Roundtable on Developing and Strengthening High-Growth Entrepreneurship
Perspectives from the Information Technology and Innovation Foundation (ITIF)
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Introduction

Thank you to the U.S. Senate Committee on Small Business and Entrepreneurship and to its Chairman, Senator Landrieu, for the invitation to participate in this roundtable on *Developing and Strengthening High-Growth Entrepreneurship*. The roundtable takes up a crucial subject to revitalizing the U.S. economy. Evidence clearly shows that it is young, high-growth firms that are responsible for the lion's share of employment growth.

In fact, new and young firms have been the primary source of new jobs in the United States over the past three decades. Analysis of U.S. Census Bureau data has shown that companies less than five years old created nearly two-thirds of net new jobs in 2007. And an OECD study found that from 1992-2005, business start-ups accounted for 140 percent of the net growth in employment in the United States. This is true for U.S. states as well. For example, Pennsylvania found that a mere .3 percent of firms (less than one-third of one percent) created 74 percent of all the net new jobs created over a ten year period of time.

There are a number of policies the U.S. Senate's Committee on Small Business and Entrepreneurship should consider enacting or promoting that are positioned to support the growth of entrepreneurship and small business development in the United States.

R&D Tax Credits

Congress should make the U.S. R&D tax credit both permanent and more generous. An increasing number of U.S. competitors are offering more generous R&D tax credit regimes. For example, France offers an R&D tax credit six times more generous than the U.S. credit. Spain's credit is five times more generous. In fact, the United States ranks just 24th out of 38 countries assessed by the OECD in tax credit generosity, behind even Brazil, China, and India.

In many countries R&D tax credits are more generous for smaller firms (e.g. Belgium, Canada, the Netherlands, Norway, and the United Kingdom). Some countries offer preferential tax treatment to young innovative companies, such as immediate cash payment rather than use of carry-forward and carry-backwards provisions (as in Canada, France, Norway, and the United Kingdom). France's JEI program allows young innovative companies an exemption from corporate income tax for the first three years and a 50 percent discount for an additional two years up to a ceiling of €200,000 over 36 months; and offers relief from local taxes on properties for up to seven years. **The U.S. Congress should consider offering preferential tax treatment to young innovative companies, such as a tradable R&D tax credit in addition to the current carry-forward and carry-backwards provisions.**

U.S. firms invest half as much as they did a decade ago on workforce training. Since the benefits of worker training spill over to other firms (and to society at large) when an employee departs, companies underinvest in workforce training to the societally optimal level. Companies also underinvest in new capital equipment/machinery even though this could make them more productive. **Therefore, Congress should consider expanding the R&D tax credit into an innovation tax credit that would also allow firms to deduct investments in workforce training and capital equipment/machinery expenditure beyond a certain baseline.**

Directly Support Innovation through an Innovation Voucher System

Several countries, including Austria, Canada, Belgium, Denmark, Germany, the Netherlands, Ireland, and Sweden have begun using Innovation Vouchers to support R&D, innovation, and new product development in small businesses. SMEs can receive a $5,000-$7,500 voucher for a cooperation project with a university, community college, or research institution for R&D assistance, technology feasibility studies, analysis of technology transfer, analysis of the innovation potential of a new technology, etc. This creates an incentive to bring SMEs and academia closer together and also empowers innovation at SMEs.

The Netherlands' innovation agency, Senter Novem, was the first to create an Innovation Voucher program, in the early 2000s. Like Austria's program, Holland's enables SMEs to "buy" expertise from public research institutions, universities, or large corporations, with the intent of stimulating knowledge transfer to SMEs. Senter Novem has found that the program substantially stimulates innovation—eight out of ten vouchers issued resulted in an innovation that would not have otherwise come to fruition and 80 percent of new R&D jobs created in Holland since 2005 are attributable to the vouchers. **Congress should consider establishing an innovation voucher program funded at $50 million annually, with firms of less than 250 employees eligible to participate. The program could be operated by state governments, who to be eligible would have to match federal support dollar-for-dollar.** One advantage of such a program is that it would spur research funding at universities and federal labs.

Launch a Spurring Commercialization of Our Nation's Research (SCNR) Program

The current federal system for funding research pays too little attention to the process of commercialization (which is chock full of barriers). **Congress should create an SCNR—Spurring Commercialization of Our Nation's Research—program that takes a modest percentage of federal research budgets and allocates them to a technology commercialization fund.** Congress should allocate 0.15 percent of agency research budgets (around $110 million per year) to fund university, federal laboratory, and state government technology commercialization and innovation efforts. The 0.15 percent share could either be added on top of the existing 2.8 percent allocation currently going to SBIR and STTR, or it could be taken from the SBIR share. The SCNR program would be modeled after the SBIR and STTR programs, but would be designed specifically to support university, state, and federal laboratory technology commercialization initiatives.

Half the funds would go to universities and federal laboratories that could use the funds to create a variety of different initiatives, including mentoring programs for researcher entrepreneurs, student entrepreneurship clubs and entrepreneurship curriculum, industry outreach programs, seed grants for researchers to develop commercialization plans, etc. The other half would go to fund state technology-based economic development (T-BED) efforts.

Establish stronger university entrepreneurship metrics

Congress should help establish stronger university entrepreneurship metrics. This could be achieved in several ways. First, the United States could collect better data on faculty new business starts and spin-offs of new companies from universities. Congress could direct the National Science Foundation (NSF) to develop a metric by which universities report that information annually. NSF could use this data to reward universities that do a better job; for example, also giving bonus points on research grant proposals they receive. Applicants from universities that do a great job of promoting entrepreneurial spinoffs/start-ups would be more likely to have their private investigator grants funded. In addition, the Department of Commerce should use data available through the ES-202 form (Unemployment Insurance Tax Records), which tracks how many employees an establishment has every quarter. The form could also be made to note the university that the founder of the organization attended, and then that information could be combined, anonymously, to find out which colleges and universities have graduates that are founding and running the most high-growth businesses.

Create a Unified, National, Online One-stop Shop for New Business Registration

Make small business registration much easier in the United States by having the Federal CIO redesign business.gov. **Congress could direct the federal CIO to undertake a *strategic design review* of the federal and state small business registration process**, redesigning it to create an integrated business registration Website encompassing both federal and state requirements and contemplating the entire lifecycle of needs for small business start-ups, thus creating a *one-stop shop* for business registration in the United States.

For example, Portugal went from requiring 20 different forms to create a business (a process that took up to 80 days) to a digitalized process based on one Website. A firm can be created in just a few days using its new "Firm Online" program. 60,000 new Portuguese businesses have registered that way in less than two years.

Reform university engineering curriculum towards more project-based learning and entrepreneurship

The United States needs to transform its colleges into entrepreneurial factories. But traditional universities, taught and administrated by traditional staff, rarely deviate from conventional methods of teaching, yet as the needs of the modern workforce become focused on broad skill sets such as logic, writing, and thinking and less on learning specific facts, such teaching methods have become anachronistic. The United States needs to encourage the development of completely new schools based on the needs of the current workforce. For example, the Olin College of Engineering in Massachusetts reimagined engineering education and curriculum to prepare students "to become exemplary engineering innovators who recognize needs, design solutions, and engage in creative enterprises for the good of the world." The college does not have separate academic departments and all faculty members hold five-year contracts with no opportunity for tenure. Olin College's new method of teaching engineering has been widely praised amongst engineering firms; other colleges and universities should seek similar innovations. On a per-student-graduated basis, Olin graduates start more new businesses than even MIT graduates.

Moving science, technology, engineering, and math (STEM) undergraduate and graduate education towards a more interdisciplinary model would not only attract more students to STEM, but also improve the quality of STEM education. **For truly transformative change to a more interactive, interdisciplinary model of STEM education, Congress should provide funds for NSF and NIH to allocate grants of up to $10M/year for institutional transformation.** For additional recommendations, please see ITIF's report *Refueling the U.S. Innovation Economy: Fresh Approaches to Science, Technology, Engineering, and Math (STEM) Education*.

Provide Support for Recent PhD Graduates to Work at SMEs

Australia's *Researchers in Business* grants allow businesses to bring a researcher from a university or public research agency into the business to help develop commercial ideas. Australian businesses selected to receive a *Researchers in Business* grant receive funding for up to 50 percent of salary costs, to a maximum of $53,000, for each placement for between two and twelve months. In a similar program, Canada's IRAP provides direct financial support for Youth Employment in Canadian SMEs, funding up to $30,500 in salary for twelve months for recent college or university graduates employed by SMEs. **Congress could consider creating a grant program that would defer the cost of (or perhaps provide an R&D credit for), SMEs to hire recent university PhD graduates for up to a twelve-month period.**

Spur inclusion of entrepreneurship opportunities for STEM college students

Expanding the ability of STEM students to engage in STEM entrepreneurship will not only boost innovation and jobs, it will increase the quality and attractiveness of STEM education. There are a number of steps that should be taken. With federal agency cooperation, universities should define an entrepreneurial leave policy for students in which they could retain full-time student status for one to two years while launching their own company. In addition, federal agencies supporting university research in STEM should adopt a policy whereby any graduate or post-doctoral student on an assistantship, fellowship, or other form of federal support can petition for a no-cost extension of their assistantship, fellowship, or traineeship, which would allow them to take a "entrepreneurial leave" for one to two years to start a company, and be guaranteed their former student position on their return.

Also, **Congress should make the necessary changes to SBIR authorization to enable students on "entrepreneurial leave" to fund their startups using SBIR monies**; individuals who are currently full-time graduate or post-doctoral students would be explicitly eligible for such awards, even if they are foreign nationals, as long as their business is located in the United States. In addition, Congress should work with the Department of Homeland Security to ensure that students who receive SBIR funding (and derive their salaries from that funding) while on official "entrepreneurial leave" are still defined as full-time students, and not company employees, for visa purposes.

Create a "Web-based mentor matching program"

This would be akin to an Online Mentor Corp. The idea here is that there may be individuals willing to be mentors but who aren't able or willing to travel (e.g. the retired executive now living in Florida or Arizona) or who are simply in different locations, but who could mentor a company in Ohio for a couple hours a week. So the idea is to create a Web-based matching tool that would vet start-ups and vet the mentors, and then they could use video-conferencing for the mentorship meetings.

Re-focus SBA's SBIC (The Small Business Investment Company) on earlier-stage, smaller deals

Since it was revised over a decade ago, SBIC has been an effective tool. However, to the extent the program provides lower cost capital to venture firms investing in late stage and large deals, it is not fulfilling its purpose of addressing market failure or limitation. **Thus, to increase capital for startups, Congress should restructure the Small Business Invest Companies (SBIC) program so that at least 35 percent of the funded company investments go to early and small deals.**

Do not apply the Volcker Rule to venture capital funds and investments

The Volcker Rule would restrict United States banks from making certain kinds of speculative investments that do not benefit their customers. The proposal specifically prohibits a bank or institution that owns a bank from engaging in proprietary trading that isn't at the behest of its clients, and from owning or investing in a hedge fund or private equity fund, as well as limiting the liabilities that the largest banks could hold. The Agencies should implement the Volcker Rule so that it affects the two types of funds referred to explicitly by Congress—private equity funds and hedge funds—and does not sweep in other activities that do not present the type of risk Congress sought to regulate. **Congress should make clear its intent that the Volcker Rule was not intended to apply to venture capital funds and investments.**