from state to state likely makes large differences to businesses.

Corporate income taxes, in addition to being more variable from state to state, also have a more plausible impact on entrepreneurship. Again, though, evidence is mixed because of myriad credits and exemptions that states grant, the differential performance of young companies in terms of net income (on which most, but not all, types of corporate taxes are levied), and the rapid growth over the past decade and a half in the use of the limited liability company form.⁷⁴ Researchers have found, moreover, that it is not necessarily the marginal rate level that negatively affects firms, but complexity due to credits and exemptions. The effect of a complex corporate tax structure is that it drives up compliance costs and introduces distortions if there are multiple layers of applicability, creating inequities in how different firms are taxed.⁷⁵ Some research also has found that states offering more corporate tax incentives and credits tend to have unwieldy and unfriendly tax structures in the first place.

The best option, in our view, is to pursue simplicity and a wide base in the corporate income tax structure. Simplicity and a wide base are particularly important for young, growing companies, on whom greater complexity and more distortions will inflict a higher burden of compliance.⁷⁶

5. Apprenticeships

Many states already fund a variety of internship programs for students. But there is a perpetual gap in exposing students to new and young companies, on one hand, and on the other, those companies' need to find and recruit talent. States should create, through high schools, vocational schools, community colleges, and universities, apprenticeships for students in new and young companies. We call these apprenticeships rather than internships because they will specifically aim to expose students to the idea of entrepreneurship and the experience of working in that environment. They will act as another type of entrepreneurship education program.

D. Culture: What Else Can States Do?

Finally, although it is difficult to measure, local culture—molded by norms and institutions—can have a powerful effect on individuals' propensity for wanting to be entrepreneurs or working for startups. Moreover, success begets success, so that a positive entrepreneurial culture is self-reinforcing, while, conversely, a big-firm culture can be inimical to the formation and growth of new companies (though not always, because big firms buy from startups and, if the legal environment permits, some of the best entrepreneurs once worked for larger enterprises).

Culture is difficult for policymakers to directly affect. Nonetheless, state policymakers can do certain things to nudge matters in the right direction.

1. Welcome Immigrants

Immigrant entrepreneurs have been enormously important to the American economy. From 1995 to 2006,

74. The owners of an LLC can choose how they would like to be taxed: as a partnership, in which business income passes through to the owners as personal income and so is not subject to double taxation, or as corporate income. Some researchers have found that the proliferation of LLCs helps account for the falling levels of state corporate income tax revenues. See, e.g., William F. Fox and LeAnn Luna, "Do Limited Liability Companies Explain Declining State Corporate Tax Revenues?", p. 33, *Public Finance Review* 690 (2005).

75. See, e.g., Jed Kolko, David Neumark, and Marisol Cueller Mejia, "Public Policy, State Business Climates, and Economic Growth," National Bureau of Economic Research Working Paper 16968, April 2011.

76. See, e.g., Donald Bruce and John Deskins, "Can State Tax Policies be Used to Promote Entrepreneurial Activity?" *Small Business Economics* (2010).

for example, immigrants founded or co-founded one-quarter of all technology and engineering companies in the country.⁷⁷ These immigrant firms comprised less than 1 percent of all companies founded during this period, yet accounted for close to 10 percent of job creation. Immigration policy clearly raises issues relating to federal preemption, but more than one state in recent years has taken immigration matters into its own hands. These attempts have dealt almost exclusively with illegal immigration, proving that states can take actions to make themselves less attractive to immigrants of all kinds, including those who would start companies and create jobs.

State policy options obviously are limited here, but there is nothing to stop a state from branding itself as immigrant-friendly, as one that is welcoming to immigrants who study in public universities, start companies, and so on. In particular, state officials—from the governor on down—can host meetings of immigrant entrepreneurs and make it known that the state values them and their connections, both inside and outside the United States. Moreover, in addition to outreach programs in foreign countries that promote tourism, products, and services provided by firms located in their states, state officials also can reach out to potential immigrants to let them know that their states welcome them if they come. Being able to connect immigrant entrepreneurs to local networks of immigrants also can help make these immigrants feel more “at home” in a state even before they arrive, or as they are considering where to live.

2. Foster Networks of Entrepreneurs and Their Funders

Many would-be entrepreneurs think money is the most important key to their success, but a growing body of evidence confirms that it is their access to networks—of other entrepreneurs, potential employees, potential funders, and service providers (such as lawyers and accountants experienced in assisting startups)—that is perhaps the most important factor that will determine their future success.⁷⁸ Recent work by Ted Zoller shows that networks of *serial entrepreneurs* or *funders*—are especially important, because entrepreneurial “players” refer deals to one another, form partnerships, and often help each other. Areas where these networks are “thick”—such as Silicon Valley and San Diego—not surprisingly are also locations where entrepreneurial activity is “hot.”⁷⁹

State officials—especially governors—can facilitate the formation and nurturing of these networks. Such simple steps as organizing regular dinners or breakfasts of key entrepreneurial players to ensure that they each know one another can go a long way toward creating and/or nurturing these networks.

3. Celebrate Examples

Governors and legislators, who have high public visibility in their states, should use it to celebrate examples of successful entrepreneurs and role models for aspiring entrepreneurs. It is difficult to measure the *zeitgeist* of a location, but every entrepreneurial community in the United States has a stable of stories that get told over and over

77. See Vivek Wadhwa *et al.*, “America’s New Immigrant Entrepreneurs, Part II,” Kauffman Foundation, June 3, 2007, at http://www.kauffman.org/uploadedfiles/entrep_immigrants_2_61207.pdf.

78. See, e.g., Toby E. Stuart & Olav Sorenson, “Strategic Networks and Entrepreneurial Ventures,” *Strategic Entrepreneurship Journal*, vol. 1, no. 3 (December 2007), p. 211–227.

79. Ted Zoller, of the University of North Carolina-Chapel Hill and the Kauffman Foundation, has conducted this research into networks of what he calls dealmakers, creating a “Dealmakers Algorithm.” See, e.g., “Funding New Ventures: One-on-One with Ted Zoller,” at <http://www.kenaninstitute.unc.edu/news/zoller.htm>; Danny Schreiber, “Using His Dealmaker’s Algorithm, Ted Zoller, Ph.D. Helps Entrepreneurs,” *Silicon Prairie News*, June 23, 2010, at <http://www.siliconprairienews.com/2010/06/using-his-dealmaker-s-algorithm-ted-zoller-ph-d-helps-entrepreneurs>.

again and become a shared narrative. This helps perpetuate the idea that entrepreneurship is an accepted pursuit. But entrepreneurs, even successful ones, sometimes are invisible to the general public. If residents see state officials highlighting entrepreneurship and those engaged in starting companies, it immediately will help shape that state's culture.

4. Measurement

One of the most important, if least sexy, things a state can do is to improve the measurement and tracking of new businesses and their development. Numerous datasets already exist, but they all have their own shortcomings. Plenty of room for innovation exists in this area. Traditional economic development efforts have been plagued by inappropriate counting techniques and difficulty in assessing a program's success or failure. Better, more detailed metrics also would give policymakers at all levels a good idea of their progress in promoting entrepreneurship.

Such a dashboard would include: new firm formation; firm survival and exit; sector and sub-sector breakdowns matched to federal NAICS codes; job growth and loss; geographic breakdown at the state, metropolitan area, and possibly county levels; commercialization of university research (licenses, spin-outs); investment in companies by type (venture capital, angel investors, corporate venture, etc.); and so on. One leader we have found in this regard is the Missouri Economic Research and Information Center (MERIC).⁸⁰ While the potential for improvement in data collection is likely infinite, MERIC does an admirable job tracking new business formation, job growth, and fast-growing companies.

IV. CONCLUSION

If there can be said to be a consensus regarding public policy and entrepreneurship, whether among economists or entrepreneurs, it is that the process of turbulence should be allowed to proceed uninterrupted—firms starting and failing, hiring and firing people, and so on.⁸¹ This process is the essence of productivity gains. Such a consensus explains why things like science parks, traditional incubators, and targeted tax incentives historically have experienced modest and negative outcomes. It also explains why ideas such as relaxed enforcement of non-compete agreements, eased occupational licensing, and land-use reform might go a long way toward promoting entrepreneurship in a state. The vitality of economy comes not only from the creativity, but also from the creative destruction—what Joseph Schumpeter termed almost a century ago.

This document was primarily drafted by Kauffman Foundation researchers Dane Stangler, Robert Litan, and Yasuyuki Motoyama, with helpful input from other Kauffman associates.

80. See <http://www.missourieconomy.org>.

81. See, e.g., Peter A. Zaleski, "Start-Ups and External Equity: The Role of Entrepreneurial Experience," *Business Economics*, vol. 46, p. 43 (January 2011).

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