Statement of

John R. Dearie

Executive Vice President

The Financial Services Forum

Testimony before the

Subcommittee on Contracting and Workforce

of the

Committee on Small Business

United States House of Representatives

September 11, 2014

Table of Contents

Introduction

Chairman Hanna, Ranking Member Meng, thank you very much for the invitation to participate in this important hearing.

During the Great Recession of 2008-2009 and the difficult year that followed, nearly nine million American jobs were eliminated. The damage to U.S. labor markets was the most extensive, in both absolute and percentage terms, since the Great Depression, destroying all employment base growth over the previous decade.

Just as alarming—and in stark contrast to the historical pattern of deep recessions being followed by sharp rebounds—more than five years *after* the Great Recession, annualized economic growth remains a subpar 2 percent and nearly 20 million Americans remain either out of work, underemployed, or have left the workforce discouraged. Indeed, August was the 50th month in the past 51 in which more unemployed Americans left the workforce discouraged than found jobs. According to the Brookings Institution's Hamilton Project, America will likely not return to pre-recession levels of employment until 2018.

Recent research conducted by economists analyzing Census Bureau data and, later, at the Ewing Marion Kauffman Foundation, demonstrates that virtually all net new job creation over the past three decades has come from new businesses less than one year old—true "start-ups." New businesses create an average of 3 million new jobs annually, while existing firms of any age, type, or size, in aggregate, shed a net average of about 1 million jobs each year, as some businesses fail and others incorporate technology and become more efficient. Were it not for new businesses, there would be no net new job creation in most years.

But, alarmingly, after remaining remarkably consistent for decades, the number of new businesses launched each year—and the average number of new jobs created by each new firm—have declined in recent years. In the year ending March of 2013, new businesses created 2.8 million new jobs, down 40 percent from the 4.7 million new jobs created by new businesses in 1999. In a paper published this past May by the Brooking Institution, economists Robert Litan and Ian Hathaway found that entrepreneurship in the United States—defined as firms less than one year old as a share of all firms—fell by nearly half in the 33 years between 1978 and 2011. This decline has been documented across a broad range of industry sectors, including high-tech, and in all fifty states. [1]

To investigate the likely causes of the alarming decline in American entrepreneurship, a colleague and I embarked on a remarkable road-trip over the summer of 2011, conducting roundtables with entrepreneurs in 12 cities across the United States, asking them: “What’s in your way?”

Their stunningly candid and specific answers form the basis of an altogether new, uniquely credible, and vitally important game plan for unleashing the job creating capacity of America’s powerful entrepreneurial economy and putting a beleaguered nation back to work.

Not Just Small Businesses…*New* Businesses

An often-repeated truism of the U.S. economy is that small businesses—generally defined as those with fewer than 500 employees—account for about two-thirds of job creation. This claim is easy to accept, given that businesses with fewer than 500 employees account for 99% of the nation’s businesses and employ about half of working Americans. Indeed, firms with fewer than 20 employees account for 89% of all firms and 18% of total employment.[1] The sheer number of small businesses across the nation, the significant proportion of total employment they account for, and the independence and self-sufficiency they represent help make small businesses a favorite constituency of elected officials of both parties.

But the reputation of small business as the engine of job creation is inaccurate—or, perhaps better stated, imprecise.

A breakthrough 2009 study of U.S. Census Bureau statistics—new data called Business Dynamics Statistics (BDS) that allow unprecedented analysis of the creation and development of U.S. businesses—reveals that America’s true engine of job creation is not small businesses broadly defined, but rather *new* businesses. According to the study, over the period 1980 to 2005, businesses less than five years old accounted for *all* net new job creation in the United States.[2]

Even more remarkable, subsequent analysis of the BDS data by Tim Kane, a former research scholar at the Ewing Marion Kauffman Foundation and currently chief economist at the Hudson Institute, demonstrates that in 22 of the 29 years between 1977 and 2005, all net new job creation was due to businesses less than one year old—true “start-ups.”[3] In the seven other years over the period, older firms also contributed to job creation. But start-ups contributed an average of 3 million new jobs every year. In other words, without new businesses and the jobs they create, net new job creation in all but seven years between 1977 and 2005 would have been negative.

Can this be true? Are start-ups really the source of virtually *all* job creation in America? What about every other kind of business—small and large, older and younger—don't they create jobs too?

To grasp the critical importance of start-ups to job creation, it's important to first understand how tremendously dynamic the U.S. labor market is. Most of the activity in the labor market each year reflects "churn"—the continuous process of hiring and separation that occurs as new businesses form and others close, as existing businesses create new jobs and eliminate others, and as workers leave old jobs for new opportunities. When the Labor Department reports that 200,000 jobs were created in a particular month, it's because there were 4.8 million separations—people either losing or leaving their jobs—and 5 million new hires, or some similar differential. In 2011, for example, 47.5 million separations occurred while 49.6 million Americans took new jobs, for a net gain of about 2.1 million new jobs. Assuming a 40-hour work-week, monthly hire and separation figures imply that approximately 25,000 jobs are destroyed, and slightly more are created every hour America is open for business. Indeed, about a third of the U.S. labor force turns over in a typical year.

The 2009 Census Bureau study and economist Tim Kane's subsequent work show that existing firms, of any age or size, in aggregate, nearly always produce more separations than hires. Indeed, existing businesses shed on a net basis—total separations subtracted from total new hires—a combined average of about 1 million jobs each year as some businesses fail, as others become more efficient and reduce head-count, and as separations simply outpace new hires. By stark contrast, new firms in their first year of existence create an average of 3 million new jobs every year.

But how many of those new jobs survive? New businesses are inherently risky and fragile. Roughly a third close by their second year, half within the first five years, suggesting that many of the jobs initially created are eventually lost. It's wonderful that new businesses create millions of jobs, but how many of those new jobs actually stick?

Robert Litan[4] and Michael Horrell[5], colleagues of Tim Kane at the Kauffman Foundation, answered this critical question in the summer of 2010. Using the Census Bureau's Business Dynamics Series, they constructed start-up "classes"—that is, new businesses grouped by the year of their formation. By tracking the total employment of the various classes year after year, Litan and Horrell showed that, after five years, the surviving firms of each class retain about 80% of the total initial employment created by that class.[6]

In 2000, for example, new businesses created 3,099,639 jobs. By 2005, the surviving firms of that class—while only half the number that had launched in 2000—employed 2,412,410 people, or about 78% of the jobs initially created by the year-2000 class, as job growth at surviving firms offset job losses at shrinking or failed firms. While there is a high failure rate among new businesses, those that survive tend to grow and hire at rapid rates.[7] A few surviving new firms, referred to as "gazelles" by economist David Birch, grow and hire at spectacular rates. A recent example of this pattern is Groupon, which had 37 employees in 2009 and grew to 10,000 employees by 2011—a two-year growth rate of 27,000%.

This is not to argue that existing small businesses or larger firms are unimportant. Older small businesses account for 99% of U.S. businesses and more than half of total employment. U.S. multinational companies employ tens of millions of Americans, account for outsized proportions of U.S. exports, R&D spending, and productivity growth, and provide much of the demand for the goods and services produced by smaller firms, including new firms.[8] Policies that enhance the circumstances for existing businesses also enhance prospects for economic growth and job creation.

But if the policy target is job creation, new business formation is the bull's-eye.

■ ■ ■

Start-ups are also a major source of innovation, which, as economist Robert Solow taught the world in 1957, is the principal force that drives economic progress. Solow demonstrated that most of economic growth cannot be attributed to increases in capital and labor, as most economists had previously theorized, but only to gains in productivity—gains driven by innovation.[9] As businesses and workers become more productive and efficient, costs fall, profits and incomes rise, demand expands, and economic growth and job creation accelerate. Solow won the Nobel Prize in 1987.

A recent study by the Small Business Administration found that, between 2002 and 2006, firms with fewer than 500 employees registered 15 times more patents per employee than large firms.[10] It is highly likely that, as with job creation, start-ups are responsible for most of small business innovation and registered patents. As Robert Litan and Carl Schramm point out in their 2012 book *Better Capitalism*:

> [E]ntrepreneurs throughout modern economic history, in this country and others, have been disproportionately responsible for truly radical innovations—the

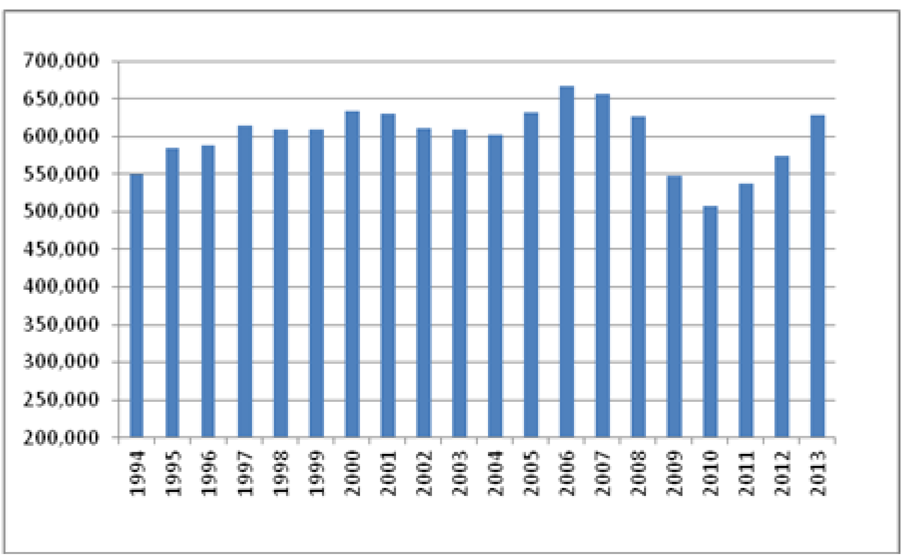
airplane, the railroad, the automobile, electric service, the telegraph and telephone, the computer, air conditioning, and so on—that not only fundamentally transformed consumers ' lives, but also became platforms for many other industries that, in combination, have fundamentally changed entire economies. . .Large companies, with their large fixed costs of plant, equipment, and to some extent personnel, have perfected the economic arts of economies of scale production and incremental innovation. But. . .most large companies are less eager to pursue radical innovations—those that disrupt current business models in which the firms are heavily invested. [11]

From the standpoint of job creation and innovation—arguably the two most critical metrics of economic progress—new businesses are the driving force.

■ ■ ■

Unfortunately, the vital signs for America's job-creating entrepreneurial economy are flashing red alert. As Figure 1.1 shows, after remaining remarkably consistent for decades,[12] the number of new businesses created annually peaked in 2006, then plunged by 25% in the year ending March of 2010 to the lowest level since the Bureau of Labor Statistics began collecting start-up data in 1994.[13] As the BLS has observed: "New establishments are not being formed at the same levels seen before the economic downturn began, and the number is much lower than it was during the 2001 recession."[14] The number of start-ups has recovered since 2010, but remains down 6% from the 2006 peak.

Figure 1.1: **Number of Business Less than One Year Old**

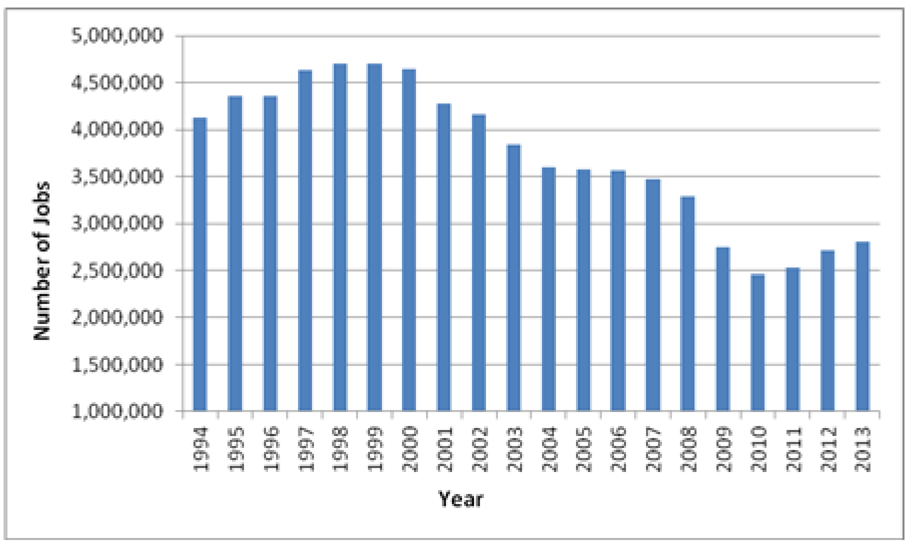


Source: Bureau of Labor Statistics.

More recently, economists Robert Litan and Ian Hathaway have found that entrepreneurship in the United States—defined as firms less than one year old as a share of all firms—fell by nearly half in the 33 years between 1978 and 2011. This decline has been documented across a broad range of industry sectors, including high-tech, and in all fifty states.[15] Litan and Hathaway have also found that this decline in entrepreneurship, or "business dynamism," has led to a significant aging of American business.[16]

Even more alarming, in a trend that began in 2000 and accelerated during the Great Recession, the new businesses that are being formed each year are creating fewer new jobs. Historically, each new firm has created an average of more than seven new jobs in its first year. In recent years, however, that average has fallen to less than five new jobs.[17] As Figure 1.2 shows, in the year ending March of 2013, start-ups created 2.8 million new jobs—down 40% from the 4.7 million new jobs created by new businesses in 1999.[18]

Figure 1.2: **Jobs Created by Businesses Less Than One Year Old**



Source: Bureau of Labor Statistics

A similar pattern has developed among existing small businesses. Firms employing 10 to 249 people hired 31 million people in 2012—nearly 8 million fewer than such businesses hired in 2006.[19] If such patterns persist, the jobs created by new and small businesses will be millions fewer than historical levels, virtually ensuring that America will face elevated unemployment for many years.[20]

America's jobs emergency, therefore, has two critical dimensions:

1. Some 24 million Americans remain unemployed, underemployed, or have left the labor force discouraged; and,

2. The nation's job creation engine—new business formation—has been breaking down in recent years.

Solving America's jobs emergency, therefore, requires dramatically enhancing the circumstances for new business formation, survival, and growth. And the first step toward improving the prospects for America's entrepreneurs is to identify and understand the issues, problems, and challenges that are currently in their way.

On the Road with America's Job Creators

New businesses are clearly the engine of job creation in the U.S., creating an average of about 3 million new jobs each year and accounting for virtually all net new job creation.

But in recent years, that job creation engine has begun to break down. The number of new businesses launched each year—and the number of new jobs created by those new firms—has suddenly and significantly declined.

But why?

If America's entrepreneurs have historically served as the engine of job creation, launching new businesses at a remarkably consistent rate for decades, regardless of broader economic circumstances, as research has demonstrated, what is suddenly in their way? What explains the drop-off in new business formation and the decline in the number of new jobs those businesses create? Unless these key questions can be answered—and unless those answers help produce compelling solutions—the U.S. economy stands little chance of creating the jobs necessary to put millions of unemployed Americans back to work.

After considering a range of procedural and analytic options, we decided that the best and most reliable way to really hear and understand the aspirations, challenges, frustrations, and offered solutions of American entrepreneurs was to get out of Washington, D.C. and talk to them face to face. Beginning in April of 2011, we hit the road—crisscrossing the country to conduct in-person roundtables with entrepreneurs in 12 cities.

In structuring our summer road trip, we selected the specific cities we visited with three objectives in mind. First, and most obviously, we wanted to cover the broad geographic territory of the country. Second, because the U.S. economy is not a monolithic whole, but rather an amalgam of many regional economies, with certain cities or regions often closely associated with certain industries, we picked our locations with an eye for covering the industrial diversity of the country. For example, the Cambridge/Boston, Massachusetts area is known for its robust biotech and life science start-up scene, whereas Herndon, Virginia is known for defense-related and government-servicing companies.

Finally, we factored into our city selections the realization that implementing whatever policy proposals our project might generate would require champions on Capitol Hill. With this understanding in mind, we reviewed the membership of the relevant Congressional committees, in both the House and the Senate, and determined which states and which cities those members, Republican and Democrat, represent. Having identified the members whose states or districts matched the cities that met our other two criteria, we visited many of those members' offices to tell them about our project, our methodology, and objectives, and to invite them or their staff, if interested, to participate as an observer at our roundtables. Many did. Our hope is that this front-loading of Congressional awareness of, and interest in, the objectives and recommendations of our project will help accelerate implementation of many of our policy proposals.

■ ■ ■

Our first roundtable took place in York, Pennsylvania on April 12, 2011. Over the course of the following summer we conducted additional roundtables in New York, New York; Columbus, Ohio; Richmond, Virginia; Herndon, Virginia; Kansas City, Missouri; Memphis, Tennessee; Austin, Texas; Los Angeles, California; Seattle, Washington; Orlando, Florida; wrapping up in Boston/Cambridge, Massachusetts on September 8.

More than 200 diverse entrepreneurs took part in our roundtables—from a web-based software company in Seattle to an industrial construction firm in Orlando, from a developer of bioscience technologies in Boston to a distributor of glow-in-the-dark fluorescent fish in Austin. We identified potential invitees in each city by reaching out to local start-up incubators, accelerators, and other facilities, entrepreneurship programs at local colleges and universities, and local Chambers of Commerce. Invitation lists were structured with an eye toward assembling a group of businesses reflective of the start-up scene in that particular city or region, but were not strictly limited to those concentrations.

Occasionally, entrepreneurship facilitators—such as managers of local start-up incubators, mentoring facilities, or leaders of research commercialization offices at local universities—also participated in the roundtables. Many of these facilitators are themselves current or former entrepreneurs, and all brought valuable experience and insights regarding local start-up activity to our roundtables.

As might be anticipated, our roundtables were lively events. Entrepreneurs are, by nature, highly motivated, high-energy people with lots of ideas, and participants were eager to share their experiences, observations, and insights. Though scheduled for 90 minutes, the discussions frequently stretched to two hours and occasionally beyond.

Our discussions were conducted as interactive conversations that began with an assessment of both local and broader economic conditions, followed by an in-depth discussion of the issues, problems, and challenges that are undermining or obstructing new business formation, growth, and job creation. Most of the entrepreneurs—unrelenting optimists by nature—remained hopeful about the long-term prospects for their companies, despite difficult circumstances. Many others were less sanguine, reporting that they had either been forced to trim payrolls to survive or had no plans to expand nor hire additional workers any time soon.

Nearly all were deeply concerned about the pace of the economic recovery, and all came to the table with a list of specific concerns, problems, and frustrations.

“Not Enough People with the Skills We Need”

The most startling message we heard from entrepreneurs at our roundtables was that the most serious obstacle to additional hiring by new businesses is a pronounced shortage of qualified talent. With 24 million Americans either unemployed or underemployed, we did not expect to hear about a labor shortage.

“We’re in the fortunate situation where we’re experiencing a lot of growth—the company’s doubled in size in six months,” said Chad Bockius, chief executive officer of Austin-based Socialware, which provides software and social media products to financial services firms. “The biggest concern I have from a hiring perspective is getting the talent in this town . . .I have the jobs, I just don’t have the talent to fill them. We’re really all fighting over the same talent.”

Clay Banks, director of Economic Development at the Chamber of Commerce in Bartlett, Tennessee, outside Memphis, agreed: “I just got off a two-week tour with 15 medical device manufacturers,” he told us. “The jobs are available, [but] the skill sets out there don't meet the needs of these companies. . .They don't have a miracle pool to pull talent from. The technology and vocational schools aren't keeping up with the changes in advanced manufacturing and struggle to keep up with companies' demand for talented workers. It's not uncommon for companies to hire 5 to 10 people in hopes of finding one qualified worker. Then they ask that employee if they know of anyone or have siblings with a similar work ethic."

"It's very hard to find technically competent talent," said Paula Soileau, co-founder of Austin-based Affintus, LLC, which developed a system of cognitive and psychological testing that helps match job candidates with open positions. "Even people with great resumes can't do the work of modern businesses. This country needs a much better pipeline of qualified, highly skilled talent."

Entrepreneurs all across the country identified the same two culprits:

1. An American education system that simply isn't producing enough graduates with the skills and training that 21st-century companies need; and,
2. A scarcity of qualified foreign talent due to irrational and self-defeating immigration policies.

"There's a supply and demand problem," said Travis McCready, former executive director of the Kendall Square Association, an organization whose mission is to promote the vitality of the entrepreneurial enclave in Cambridge, Massachusetts. "On the supply side, there is increasing concern about education and preparedness for success in the workforce of today's economy. We're also concerned about increasingly rigid visa policies. We can't get enough home-grown talent, and we can't import enough talent."

In this chapter, we explore the reported skilled talent shortage, focusing on what we heard from our roundtable participants regarding the state of higher education in America, what it means for the nation's economic competitiveness, and how an under-trained and ill-equipped workforce is undermining entrepreneurs' capacity to launch new businesses and create jobs.

■ ■ ■

The indictment of American education—at all levels, but particularly at four-year colleges and universities—was sharp and stinging, and we heard it over and over again, in every city we visited:

> ***New York, New York:*** "We don't have kids graduating with the skills to really make an impact at our companies. I'm a professor at Stern [School of Business at

NYU] and most of my students had never heard of SEM (search engine marketing) or SEO (search engine optimization)—and they're marketing majors."

Columbus, Ohio: "There are problems in the education system, both delivering it and having the right people in place to deliver it."

Richmond, Virginia: "I'm just stunned how irrelevant our business schools are."

Kansas City, Missouri: "Quite frankly, the curriculum is just not there. Graduates are not qualified to do the work that I need them to do."

Memphis, Tennessee: "What's coming out of the tech schools is completely inadequate. . .They're completely underfunded and have outdated equipment. The teachers at the tech schools are outdated and can't teach the programs and skills that companies require."

Austin, Texas: "We're so focused on four-year programs that are basically worthless. . . There is a big gap between the talent that's available and the requirements of the jobs that exist. And it's not expected to go away anytime soon. There needs to be more energy put into training people so that we can close the gap."

Herndon, Virginia: "When you go to hire, what about English? Kids can't analyze, write, communicate. We are creating a group of kids that are analytical and can focus on technology, but have no sense of the world, no sense of how to write, no sense of history."

Los Angeles, California: "The whole school system needs to change. What they're doing to our children is ridiculous. They are coming out completely incapable of running their own lives. If they could just write an invoice and print and spell, that would be very helpful."

Seattle, Washington: "We need to get back to reading, writing, and arithmetic. Why is German engineering the best in world? Because they focus on it, and with a sense of national pride. I think that needs to be instilled in our educational process."

Even students who graduate from the nation's elite universities often lack basic workplace skills, according to many of our participants. "They go to schools that we're all familiar with that are supposed to be producing great talent," said Mitch Jacobs, founder of On Deck Capital in New York City, and recipient of Ernst & Young's 2010 Entrepreneur of the Year Award. "But in terms of being useful on day one, they're just not. There's not enough focus on the fundamentals that ultimately make you useful and productive on day one."

Clay Banks from the Chamber of Commerce in Bartlett, Tennessee agreed: "Companies want real-life, hands-on experience . . . but they're saying they'll get an engineer from a great university with a great GPA, and great knowledge about how to design and create a particular part—but they don't know how to turn the machine on. They have no real-world application of how to actually get that part through the production process."

In addition to general education deficiencies, we frequently heard the more specific problem of a severe national shortage of graduates with backgrounds in science, technology, engineering, and mathematics—collectively referred to as STEM.

"How do I get more American engineers that I can hire?" asked Steve Markmann, vice president at Counterpoint Consulting, a business software firm in Vienna, Virginia. "We're looking to hire—against the tide of the economy. . .[But] we need way more American kids with degrees in computer science, math, or science."

"There's just not enough engineering talent to go around," said Siobhan Quinn, a former software engineer at Google and currently a product manager at New York-based Foursquare, an online application platform that allows users to explore and share interesting locations around town and around the world. "There are a lot of great ideas, but just not enough people to build them."

"Our STEM problem is serious," said Tim Rowe, chief executive of the Cambridge Innovation Center, which brings together entrepreneurs of all kinds and stages in a single space by offering a wide range of office space options. "What's required for entrepreneurship is money, ideas, and talent . . .and in my view, talent is clearly the toughest piece. We put a lot of energy into it—we use recruiters and we search all over the world. There isn't a day that goes by that someone doesn't say 'Can you tell me how to find someone who knows how to program in Java?' or something like that. We have kids who need jobs in this country and we're not bringing those kids into the workforce in the way we need to in order to capitalize on the money and ideas that we have."[1]

"I own a technology company in Ohio," said Nick Seguin, a partner in Ohio-based Dynamit Technologies and the former manager of entrepreneurship at the Ewing Marion Kauffman Foundation in Kansas City. "We're paying the biggest university in the country with the second-ranked math department to help us find and interview engineers and developers, and we can't find them. I don't outsource anything. I want to find people here in my country and my state, but they're just not qualified."

But Rob Lilleness, president and chief executive officer of Seattle-based Medio Systems, a mobile Internet software provider, explained that he has to outsource in order to survive. “Frankly, we can’t find enough qualified people. Currently, we have about 70 employees and 20 open spots. And it’s a dogfight to find qualified people in Seattle. . .We have to look at India, or Argentina, or Vietnam, or China for a satellite office for software development . . .We need to have more math and science talent coming out of our universities . . .or we are forced offshore to find talent.”

Kyle Johnson, founder and chief executive of Audio Anywhere, based in Lawrence, Kansas agreed: “My graphic designer is in Indonesia, my developers are in Russia. It’s less expensive, they’re smart, and they’re creative. . .I went through multiple developers in Kansas City, firing them one after the other because they couldn’t do the job. Ultimately, I found an outsourcing firm where I can say, ‘here’s what I need and when I need it.’ As an entrepreneur with limited capital, there’s only so many bullets I can fire.”

While particularly acute in the technology sector, the STEM deficiency is also a serious obstacle in other sectors, given the ever-growing importance of high technology across the 21st-century U.S. economy. “It’s really unfortunate,” said Neil Amin, chief executive of Shamin Hotels in Richmond, VA. “They may have been unemployed for a long time, but they don’t have the experience we need. We want to grow our IT department, but we’re having a hard time finding people, and we’re not even a technology company.”

“What really pains me,” said Katalin Van Over, chief executive officer of ProLogic IT, a healthcare information technology consulting firm in Los Angeles, “is that there are 12 million unemployed people in the U.S. and yet there are not enough trained healthcare information technology engineers and technicians who can help providers meet the coming regulatory deadlines. We’re going to have to borrow people from overseas.”

■ ■ ■

From our roundtables emerged a clear consensus regarding a major and worsening disconnect between the U.S. education system and the needs of 21st-century American entrepreneurs. Not enough STEM field graduates are being produced, and too often the limited number of STEM graduates lack the specific knowledge base and skill sets needed by employers. Criticism of four-year colleges and universities was particularly harsh, with many of our participating entrepreneurs openly questioning the value of four-year bachelor's degrees, regardless of the college or university.[2]

"We're not training people for the workforce," said a participant in our Kansas City roundtable. "We're putting people through a curriculum that is designed to let tenured professors live a nice lifestyle and put out research papers. But the product is not applicable to most industries now."

Recent research confirms the feedback from our roundtable participants. A 2010 study published by the Association of American Colleges and Universities found that only 25% of U.S. employers think that colleges and universities are adequately preparing graduates for the demands of the global economy.[3] A study by the Federal Reserve Bank of New York and New York University found that as much as a third of the increase in unemployment among college-educated workers between 2006 and 2010 is the result of workers not having the skills for available positions.[4] More recently, an analysis by the Pew Research Center found that less than half of those surveyed between 18 and 34 years old say they have the education and training necessary to advance in their careers.[5]

Results from the 2012 Program for International Student Assessment (PISA), an evaluation of 15-year-old students' performance in 65 nations administered by the Organization for Economic Co-operation and Development (OECD) every three years, ranked the performance of American students 21st in reading, 24th in science, and 31st in math. Secretary of Education Arne Duncan called the results a "picture of educational stagnation" that is at "odds with our aspiration to have the best-educated, most competitive work force in the world."[6]

A recent Harvard University study found that students in Portugal, Hong Kong, Germany, Poland, Liechtenstein, Slovenia, Colombia, and Lithuania are making academic gains at twice the rate as American students, while students in Latvia, Chile, and Brazil are improving three times faster. The report's authors warn: "A country ignores the quality of its schools at its economic peril."[7] Joel Klein, former New York City School Chancellor, wrote in June of 2011: "While America's students are stuck in a ditch, the rest of the world is moving ahead."[8]

In 2012, Mr. Klein, along with former Secretary of State Condoleezza Rice, co-chaired a task force, sponsored by the Council on Foreign Relations, which examined the state of U.S. education as a national security issue. The task force report concluded:

> In 2012, the sad fact is that . . .despite selective improvement, the big picture performance of America's educational system is all too similar to results from three decades ago. . .By nearly every measure, the United States is falling short of its collective expectations in K-12 public education—leaving individual Americans, communities, and the nation vulnerable. . .The United States will not be able to keep pace—much less lead—globally unless it moves to fix the problems it has allowed to fester for too long.[9]

Economists at Harvard University have estimated that if the math and science proficiency of U.S. students were raised to levels currently observed in Canada and South Korea, U.S. economic output could be expanded by "nothing less than $75 trillion" over the next 80 years—roughly $1 trillion annually.[10]

■ ■ ■

Of course, difficulty finding qualified workers is not limited to new businesses. A 2013 survey by ManpowerGroup, a leading human resources consulting firm, found that 39% of U.S. employers reported having difficulty filling "mission-critical positions," up from 14% in 2010.[11] Another survey, by Deloitte and The Manufacturing Institute, reported that 67% of U.S. manufacturers are experiencing moderate to severe shortages of qualified workers, leaving as many as 600,000 open skilled positions unfilled.[12]

In late 2011, with the unemployment rate at 9.1%, Siemens, the German industrial conglomerate, had 3,000 open positions in the U.S. that the company couldn't fill. Applicants are tested in reading comprehension, math, and mechanical aptitude. Only 10% are deemed to have sufficient skills to be trained for jobs. As Peter Solmssen, Siemens' general counsel, told CNBC: "You can't just come in and swing a hammer. You have to be able to operate sophisticated machinery. You've got to have an understanding of what's going on in the manufacturing process…As a country, we haven't paid enough respect to great manufacturing jobs. We haven't given people the training they need to be able to operate in a modern, competitive manufacturing environment. If you go to our factories in Germany, the guys on the floor can read engineering drawings. They're highly respected. They're well paid."[13]

As Solmssen points out, driving the skilled talent shortage is the extent to which automation and computerized instrumentation are transforming the U.S. economy—a trend accelerated by the recent recession. Over the two years following the end of the recent recession, spending by U.S. companies on computers, automation, and other high technology equipment surged. Such investments—encouraged by historically low costs of capital and temporary tax breaks—enabled companies struggling to maintain profitability to enhance productivity while putting off more expensive hiring. But they have also dramatically raised the required level of technical competency, even for manufacturing jobs that may have only required a high school degree as recently as a decade ago.[14]

While the skilled talent shortage is certainly not unique to start-ups, our entrepreneurs explained how the shortage hits new businesses especially hard. For example, in the initial months and years of a new business, skilled talent is the essential ingredient necessary to turn ideas into products and to identify and effectively exploit markets for those new products. Talent and brain power are start-ups' most valuable assets. Without access to high-skilled employees, even great ideas can, and often do, fail as viable businesses.

Moreover, the shoestring circumstances of most start-ups during the initial years typically can't accommodate the training programs necessary to turn high-potential employees into high-value employees. "My company is small—we're 35 people," said Brenda Hall, chief executive officer of Austin-based Bridge 360. "We do custom application software development—the hard stuff on people's IT list that never gets done. [But] I'm worried. I'm doing double-digit growth, but how do I find good people? *Good* people. Training is an issue for me because people come in with great resumes, but they just can't do the job. I haven't got the kind of company that gives them time to 'ramp up.' So we've got to hit the ground running with good people and get the job done. And that's a tough one."

And as the scarcity of skilled talent has driven up the price with regard to salaries and benefits, many cash-challenged start-ups simply can't compete.[15]

"I'll give you an example," said Rob Lilleness of Seattle-based Medio Systems. "We had someone who was four or five years out of the University of Washington, total comp somewhere around $125,000. Google hired him away for $225,000."

Siobhan Quinn, the former Google software engineer, now at New York-based Foursquare, identified a different sort of talent-related problem faced by many new companies at critical stages of expansion. "At the beginning, there's always some founder, some young visionary. But as [a new business] starts to scale, you may need more experienced specialists. But it's hard because many people aren't comfortable giving up a $200,000-plus salary and lifestyle for less compensation—even if the alternative comes with stock options and has much greater growth potential. They just can't take the risk."

“Our Immigration Policies Are Insane”

As frustrating as the skilled talent shortage is for our participating entrepreneurs, it is not an exaggeration to report that our nation’s immigration policies enrage them. The problem is not merely that the U.S. does not effectively recruit and welcome the world’s best talent. Rather, our roundtable participants insist, current immigration policies in many ways actually obstruct and even actively deter high-skill immigration.

“The real problem is immigration because even if we fix the education system, it’s going to take years before you see results,” a participant at our Herndon, Virginia roundtable told us. “In the venture capital industry over the past 20 years, 40% of the people who’ve been funded as CEOs [of new companies] were foreign-born. And that’s way more than what immigrants represent in the population by a long shot.”

“I’ve got two co-founders who are not American, along with up to 75% of our scientific hires and applicant pool, so visa problems and delays are a major issue for us,” said John Sheffield, co-founder of Seven Bridges Genomics, a Boston-based pioneer in the field of bioinformatics, which *Forbes* magazine has estimated could develop into a $100 billion industry.[1] “One of my co-founders graduated a few years ahead of me from Harvard and was in the PhD program. He was the number one student in his country’s national exams before he came to Harvard. So he’s exactly the kind of guy that you would want in the U.S. innovating. He’s published work that made him one of a handful of people in the world who can find a particular class of genetic variation that’s involved in a wide range of cancers and genetic disorders. . .And the struggles that we’ve encountered to keep him working in the U.S. and appropriately compensated are just ridiculous. And this is occurring in what we call a ‘generative industry,’ where the technologies that we’re creating will be used in any number of industries down stream.”

Such circumstances are highly problematic for several reasons. First, and most tragically, America proudly defines itself as the world’s great melting pot of immigrant cultures and talents, a nation whose most recognizable monument is the iconic Statue of Liberty, the Roman goddess of freedom, who lifts her torch to illuminate the “golden door” of opportunity.[2]

Second, at a time when official efforts to accelerate economic growth and job creation have focused on fiscal and monetary stimulus—even as the nation struggles to come to terms with staggering levels of government indebtedness—there is ample evidence that targeted, common sense immigration reforms would significantly accelerate job creation without spending a dime of taxpayers’ money.

Most worrisome, our entrepreneurs argue, in an increasingly competitive global economy in which highly skilled talent and brainpower are the resources most sought after, U.S. immigration policies are irrational and self-defeating—exacerbating the serious shortage of skilled American talent that entrepreneurs insist is undermining the formation and growth of new businesses, and, as a result, economic growth and job creation.

■ ■ ■

Our participants identified barriers in virtually every aspect of U.S. immigration policy. Among the most frustrating are requirements regarding foreign-born graduates of U.S. colleges and universities. The U.S. remains the top magnet for the world's best and brightest students. More than 760,000 foreign nationals—a record high and the world's largest international student population—enrolled in American colleges and universities last year under the terms of an F-1, or student, visa, an increase of more than 30% over the past 10 years.[3] Foreign students contribute more than $20 billion annually to the U.S. economy by way of tuition expenditures and living expenses.[4] Most significantly, foreign students account for almost half of all the graduate students in engineering, mathematics, computer science, and the physical sciences—earning more than 40% of all master's degrees in those fields and more than half of all PhDs.[5]

Given the obvious economic value of newly minted, American-trained graduates—particularly in the critical STEM fields—one might expect that U.S. policy would allow or even encourage foreign-born graduates to stay in the U.S. After spending four years—or, in the case of graduate students, as many as seven or eight years—educating, training, and cultivating the world's best minds, why would any nation want that intellectual capital to leave?

Unfortunately, in most cases that's precisely what happens. Current policy requires foreign students to return home within 60 days of completing their studies. Under the terms of the F-1 visa, foreign graduates may remain in the U.S. if they land a job or internship—but only for 12 to 29 months, depending on their field of expertise.[6]

"It's amazing how many international students are in the IT and engineering programs at Kansas and Kansas State," Keith Molzer, chief executive of Balance Innovation in Lenexa, Kansas told us. "I think it's over 50%. And they are the best and the brightest. But they don't stay here. They graduate and go back to their home countries. We need to find a way to keep those students here to help grow our entrepreneurial talent pool."

"Let's at least let people who come here for higher education stay," said Dr. Kenneth Blaisdell, associate dean at Virginia Commonwealth University and executive director of VCU's School of Business Foundation. "It's just phenomenally stupid in the extreme that we put students through master's and PhD programs and then we say you have to leave! We bring people in for humanitarian reasons, and that's fine. But, man, our immigration policies are messed up. . .We have foreign grad students at our school who are spectacular. One is cooling her heels in Bucharest right now because her visa required that she leave and reapply. We had one in Islamabad last year, and while she was waiting for a month for a meeting with visa officials at our embassy, extremists blew up a girls' school a block away and actually knocked her to the ground. And this is the best graduate student at VCU! It's absolutely nuts!"

■ ■ ■

There are two other principal pathways by which highly skilled foreign nationals can live and work in the U.S.—H-1B visas and "green cards." Both entail cumbersome qualifying requirements and strict limitations.[7]

The H-1B visa program allows high-skill immigrants with theoretical or technical expertise in specialized fields such as science, engineering, or computer programming to work in the U.S. for an initial period of three years. Visas can be extended for an additional three years, but not beyond a total of six years. To qualify, foreign applicants must hold a bachelor's degree from an accredited college or university in the U.S., or the equivalent; the prospective U.S.-based employer must sponsor the applicant; and the duties of the prospective job must correspond to the applicant's education and work experience.[8] About 1 million foreigners worked in the U.S. on H-1B visas in 2012.[9]

The employer-sponsorship requirement of the H-1B visas is cumbersome for all applicants, but particularly problematic for entrepreneurs. First, companies seeking H-1B visas for their employees must be able to demonstrate control over the worker's employment, including the ability to terminate the employee. This requirement is difficult if not impossible for entrepreneurs to demonstrate compliance. It also means that H-1B visitors may not change employers without returning home and reapplying. In addition, sponsoring employers are legally required to pay the filing and processing fees associated with H-1B applications and, though not required, also typically pay legal fees associated with application preparation and petition filings. Such costs can become substantial—often amounting to thousands of dollars—deterring many employers from sponsoring foreign applicants. Start-up businesses, which tend to be small with limited resources, are impacted disproportionately.

"It's very hard to find American citizens with technology degrees," a participant in our Herndon, Virginia roundtable told us. "We're forced to hire people though H-1B arrangements. . . [But] as a small business, we can't even get one approved. It took us two years to get the last one done. It would be far cheaper to pay a regular salary, but we just can't find enough folks who either have a green card or are a U.S. resident with a technology degree."

Most problematic, the number of H-1B visas is currently capped at just 65,000, with an additional 20,000 set aside for foreign nationals holding a post-graduate degree from a U.S. college or university. Applications frequently exceed the annual cap within weeks or even days of the new allotment being issued.[10] In 2013, visa applications exceeded supply within five days.[11] Two-thirds of H-1B applications annually are for workers in STEM occupations.[12]

A more permanent pathway of entry is the Lawful Permanent Resident Card, or "green card," so-called because of the card's green color between 1946 and 1964, and again since May of 2010. Green cards permit foreign nationals to live and work in the U.S. indefinitely, subject to compliance with various requirements.[13]

Foreign applicants can acquire permanent residency status in four main categories. The easiest and quickest is to be an immediate relative (i.e., spouse, child, or parent) of someone already a lawful permanent resident or U.S. citizen. One roundtable participant told us a story that would be hilarious were it not so pathetically illustrative of the kind of desperation felt by many foreign-born entrepreneurs who want to build their businesses in America: "I've got two good friends that have an early stage start-up. They actually have investment and they've grown from just the two of them to seven people. They're best friends and former college roommates. But one of them is international. They're two straight guys who are now looking into getting married, just to keep the foreign guy in the country."

Other pathways to permanent residency include winners of a so-called "diversity" lottery, political refugees and asylees, and employment sponsorship.

As with H-1B visas, the application process for an employment-based green card is complicated, cumbersome, expensive, and, depending on the classification of the applicant, can take years. For most employment categories, the sponsoring employer must file documents with the Department of Labor certifying that no qualified American workers are available or willing to do the job that the applicant will perform. To document such circumstances, sponsoring employers must provide proof of advertising for the specific position, skill requirements, verification of the prevailing wage, as well as proof of the employer's capacity to pay that wage.

And, as with temporary H-1B visas, green card applicants must remain with their sponsoring employer until they receive their card and for a period of time thereafter, typically at least a year or two. Altogether, depending on the national origin and classification of the applicant, the required attachment to the sponsoring employer can last years.[14] During that time, careers can stagnate. The spouses of applicants are often prohibited from working, and, in some states, cannot obtain a driver's license. Unsure if they will eventually receive their card or be deported, applicants are reluctant to put down roots, buy a house, or start a business.[15]

"A fellow graduate is trying to get a green card and is working for a large organization who is the sponsor of her application," a participant at our Cambridge, Massachusetts roundtable told us. "So, in effect, she's being held hostage. She has to stay there for however many years it takes to get that green card, because if she quits her job, she'd have to start the process all over again. It's indentured servitude. This person is a brilliant IT talent, and she's stuck counting her days where she is."

Most problematic, employment-based green cards are currently capped at just 145,000 annually.[16] Moreover, the quota for each foreign country—regardless of population size—is the same, limited to 7% of the total allotment. High-skilled applicants from large countries like China or India, therefore, can face delays of a decade or longer. Of the 1 million permanent admissions of immigrants into the U.S. annually, less than 15% are allotted, based on the economic skills of the applicants. Other countries—including Canada, South Korea, Switzerland, and Spain—issue as much as 80% of their visas for economic reasons.[17]

■ ■ ■

Current immigration policy makes little sense from a number of standpoints. On September 13, 2012, the presidents of more than 150 American universities wrote to President Barack Obama and Congressional leaders, calling current immigration policies "a critical threat to America's preeminence as a global center of innovation and prosperity," and urging bipartisan reform:

> After we have trained these future job creators, our antiquated immigration laws turn them away to work for our competitors in other countries. . . And while we turn away these American-educated, trained, and funded scientists and engineers,

> there is a growing skills gap across America's industries. One quarter of U.S. science and engineering firms already report difficulty hiring, and the problem will only worsen: the U.S. is projected to face a shortfall of 230,000 qualified advance-degree workers in scientific and technical fields by 2018.[18]

A participant in our Austin, Texas roundtable pointed out that current policy also squanders taxpayer money. "We're putting a lot of money into research at our universities. Most of the money comes out of DARPA[19]—that's where most of our technology has come from for the last 50 years. But . . . a lot of the folks who are creating the technology are then going back to China, or India, or Thailand, or wherever they come from, and are creating technology for those countries. Keep our research dollars here. Keep the *people* here. Give them citizenship if you need to, but don't let non-American citizens run with this research and technology."

Rob Lilleness, president and chief executive officer of software developer Medio Systems in Seattle, Washington, explained how immigration restrictions often force new companies to outsource jobs the firms would rather create at home. "If there's one thing I think is important, it's that we need to open up work visas to get more people to drive our ability to grow, because we compete on a global level. . .We're growing rapidly, our revenues tripled last year, we're profitable. But to keep that growth up, we need to hire talent. . . We have to look at India, or Argentina, or Vietnam, or China because there's not enough H-1B visas so that we can have a bigger supply pool. . .we need to have more math and science talent. . .or we're forced to offshore to find the talent."

Worst of all, by maintaining a skilled talent admission process so narrow, cumbersome, lengthy, uncertain, and expensive, the U.S. runs an ever-mounting risk that the world's best and brightest will abandon America, choosing instead to apply their talents and ideas, start their businesses, create wealth and jobs, and pay taxes in their home countries or some other host nation more welcoming of the contributions of foreigners.

And, unfortunately, there is already evidence that foreign students and entrepreneurs are, in fact, looking elsewhere. A 2009 survey of more than 1,200 foreign students attending U.S. colleges and universities conducted by researchers at the Ewing Marion Kauffman Foundation found that only 6% of Indian students, 10% of Chinese students, and 15% of European students hoped to stay in the U.S. permanently. The vast majority—85% of Indian and Chinese students, and 72% of European students—cited concerns regarding their ability to obtain work visas. Importantly, more than 70% of all foreign students polled indicated that they planned to start a new business within the next decade.[20]

"Talk to anyone in the start-up community, and they all say we've started to run out of talent," Vivek Wadhwa, director of research at Duke University's Center for Entrepreneurship and Research Commercialization, told CNBC in October of 2012. Wadhwa, himself an immigrant from India, is the author of *The Immigrant Exodus*. "What you're seeing is less innovation than you might have otherwise seen. Economic growth is being given away. . .Move forward five years and we'll see what we did wrong. We'll start seeing Google-like ideas in other countries."[21]

"Had I known when I came here what I'd have to do to start my business here, I don't know that I would do it again," said Bettina Hein, founder of Pixability, a web-based YouTube marketing software company in Cambridge, Massachusetts. A German national and repeat entrepreneur, Hein started her first company—SVOX, which developed text-to-speech software for car and mobile device applications—in Switzerland. She sold the company in 2011 for $125 million.[22] "It creates so much uncertainty," she continued. "I'm here on an H-1B. It was extremely hard and painful to do. And extremely expensive—it cost me $5,000. We looked through the different options, but I would have had to invest $500,000 of my own capital if I had gone with one of the E-visas. . .Right now, my visa is running out and they might not renew it. What would I do with the company? I have enough investors now that I could have them all call their Congressman, I guess. But why do people have to resort to such desperate measures just to stay here? Why do I need to start my company and create jobs here? The thing is, I really don't."

Tim Rowe, founder of the Cambridge Innovation Center, captured the essence of the issue. "It seems to me that our immigration policy is built around the notion that we have to protect American jobs," he said. "But we've got it backwards. We're *threatening* the creation of new jobs by preventing these incredibly talented entrepreneurs from overseas from coming here and building their businesses here. We're in a global economy. From one recent study on Silicon Valley, we learned that fully half of all start-ups have a foreign-born person as a founder—the data is there. Let's get this right."

Recent research confirms Rowe's assertion. Numerous studies show that immigrants are more entrepreneurial than native-born Americans.[23] For example, though representing just 13% of the U.S. population, immigrants account for nearly 20% of small businesses in America and nearly a third of the increase in the number of small businesses between 1990 and 2010. Immigrant women are twice as likely as U.S.-born women to own a business. Immigrant-owned small businesses employed nearly 5 million Americans in 2010 and generated an estimated $776 billion in revenue.[24]

The Partnership for a New American Economy, a bipartisan group of more than 500 business leaders and mayors united in support of immigration reform, has found that more than 40% of Fortune 500 companies—including 7 of the 10 most valuable brands in the world—were founded by immigrants or a child of immigrants. These companies employ more than 10 million people worldwide and generate annual revenue of $4.2 trillion.[25]

Most importantly, immigrants launch half of the nation's top start-ups. A study by the National Foundation for American Policy found that of the top 50 venture capital-backed companies in the U.S. last year, 23 have at least one foreign-born founder, while 37 have at least one immigrant in a major management position.[26] *The Washington Post* recently observed, "In the decade ending in 2005, the founders of half of the firms in Silicon Valley were born overseas."[27]

Immigrants are also more innovative than native-born Americans. A recent study showed that immigrants were involved in more than 75% of the nearly 1,500 patents awarded at the nation's top 10 research universities in 2011—and that nearly all the patents were in the fields of science, technology, engineering, and mathematics. In particular, foreign-born innovators contributed to 87% of the patents in semiconductor device manufacturing, 84% of the patents in information technology, 83% of the patents in pulse or digital communications, and 79% of the patents in pharmaceutical drugs or drug compounds.[28]

The net result of immigrants' propensity for innovation and entrepreneurship is more American jobs. According to the American Enterprise Institute, immigrants—whether permanent or temporary, high-skill or less-skill—boost employment among Americans. This effect is most pronounced for immigrants with advanced degrees from U.S. universities working in STEM fields. According to the study, over the period 2000 to 2007, each additional group of 100 foreign-born workers with STEM backgrounds was associated with 262 additional American jobs.[29]

"What people don't understand is the leverage effect," said Bettina Hein of Cambridge-based Pixability. "All the other jobs in the companies we start are held by American citizens. If we weren't here, our American colleagues wouldn't have these jobs."

In a speech before the U.S. Chamber of Commerce in September of 2011, former New York City Mayor Michael Bloomberg called current U.S. immigration policies "national suicide":

> We've become the laughingstock of the world with this policy. In China, the government offers tax breaks, cheap loans, and start-up capital to Chinese citizens who are educated overseas and then return to start a business. . .In Israel, the government is spending hundreds of millions of dollars on a program to attract thousands of Israeli ex-pats, particularly scientists, researchers, and doctors, by offering them tax breaks, health insurance, and free tuition for further education.
>
> In Chile, a pilot program for the founders of new technology companies offers start-up capital, free office space, reduced red tape, and access to mentors. And many of our English-speaking competitors—from Canada and the U.K. to Australia and New Zealand—have visa programs designed to attract entrepreneurs to create jobs. All these countries know . . . that there's no chance they'll stay competitive unless they can attract top talent from around the world—and that certainly goes for the U.S.[30]

■ ■ ■

We recently learned of a new start-up that is itself a remarkable testament to human creative genius—and to the abject stupidity of America's current immigration policies. You've heard of start-ups being launched in garages or in dorm rooms? How about on a ship?

Blueseed Company, based in Sunnyvale, California is a start-up with a unique solution to a big problem. Max Marty, the company's co-founder and chief executive officer, and the son of Cuban immigrants, plans to anchor a decommissioned cruise ship off the coast of California near Silicon Valley to house up to 1,000 foreign-born entrepreneurs who want to start their companies in the United States but haven't been able to obtain visas. Marty told the *Associated Press* that he thought of the idea after hearing international classmates at the University of Miami business school complain about having to leave the country after graduation.[31] The floating office park will anchor in international waters 12 nautical miles southwest of San Francisco Bay—just a ferry ride away from Silicon Valley.

"We're enabling people from all around the world to connect into Silicon Valley," Marty told *Marketplace*, which airs on National Public Radio.[32] "People live and work out there on their start-up for about six to nine months. When they are in the right position and those companies gain a little bit of traction, they look at moving into Silicon Valley itself."

The ship will be equipped with all the high-tech amenities that modern entrepreneurs require and will have the open, employee-friendly feel similar to the corporate campuses of companies like Google and Facebook. According to Blueseed's business plan, the company will make money by charging tenants monthly rent and by taking a small equity stake in the companies it accepts aboard. If all goes according to plan, Blueseed will set sail in the second quarter of 2014.

"The real value for us—and really, the real value for the world—is the value that those companies are going to produce as they grow, as they produce new technologies, and as they create jobs," Marty said.

"Not All Good Ideas Get Funded Anymore"

Starting a new business requires money. In the initial days of a start-up, capital needs may be limited to the bare essentials—money to purchase supplies, computers, and other office equipment. Falling costs for computers, software, and other office technologies in recent years, together with the establishment, distributional, and promotional powers of the Internet, have dramatically lowered the cost of getting a new business off the ground. Starting a new business from scratch tends to cost, on average, about $30,000. [1]

But that's just the beginning. As new businesses begin to grow, capital needs multiply. Entrepreneurs need money to pay bills, to move out of the garage or dining room into office space, and, hopefully, to begin paying initial employees. Most importantly, entrepreneurs need capital to further develop their product or service idea, research the marketplace, and develop and implement a strategy for identifying and targeting customers.

Because such costs typically arrive long before the first dollar of revenue, capital and credit are the lifeblood of any new business. Difficulties in accessing sufficient capital and credit at reasonable terms can delay or prevent the launch of a new business, disrupt the further growth and development of an existing business, or even kill an otherwise healthy and viable business.

While securing financing has always been a major challenge for entrepreneurs, our roundtables made clear that circumstances have become significantly more difficult in the wake of the 2008 financial crisis and may account, at least in part, for the declining rate of new business formation. Access to capital difficulties were mentioned by our roundtable participants as much as any other challenge they confront. "There's a theory that all good ideas eventually get funded," said Joni Cobb, president and chief executive officer of Midwest–based Pipeline, an entrepreneurship fellowship organization for high growth entrepreneurs. "Well, they don't all get funded anymore."

In this chapter, we examine the various sources of start-up capital, advantages and disadvantages of each, and how and why the recent financial crisis has made securing entrepreneurial capital much more difficult.

■ ■ ■

Entrepreneurs have traditionally pursued a variety of financing alternatives, including personal savings, family and friends, home equity, credit cards, bank loans, venture capital, and angel investors:

> Personal savings and assets: One's own resources are the easiest and fastest to access. No forms to fill out, no applications to submit, no interest rate to pay or equity stake to give away. Recent business survey data indicates that more than 70% of new businesses are launched using the entrepreneur's personal savings or assets. [2] Steve Jobs financed the 1976 launch of Apple in his parents' garage by selling his Volkswagen van.[3]
>
> Family and friends: Other than the entrepreneur herself, the people who know her best—her background, skills, and character—are the most likely to be willing to risk some of their own money to help her pursue her idea.
>
> Home equity: For many entrepreneurs, like many Americans, their home is their largest asset, and HELOCs can be easier to get than business loans and typically entail lower interest rates. Sam Walton launched Wal-Mart in 1962 with a loan backed in part by his home.
>
> Personal credit cards: More than half of all new businesses rely on some form of debt financing, and the vast majority of those rely to some degree on credit cards.[4] As a form of revolving credit, cards are similar to a line of credit, yet don't require collateral, a business plan, or months waiting for approval. Larry Page and Sergey Brin launched Google in 1997 with $15,000 generated by maxing out their credit cards.
>
> Banks: Banks can, and occasionally do, serve start-ups, but obtaining initial financing from banks can be difficult for entrepreneurs, and for good reason. New businesses are very risky—a third fail within their initial two years, half within five years—and typically lack the assets, collateral, cash flow, and track record that banks look for in order to secure credit.

Venture capital: Venture capital firms pool money from outside investors (wealthy individuals and institutional investors) and provide larger dollar—generally more than $1 million—early-stage funding for new and rapidly growing companies in exchange for an equity stake in the young company.

Angel investors: Wealthy individuals—many of them successful entrepreneurs themselves—are an increasingly important source of early-stage "seed" funding for entrepreneurs. Known as "angel investors," such individuals invest relatively small amounts, typically between $25,000 and $500,000, in exchange for an equity stake in the new business.[5] Jeff Bezos launched Amazon.com in 1995 with $1 million provided by 20 angels who invested $50,000 each.

The range of start-up financing alternatives is itself a testament to the creativity and resourcefulness of American entrepreneurs.

■ ■ ■

Securing financing has always been a critical challenge for entrepreneurs. But our roundtables made clear that, in the wake of the 2008 financial crisis, access to capital has become a major obstacle to success. For example, the personal savings of many would-be entrepreneurs have been diminished or even depleted due to financial losses, the loss of a job, or stagnant salaries. Family and friends have experienced similar financial setbacks, leaving them with fewer resources to share with entrepreneurs. According to an analysis by the Federal Reserve, the 2008 financial crisis and the economic downturn that followed slashed the median net worth of American households by 40%, wiping out nearly two decades of household wealth accumulation.[6]

Meanwhile, millions of Americans, including many would-be entrepreneurs, have had their credit cards cancelled or credit limits cut as many issuers have reduced exposures, limiting or eliminating a traditional source of start-up capital.[7]

Following the collapse of the U.S. housing market, many Americans have far less equity in their homes—if any. According to the Federal Reserve, the 30 to 40% drop in home prices nationwide between 2006 and 2011 destroyed more than $7 trillion in home equity wealth. Moody's Analytics has estimated that home equity borrowing by small business owners fell from about $75 billion in 2006 to just $20 billion in 2012.[8]

"We started from a home equity line, and that HELOC now sits like this dark entity in our lives," Kim Wills, chief financial officer of Richmond-based Milestone Counseling Services, told us. "If we had found sufficient funding somewhere else . . . that would have helped us along. It's a challenge for someone just trying to keep her doors open."

■ ■ ■

Many roundtable participants across the country also expressed frustration with banks, both large and small. Complaints generally fell into two principal categories, the most common and fundamental of which is that many banks simply won't lend to new businesses.

"The banks wouldn't talk to me because I'm a start-up," said Sharon Delay, founder and president of Adjunct Solutions in Westerville, Ohio, a niche staffing agency that places adjunct faculty in schools, colleges, and universities. "They wouldn't even look beyond the first couple of pages. I'm a start-up—I'm risky. There's absolutely nothing to benchmark it to, so I'm an unknown. It's too scary."

As mentioned above, start-ups typically lack the assets, collateral, and track record that banks look for in order to secure credit, and the reliable cash flow to service the loan. And following severe losses sustained during the recent financial crisis, and confronted with the risks associated with a still-fragile economy and much higher capital requirements, many banks have tightened lending standards and raised terms, making bank credit even more difficult for entrepreneurs to obtain.

The mission of the Small Business Administration (SBA) is to help small businesses obtain bank credit by guaranteeing a portion of loans. But many of our roundtable participants reported that SBA paperwork, requirements, and restrictions simply don't work for entrepreneurs.

Nancy Simmons, president of AERO Industries in Orlando, Florida, told us: "I launched my business with an SBA-backed loan and it tied my hands so much that I paid it off in two years. I couldn't move my business forward. They told me, 'we own all your accounts receivables.' I tried to work within their regulatory requirements, and it was unsuccessful. I pulled all the cash out of my business and paid off the loan, just to get them off my back and out of my way."

Brad Silver, CEO of Quire, a Memphis, Tennessee–based healthcare analytics company, explained how the SBA's focus on asset-based collateral simply doesn't work for most information technology companies. "SBA is so tied up in asset-based lending and loan guarantees backed by inventory or real estate. I'm not really an asset-based, inventory-based business, right? Maybe I could get an SBA loan or guarantee to build a building or put in some factory equipment. But getting some working capital or a line of credit to chase the market? Not there."

■ ■ ■

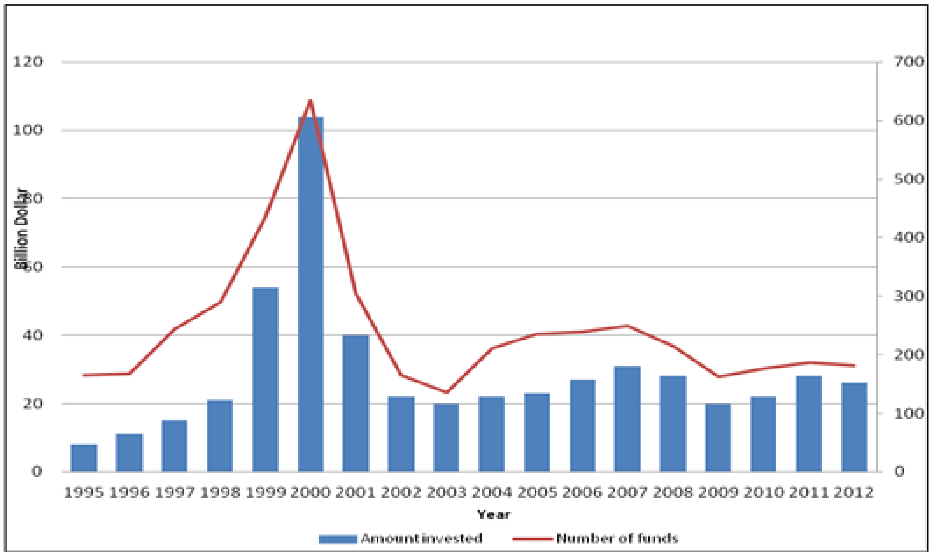
Venture capital firms are long-term investors that provide early-stage funding to new and rapidly growing companies in exchange for an equity stake in the company. Venture firms raise investment capital from outside investors—wealthy individuals, pension funds, insurance companies, university endowments, and foundations—referred to as "limited partners," while the fund professionals who make and manage the investments are called "general partners." Venture firms also assist in the management and professionalization of the young companies in which they invest, typically taking seats on the board. Investment capital is recovered and returns realized when the new firms either go public—that is, issue shares in the company by way of an initial public offering (IPO)—or is bought by another company, transactions referred to as "exits" or "liquidity events."

Virtually synonymous with American entrepreneurship for decades, venture capital has helped finance thousands of successful companies, including such marquee names as Intel, Federal Express, Apple, Microsoft, Google, Cisco, Home Depot, and Starbucks.[9] While this track record speaks for itself, it also tends to overstate the importance of venture capital. Of the hundreds of thousands of new businesses launched annually, less than 1% ever receives venture financing. A recent analysis of Inc. magazine's annual list of the 500 fastest growing companies over 10 years—900 companies over the period 1997 to 2007—found that just 16% had received venture funding.[10] Still, being a principal source of financing for nearly a fifth of America's fastest growing companies makes venture capital a vital resource to new business formation and job creation.

Venture investing is also risky business. According to the National Venture Capital Association (NVCA), 40% of venture-backed companies fail, another 40% generate only moderate returns, and less than 20% produce high returns. Shikhar Ghosh, a successful technology entrepreneur and senior lecturer at Harvard Business School, has shown that as much as 95% of venture-backed start-ups fail to deliver expected returns.[11]

Even before the 2008 financial crisis, venture capital had suffered a stunning reversal of fortune. After riding the Internet bubble to all-time highs in terms of the number of active funds, total amounts of capital raised and invested, and multi-year returns, the dot-com bust devastated the industry. As Figure 5.1 shows, between 2000 and 2002, the number of active funds dropped by half, while the amount of new money raised, and the amount of money invested, plunged by 95% and 80%, respectively.[12]

Figure 5.1: **Number Venture Funds and Capital Invested**



Source: National Venture Capital Association

Another significant challenge emerged in 2002 with the passage of the Sarbanes-Oxley Act (SOX) following a series of financial reporting scandals involving companies such as Enron, Tyco, and WorldCom. Among other new requirements intended to enhance the quality and reliability of reported financial data, section 404 of SOX requires publicly traded companies to disclose the findings of an external audit of the scope, adequacy, and effectiveness of the company's internal control structure and procedures for financial reporting. Though just 170 words in length, section 404 has accounted for the majority of the cost of complying with SOX, estimated to be well over $1 million per company annually.[13]

The substantial cost and burden of complying with SOX has amounted to a major obstacle for many new and rapidly growing companies hoping to access the capital markets to secure the substantial financing they need to continue growing and creating jobs. In a recent interview, Steve Case, co-founder and former chief executive of America Online, said: "When AOL went public 20 years ago, we only raised $10 million. Nobody could do that now because of the cost of Sarbanes-Oxley."[14]

"As a technology entrepreneur when I started my career, I had the aspiration of going public," said Bettina Hein of Cambridge, Massachusetts–based Pixability. "Sometimes I think about that. I have friends who have, and mentors who have. But it's so onerous now I don't know if I want that. It's what I aspired to as an entrepreneur—you know, ringing the opening bell at the stock exchange—but it's kind of been taken away.

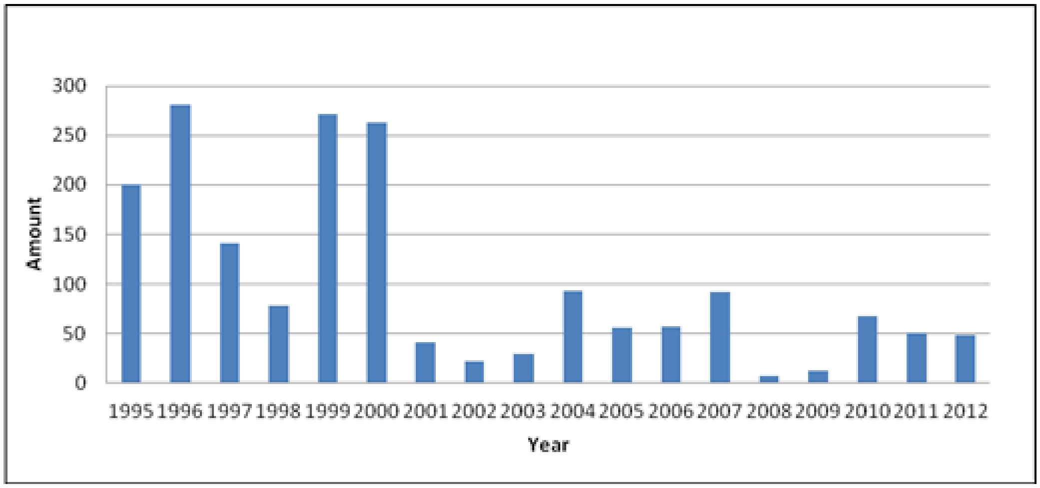
The reality is that when I hear how onerous Sarbanes-Oxley is, I'm thinking that's not something I want to do right now."

According to several of our entrepreneurs, other factors relating to stock market structure and regulation—changes intended to protect investors and reduce costs—have also complicated the prospects for venture capital. Perhaps most significantly, following the decimalization of stock prices in 2001, tick sizes—the minimum increment by which a stock's price can change when shares are bought or sold—have been slashed.[15] Inadequate tick sizes, according to many industry analysts, produce trading revenue for investment banks that is insufficient to support the research and sales force needed to promote small capitalization stocks, and to attract the liquidity necessary to support the shares of small companies once they go public.[16]

"Trading in small cap stocks has been decimated," Steve O'Leary told us. O'Leary is co-founder and managing director of Aeris Partners, a Cambridge, Massachusetts-headquartered M&A advisory firm serving high-growth software, digital, media, and business information companies. "It's just not profitable anymore. And the result is a huge change in the number of small companies going public since the mid-1990s. Think about Intel, which went public in 1971 with about a $50 million market valuation. Like Intel, many of the pre-decimalization IPOs, even in the 1990s, had $100 million market caps or less. Could a $30, $40, or $50 million company go public today? That would be a rare event. Restoring the spreads on trading is a key element in making the small cap IPO market profitable. Decent spreads enable smaller underwriting firms to do smaller deals. It keeps them issuing research, supporting trading activity, and finding growth investors after new companies go public."

The combined effect of the dot-com bust, SOX, and the market structure issues discussed above is dramatically fewer IPOs, as young companies either choose to remain private or wait much longer before going public. As Figure 5.2 shows, initial public offerings by venture-backed companies plunged from a high of 270 in 1999 to just 23 in 2003.

Figure 5.2: **Annual IPOs**



Source: National Venture Capital Association

The number of IPOs recovered somewhat between 2004 and 2007, averaging about 60 each year. But plunging stock prices during the 2008 financial crisis slashed IPOs to single digits in 2008 and 2009. In the second quarter of 2008—for the first time in 30 years—not a single venture-backed company went public. Only six companies went public the entire year.

Because venture funds get their investment capital back and realize returns only when financed companies go public or are bought by other firms, the collapse in the number of IPOs made venture investments less liquid, and reasonable returns far less certain. A 2009 poll of more than 100 venture capital executives found that a majority, 53%, agreed that the industry is "broken." Asked which industry trends they were most worried about, 93% of respondents indicated uncertainty regarding exit markets.[17] As one prominent VC explained to the New York Times: "There is no venture industry if there is no IPO market."[18]

By 2010, the amount of venture capital invested in new companies had fallen nearly 80% from the peak in 2000, and the 10-year average return for venture funds had fallen to negative 4.6%—the first negative 10-year return in industry history.[19]

While certainly bad for venture capitalists and their investors, such circumstances are even more worrisome for the companies who depend on them. When capital is tied up in existing investments for longer periods, and producing lower or even no returns, the recycling of that capital into newer companies is delayed or even eliminated, sending ripple effects through the entrepreneurial ecosystem. And without the reasonable prospect of going public, new businesses, often unable to offer competitive initial salaries, can't use stock options to attract talented employees.

Most importantly, fewer IPOs mean fewer jobs. From the standpoint of job creation, IPOs are far more important than the sale of new companies to larger companies. When purchased by existing companies, new firms are absorbed into the culture and operation of the purchasing firms, and typically don't grow or create jobs at rates that independent companies do. In fact, mergers often result in job cuts. Many buyouts of new firms are done for defensive reasons, to head off or even shut down a competitive threat.

"A structurally compromised IPO market leaves a lot of shareholder return, economic growth, and job formation on the table," David Weild, former vice chairman of NASDAQ, wrote in 2008. "Big corporations are eating our young as they starve for capital before they have the opportunity to reach adulthood. Their true potential will never be known."[20]

By contrast, following the issuance of shares to the public, young companies are flush with cash to buy equipment, research potential markets, and develop and launch new products—all of which requires additional staff. Over the past four decades, more than 90% of the jobs created by rapidly growing new companies were created after the companies went public.[21] According to research by audit and tax consulting firm Grant Thornton, the decline in IPOs since the late 1990s has cost the U.S. economy between 10 and 20 million new jobs.[22]

Conditions for venture capital have improved since 2009, with 68 venture-backed companies going public in 2010, 51 in 2011, and 49 in 2012, and 82 in 2013—the best pace since 2007. Still, annual IPOs remain only a fraction of those in previous years, even before the dramatic increase in the mid- to late-1990s. Between 1990 and 1994, an average of 160 companies went public annually, twice the 2013 rate.

According to most industry insiders and observers, venture capital continues to work through a period of consolidation and reorientation that, in the end, will leave far fewer, better firms raising and investing less money, and focused on fewer, later-stage deals.[23] At least one prominent VC, Matt McCall of New World Ventures, has argued that for venture capital to produce returns sufficient to compensate investors for risk and years of illiquidity, no more than $10 billion to $15 billion should be invested annually.[24]

The industry has a long way to go. Venture funds invested $29.4 billion in 2013, and over the past 15 years of poor performance have continued to invest between $25 billion and $30 billion annually—about what was invested in total between 1985 and 1995.

"The venture capital asset class does not scale," prominent New York-based venture capitalist Fred Wilson wrote in a 2009 blog post. "You cannot invest $25 billion per year and generate the kinds of returns investors seek from the asset class. . .I think 'back to the future' is the answer. . .Less capital in the asset class, smaller fund sizes, smaller partnerships, smaller deals, and smaller exits. The math works as long as you don't put too many zeros on the end of the numbers you are working with."[25]

"One of the big issues we see now is that new companies get started—and that's hard enough—but then getting to the next level is really tough because the banks aren't lending to start-ups and venture capital is often not available," Ken Woody told us at our Memphis, Tennessee roundtable. Woody is president of Innova Memphis, Inc., a seed and early-stage venture firm focused on high-growth companies in bioscience, technology, and healthcare technology. "It's just a simple fact," he said. "It's a very big issue and it needs fixing."

■ ■ ■

With the personal resources of many would-be entrepreneurs depleted, home equity slashed, banks focused on lending to more established businesses, and a diminished venture capital industry increasingly targeting less risky, later-stage start-ups, "angel" investors—wealthy individuals who invest in young promising companies—have emerged as a critical source of funding for start-ups.[26] According to the Center for Venture Research (CVR), which has monitored and analyzed the angel market since 1980, there are currently more than 300,000 active angel investors in the United States.

In recent years, angel investing has become more organized, with more angels participating in groups. Such groups allow angels to conduct more rigorous analysis of potential ventures, and, occasionally, to spread risk by syndicating investments.[27] They also help entrepreneurs identify and connect with active angel investors. According to the Angel Capital Association, angel groups across the country have tripled since 1999 to more than 350.

In a number of ways, angel investors are similar to venture capitalists. Like VCs, angels invest in new, high potential companies in exchange for an equity stake in the new business. Many angel investors—particularly those who are current or former entrepreneurs—also provide advice, mentoring, and other support to the management team of the new businesses they invest in. As with venture capital, angel capital is recovered and returns realized when financed firms either go public or are bought by another company. And, like venture investing, angel investing is risky. According to a 2007 analysis of angel capital returns, more than half of angel investments lose money and just 7% account for 75% of total returns.[28]

Angel investors also differ from venture capitalists in significant ways. For example, unlike VCs, who invest institutionally-raised capital in amounts of $1 million or more, angels invest their own money, typically in amounts between $25,000 and $500,000. Despite smaller individual investments, aggregate angel capital rivals that of venture capital. In 2011, angels invested $23 billion in more than 66,000 new companies, while venture firms invested $28 billion in 3,800 companies. For every new company that receives venture capital, nearly 20 others receive angel capital.

Perhaps most importantly, whereas venture capital is typically invested during a later growth phase after initial financing has helped create a viable company, angel investors have emerged as the principal source of outside "seed" and early-stage funding, after entrepreneurs have exhausted their own resources and those of family and friends.[29] Of the approximately 45,000 new companies that received outside seed-stage funding in 2012, 97% were funded by angel investors, who provided 80% of the total seed capital committed by outside investors.[30]

In this way, angel investors and venture capital funds complement each other in the financing pipeline for new companies. Angel investors provide critical seed financing for new companies, while venture funds—at least ideally—provide follow-on financing that fuels the company's further development and accelerates its growth. Unfortunately, as venture capital funds have become more risk averse, focusing on more developed companies, the financing necessary to bridge young companies from the start-up stage to the early expansion stage is increasingly difficult to get. A recent study of more than 4,000 companies that secured seed investments since 2009 found that more than a quarter have or will fail to secure follow-on financing from venture funds, generating losses for angel investors of $1 billion.[31]

Despite the growing importance and rigor of angel investing, capital provided by angel investors also fell dramatically in the wake of the financial crisis, as wealthy individuals, like everyone else, sustained significant financial losses.[32] According to CVR, capital committed by angel investors fell 32%, from $26 billion to $17.6 billion, between

2007 and 2009. Over the same period, the average investment also fell by a third, as investors' risk appetite diminished. CVR data also revealed that as angels reduced their overall commitments following financial crisis losses, they also shifted their reduced investing away from seed-stage funding to less risky, later-stage companies.

"The recent turmoil in financial markets has scared off a lot of angel investors and reduced the number of exits—either IPOs or buyouts in recent years—which makes the circumstances for financing new start-ups even more difficult," Hall Martin, director of the Austin Entrepreneur Network, told us.

Karen Wilson, vice president for business development at the Intego Group in Lake Mary, Florida explained at our Orlando roundtable just how stark the change had been. "I was recently with a start-up company and we were looking for capital. . .I had another company 10 years ago and raised $5 million by myself in a year and a half. I was not a professional fundraiser, but it wasn't very hard, really. My first investment was $300,000. I made a pitch to a group of angel investors and got the money. Today, those same angel groups have dried up. Winter Park, which is a wealthy area here in town, had a large angel group of about 45 members, and they've disbanded. And the last two years that they were technically operating, they made no investments. They'd hear pitches, but then say, 'Thanks a lot, goodbye.' I've heard the same thing has happened in Naples. . . I looked very aggressively for our company—and I'm pretty good at looking—but it's just not in central Florida anymore."

Brad Silver of Memphis, Tennessee–based Quire agreed. "The universal theme is an overall reduction in the appetite for risk. Whether it's a bank, a venture capital firm, or an angel investor . . . the reduced appetite for risk is pervasive. The psychology is 'we got clobbered,' so it takes a while to get over that. And one of the most acute areas you see that is the angels. A lot of high-net-worth people, who had a lot of risk capital in play, all of a sudden are worried about lifestyle issues. How do I keep that condo in Vail or the house at the beach? So they're cutting back on everything that doesn't support those kinds of things. And that pulls a ton of risk capital out of the pipeline. I've heard it from a lot of other entrepreneurs who are trying to raise capital."

The angel investor market has recovered significantly since 2009, with total capital invested, the average size of commitments, and the number of active investors all increasing. Still, total investments by angels in 2013 remained down 5% from pre-recession highs, with the size of the average investment down 23%.[33] Angel investors have also become more cautious, according to our participating entrepreneurs, demanding more information, more research, and more advanced prototypes before investing.[34]

"Over-Regulation Is Killing Us"

Regulation is essential to market economies. It establishes the rules of competition, ensures a level playing field, governs participants' behavior, and protects consumers, public health and safety, private property, and environmental resources. In this important sense, economic growth and wealth creation depend on the promulgation and enforcement of regulation.

Indeed, two of our roundtable participants cited regulatory enforcement deficiencies as one of their principal challenges. The first, the owner of an environmental engineering and construction firm in Harrisburg, Pennsylvania, told us that spotty local enforcement of immigration and labor regulations, and unscrupulous competitors who take advantage of such breakdowns, frequently rob him of business.

Catherine Figueroa, owner of Redi Pedi Cab Company, a rickshaw enterprise catering to Orlando's tourists and conventioneers, told us that frequent violations by her competitors of tax, insurance, and safety regulations damages the reputation and prospects of her operation, despite her strict compliance. "We offer short-haul transportation and outdoor advertising opportunities on our rickshaws. . . I'm all for government regulation. In my view, if there isn't regulation, then there's going to be abusers. We have insurance. We do our business tax receipts. We do everything we need to do to make sure we're operating safe and at the professional level we're trying to portray. But there are others who don't buy insurance and don't do their tax receipts. So they don't have the same expenses we do, and we're competing with them."

Without question, sound and consistently enforced regulation is an essential aspect of any fair, efficient, and effective marketplace.

But regulation isn't free, or without consequence. Regulation imposes costs—costs borne by businesses. A wave of new regulations, inconsistent or outdated regulations, or complex and confusing regulations can distract business owners' focus and time away from their product line and the marketplace, and impose costs that consume resources that could otherwise be invested back into businesses. Regulation can create economic distortions, entrenched interests, and powerful constituencies, and can lead to cronyism and dependency. Regulation can also entail unintended consequences, as incentives created or destroyed by new rules can lead to unforeseen outcomes that negate or even more than offset the intended benefit.

If overdone or unwisely implemented, therefore, regulation can cease to be a facilitator of economic activity and, instead, become an obstacle, stifling innovation and investment and undermining economic growth and job creation—"hardening the arteries" of the nation's economy.

Michael Mandel, chief economic strategist at the Progressive Policy Institute, has pointed out that the sheer accumulation of regulations over time can begin to suppress innovation and growth—even if every individual regulation, considered in isolation, is determined to be sound and reasonable.

> The problem is that it's possible for every individual regulation to pass a cost-benefit test, while the total accumulation of regulation creates a heavy burden...The number of regulations matter, even if individually all are worthwhile. I call this the "pebble in the stream" effect. Throw one pebble in the stream, nothing happens. Throw two pebbles in the stream, nothing happens. Throw one hundred pebbles in the stream, and you have dammed up the stream. Which pebble did the damage? It's not any single pebble, it's the accumulation.[1]

The stifling effect of regulatory burden, complexity, and uncertainty is particularly acute for new businesses. New firms lack the resources and scale of larger firms over which to absorb and amortize the costs of compliance. Moreover, their very survival, especially during the initial years, depends on the energy, focus, and flexibility of their leaders.

"Entrepreneurs succeed or fail based on our momentum, our speed to the market," explained Alan Blake, founder and chief executive officer of Yorktown Technologies, L.P., an Austin, Texas-based biotechnology company. Blake has also served as president of the Austin chapter of the Entrepreneurs Organization, a global network of more than 8,700 successful entrepreneurs. "It's hard to do anything those first few years except try to keep revenues ahead of expenses. It's a constant battle. We're trying to blaze new trails and there's a constant underbrush of regulations. They can be federal, state, or local—and sometimes they conflict. Sometimes they're just dead-stop barriers. You walk up and there's a canyon, and you just have to turn around. In other cases, it just slows you down. A lot of those struggles involve employment-related regulations, which can be very challenging. Exempt versus nonexempt. Contractor versus employee. Fair Credit Reporting Act. Worker's Compensation. Payroll taxes and 1099s. Then there's the new healthcare law, and nobody understands yet how that's going to affect business.

Identifying, understanding, and complying with all of these regulations results in a huge loss of productivity. And the important thing is that entrepreneurs—particularly in the early years when they're at that 'succeed-or-fail' point—don't have the resources to hire an HR person or in-house counsel or a chief financial officer. They're trying to do all of it themselves."

"It's as if the politicians and regulators in Washington want me to fail—and spend all their time thinking up new ways to ensure that I do," said Sharon Delay, founder and president of Adjunct Solutions in Westerville, Ohio, a niche staffing agency that places adjunct faculty in schools, colleges, and universities. "What it amounts to is we can't build our businesses because we're fighting. We're fighting regulations. . .We're fighting the government. We're like boxers who don't stand a chance of winning. . .Quit throwing ridiculous roadblocks in front of me! You either want me to be the engine of the economy or you don't."

Sitting across the table from Sharon, Mark Luden, chief executive of the Guitammer Company and a former chairman of the Small Business Council, agreed: "Some of these regulations coming out—you'd almost think that my teenage son was reading it out of *The Onion* and it wasn't real. You read some of these and go, they can't be serious! You're basically putting a tax on small businesses."

That regulation came up at our roundtables as a challenge and source of frustration did not surprise us. The degree of exasperation and even anger expressed by so many of our participants did surprise us. According to our roundtable participants, the U.S. economy is currently mired in a period of over-regulation that, more than ever, is threatening their businesses and obstructing their ability to grow and create jobs.

■ ■ ■

Some participants spoke of the sheer burden of regulatory compliance and uncertainty. "You just never know what's coming down the pike," said David Wysocki, founding principal at Hoefer Wysocki Architects in Kansas City. "My attorney called just this morning and said, 'There's this new regulation that you're probably unaware of but you need to comply with it. It's about registering new employees with the state.' I never knew I had to register new hires with the state. Well, now I do and there are fines if I don't do it. How do you even keep up with all this?"

"Whenever we go to hire someone, there's dealing with the state fund or worker's comp, or teeny changes in other regulations," said Kate Pletcher, principal at Mom Corps, a Los Angeles-based professional staffing and recruiting firm focusing on flexible work schedules. “In California they’re now requiring our employees to mark their time down by the minute, and soon they’re going to start making sure that they clock out on breaks. Or documenting someone who’s working from home. Keeping up to date with all the regulations, for both California and federally, it’s really half our job. And it’s a total headache.”

Other participants pointed out the complexity and redundancy of many regulations. “It’s not just federal government,” said Chuck Kirkpatrick of Orlando-based ThePeoplesVote.com, a nonpartisan, online platform that allows visitors to cast votes on the issues of the day. “You’ve got to think about the different layers of regulation…We’ve got federal regulations, state regulations, county regulations, city regulations. We have to deal with every level.”

Kenneth Blaisdell, Associate Dean of the School of Business at Virginia Commonwealth University in Richmond, agreed: “There is a bewildering alphabet soup of agencies that overlap like a Venn diagram. I can’t imagine any business navigating that easily.”

“I can tell you that the federal, state, county and local regulations that we have to adhere to in our work, which is civil/site design of land development projects, are constantly changing, making it harder and harder for us to get projects approved in a reasonable time frame,” said J. Michael Brill, P.E., P.L.S., owner of J. Michael Brill & Associates, Inc., a civil engineering firm in Mechanicsburg, Pennsylvania. “The entitlement process has made it hard for any small developer to stay in the game, as the design, application, and permitting costs just to meet the regulations in order to obtain approvals from the various government agencies are outrageous. The vast majority of our projects entail the use of various professionals, including various disciplines of engineers, attorneys, architects, and landscape architects—and that’s just to obtain the various government approvals. Obviously, the design items then translate to construction costs. It’s a very expensive endeavour.”

Others highlighted the burden of antiquated regulatory requirements. “We see on a daily basis the number of outdated and outmoded rules that are really crushing innovation for small government contractors trying to bring technology to the government market,” said Brett Coffee, general counsel at Springfield, Virginia-based Computer Systems Center Inc. Coffee is also a former chairman of the Fairfax County Small Business

Commission. “[The government’s] technology is 10 years old to begin with. Just being able to work on innovative projects, there are so many hurdles.”

Kim Wills, chief financial officer of Milestone Counseling Services in Richmond, Virginia, agreed. “We have the ability to capture data electronically, but the regulators say there has to be a binder somewhere that they can check to make sure that something has been done.”

Patrick Flynn, president and chief executive officer of Flynn Construction, Inc. in Austin, Texas, explained how heavy regulation or new rules imposed on one industry can ripple across the economy. “I don’t think it’s isolated. I was with a CEO of a credit union two weeks ago. He’d been building new locations, and I said to him, ‘How are you doing? Are you still expanding?’ He said, ‘Absolutely not. We shut all that down.’ I asked him why, and he said, ‘The new regulations that are coming out of Washington for smaller banks. We’re going to stay status quo.’ He was going to build a lot of branches in town over the next several years, but now he says, ‘We’re just going to stay with what we have.’ So there’s a trickle down, because you’re crushing the market …Either the subcontractor, the builder, is going to get hurt, or some other guy is going to go down and take a bunch of people with him. And the only people who are making money out of it are the bankruptcy attorneys. Meanwhile, people are running as hard as they can on a treadmill to keep people employed.”

The Boston/Cambridge area—with MIT, Harvard, and several other research universities nearby—is a leader in the formation of new biotech and life science products and businesses.[2] But David Verrill, founder of Hub Angels, a Boston-based angel investor group, explained how Food and Drug Administration regulations can be an obstacle to such promising ventures securing capital from non-bank sources: “We’ve been around 11 years, made 26 investments, about a third of which were in life sciences—but not lately. The FDA approval process is very problematic, both in time and cost. So we tend to stay away from those companies that, because of regulation, have a longer time horizon and larger capital costs than we can support.”

Other participants at our Cambridge roundtable explained that the FDA’s lengthy and uncertain approval process often leads pharmaceutical and other life science companies to pursue the testing, licensing, and marketing of new drugs in Europe and other more accommodating jurisdictions rather than here in the U.S.. According to a 2011 survey by the National Venture Capital Association, 85% of venture-backed healthcare companies expect to seek regulatory approval of their new products outside the United States.[3]

■ ■ ■

Regulatory statistics confirm that the message from our roundtables is more than mere griping—that, in fact, regulation of the U.S. economy has dramatically increased in scale and scope in recent decades, and particularly in recent years. For example, the number of pages in the *Federal Register*—the government publication in which new regulations must be posted and explained and which, therefore, serves as a proxy for regulatory activity—has expanded more than six-fold since 1950. In the 1950s, regulatory agencies published an average of about 11,000 pages per year in the *Federal Register*. By stark contrast, federal agencies published an average of more than 73,000 pages per year from 2001 to 2009.[4] Published pages expanded by 19% in 2010 alone.

Between 2009 and 2011, 106 new major regulations were issued, with "major" defined as having an expected economic impact of at least $100 million per year, at a cost of more than $46 billion annually and one-time implementation costs of $11 billion—four times the number of major regulations issued in the preceding four years, at five times the cost to the economy, amounting to the most intensive period of new regulation in U.S. history.[5]

The Federal Code of Regulations hit an all-time high of 174,545 pages in 2012, up more than 20% over the past decade and up 145% since 1975. Federal regulatory agencies issued 1,172 final rules in 2012, up 16% from 1,010 new rules in 2011, which was a 40% increase over the 722 issued in 2010. Federal agencies also proposed 2,517 new rules in 2012, the highest number since 2003. These increases came on top of a pipeline of more than 4,000 regulations at various stages of implementation—854 of which will have a significant impact on small businesses, as determined by the relevant regulating agency.[6]

Not surprisingly, the bureaucracy required to administer the expanding array of regulations has also grown. The combined budgets of federal regulatory agencies have grown to $60 billion, up 26% since 2008 and up 50% over the past decade. Between 2000 and 2010, staffing levels at federal regulatory agencies jumped 54%—the largest increase in five decades.[7] Indeed, according to *Investor's Business Daily*, if the federal government's regulatory operations were a business, it would be one of the 50 largest corporations in the country in terms of revenue and the third largest in terms of employees, with more staff than McDonald's, Ford, Disney, and Boeing combined.[8]

In Washington, Republicans and Democrats alike have acknowledged the problem. For example, during remarks before the Economic Club of Washington on September 15, 2011, John Boehner (R-OH), Speaker of the House of Representatives, stated:

> We all know some regulations are needed. We have a responsibility under the Constitution to regulate interstate commerce. There are reasonable regulations. . . and then there are excessive regulations that unnecessarily increase costs for consumers and small businesses. . .The current regulatory burden coming out of Washington far exceeds the federal government's constitutional mandate. And it's hurting job creation in our country at a time when we can't afford it.

In January of 2011, President Obama announced an executive order launching a government-wide review of "rules already on the books to remove outdated regulations that stifle job creation and make our economy less competitive."[9] Eight months later, on August 22, 2011, the Administration released the final plans of 26 regulatory agencies to implement more than 500 reforms the Administration said would save $10 billion over the next five years.[10]

Regulatory streamlining that saves American businesses $10 billion over five years is a step in the right direction—but only a very small step. According to the Small Business Administration (SBA), the cost of complying with federal regulations exceeded $1.75 *trillion* annually, nearly 12% of GDP and more than $10,500 per American worker, as of 2008—*before* the historic expansion of regulation over the past four years! Even more alarming from the standpoint of new businesses and job creation, the SBA has also found that regulatory compliance costs small businesses 36% more per employee than larger firms.[11]

"Look, I believe in regulation," said Chuck Kirkpatrick of Orlando-based ThePeoplesVote.com. "I've actually lobbied for regulation. But it has to be responsible and the government has to be accountable, but it's not. In many ways, America is no longer a business-friendly country. We like to say we are, but we're not."

"Reduce the number of regulations, especially around employment," said Alan Blake of Yorktown Technologies in Austin, Texas. "Ironically, while they were designed with good intentions—to protect employees and prospective employees—the result is that companies have a very difficult time navigating them. Small businesses, in particular, struggle with the complexity and risk associated with employment-related regulations.

The result is that many companies are much more reluctant to hire than they would be otherwise. Simplifying the regulations in favor of making it easier and less risky to hire would be a huge help."[12]

"Tax Payments Can Be the Difference Between Survival and Failure"

It's difficult to embark on a project of this kind completely free of expectations regarding what you're likely to hear. As we set out to ask entrepreneurs across the nation about the issues and challenges that complicate their efforts, one of our expectations was that taxes might come up as a source of frustration. After all, any business owner would naturally prefer to keep as large a portion of the business' earnings as possible—to reinvest into the business or to simply enjoy more of the fruits of one's labor.

And, indeed, as we expected, the subject of taxes came up frequently—but not in the way we expected. In fact, all over the country we heard entrepreneurs make comments such as: "I understand that we all have to pay taxes," and "I'm fine paying taxes," and even, "I didn't get into business to avoid paying taxes." And yet our roundtables made clear that taxes are a source of frustration and even anxiety for many of our participants.

For a while, we were puzzled by this nuanced, even seemingly contradictory feedback regarding taxes. But as we continued to listen, we began to understand.

"We literally spend thousands of dollars a month on accountants," said Mark Casey, president and chief executive officer of CFN Services, a telecommunications networking company based in Herndon, Virginia. "Sometimes the issue is getting bills for taxes that we're not even aware that we owe. How do you find out about these things? I've raised my hand and said 'I'm doing business in your state—have someone call me.' We're not trying to be noncompliant. But we need a little help to make sure that we're not missing something. Large businesses have huge accounting departments to take care of this, but for smaller firms it's a real burden."

"Here's the problem with taxes," said Bob Burns, president of RL Burns, Inc., a construction management company in Orlando, Florida. "We do the work and then we wait to get paid. So cash flow is extremely important. It's where we're most vulnerable. When you have a good year, you get hit hard with taxes. When you have a bad year that extra cash you paid in taxes would really be great to have. And so taxes make things difficult, especially given how volatile things have been."

Our roundtables revealed that entrepreneurs often think about taxes the way they think about two other critical challenges—the burden and distraction of regulation, and access to capital. Tax complexity and uncertainty—like regulatory complexity and uncertainty—divert the time, attention, and energy of entrepreneurs away from the essential tasks required to successfully launch and grow their businesses. Even more important, tax payments drain new businesses of critical cash flow and operating capital.

Taxes are a business reality, and our roundtable participants are “fine” with paying them. But tax complexity and uncertainty, together with the loss of precious capital, can amount to mortal threats to new businesses, particularly in the critical early years.

“Cash flow is the lifeblood of start-ups,” Reggie Chandra, president and chief executive officer of Rhythm Engineering in Lenexa, Kansas, told us. “People around the table have talked about the importance of access to capital in the context of outside investors. But it’s also about keeping the capital you generate internally through sales. Young businesses barely scrape by in the beginning and then the government takes a third of their profit in taxes—money that could have been invested in the business. That money can be the difference between survival and failure.”

Chad Grummer agreed. “Our biggest challenge that we run into is tax issues.” Grummer is president of Grummer Wholesale, Inc., a family-owned and operated wholesale distribution company based in Heath, Ohio, that supplies convenience stores in Ohio, Kentucky, and West Virginia. “We’re in a high sales dollar, low net profit kind of business. So when they come and take the money from your net sales, it kills you.”

“My big frustration, and what I see as the big issue affecting not only women-owned businesses but small businesses, in general, is that business only works when you can project,” said Laura Yamanaka, president and founder of Los Angeles-based teamCFO, and chairwoman of the National Association of Women Business Owners. “These days, it feels more like Vegas—so much unpredictability . . . the tax rules have to change so we have more predictability. So that it’s attractive to invest and so that the economy is working.”

■ ■ ■

Research supports the feedback from our participating entrepreneurs. For example, higher tax rates have been shown to reduce investment spending by entrepreneurs and to deter their hiring of additional workers.[1] And, indeed, a survey of more than 900 chief executives of small businesses conducted by the *Wall Street Journal* in December of 2012 found that, due to anticipated tax increases associated with the fiscal cliff negotiations, 32% of respondents indicated they planned to reduce investment spending, while another 30% planned to hire fewer workers.[2]

During the 2012 tax policy debate leading up to the year-end expiration of tax cuts passed during the Bush Administration, an analysis by Ernst & Young found that raising top individual tax rates would be associated with a loss of approximately 710,000 jobs because more than 2 million U.S. businesses organized as S corporations,[3] partnerships, limited liability companies, and sole proprietorships would be affected.[4] Such businesses are referred to as "pass-through" businesses because their profits are passed through to owners and investors who pay taxes on those distributions by way of their individual returns.[5] Nearly 95% of U.S. businesses,[6] 85% of small businesses,[7] and virtually all new businesses are organized as pass-throughs.

Such firms employ more than half of the private sector workforce.[8] A recent analysis of the Federal Reserve's Survey of Small Business Finances by George Haynes of Montana State University reveals that small-business owning families who earn more than $250,000 per year employ 93% of the people employed by small businesses.[9] Because the vast majority of new and small businesses are organized as pass-throughs, raising taxes on wealthy individuals raises taxes on millions of start-ups and other small businesses, leaving them with less money to reinvest, expand, and create jobs.[10]

The American Taxpayer Relief Act of 2012, signed into law by President Obama on January 3, 2013 following month-long negotiations between the Administration and Congress to avoid the so-called "fiscal cliff"[11] raised tax rates on personal income above $400,000 for individuals and $450,000 for couples from 35% to 39.6%. As a result, businesses organized as pass-throughs that earn income above those levels now pay a tax rate 4.6 to 10 percentage points higher than businesses organized as corporations.[12] According to Doug Elmendorf, Director of the Congressional Budget Office, the higher rates mean 750,000 fewer new jobs in 2013.[13]

In Chapter 6, we explained that the stifling effect of regulatory burden, complexity, and uncertainty is particularly acute for new businesses. New firms lack the resources and scale of larger firms over which to absorb and amortize the costs of compliance. Moreover, their very survival, especially during the initial years, depends on the energy, focus, and flexibility of their leaders. According to the Small Business Administration, the cost of regulatory compliance for small businesses is 36% higher per employee than for larger firms.[14]

For similar reasons, new businesses are much more vulnerable to the impact of tax complexity and uncertainty than larger businesses. According to the National Federation of Independent Business (NFIB), tax compliance costs are 67% higher for small businesses than for larger businesses, costing small businesses nearly 2 billion hours and more than $18 billion each year. Nearly nine out of 10 small businesses are forced to rely on outside tax professionals to ensure compliance. A recent NFIB survey of 12,500 of its member businesses found that 85% want Congress to “fundamentally revise” the tax code in 2013, with 78% supporting a simpler tax code with fewer exemptions and preferences.[15]

“Take some of the tax burden off!” an exasperated Brent Frei of Smartsheet in Seattle, Washington told us. “When this state was talking about slapping a 10% tax on the ‘wealthy,’ what that really means is small businesses. If that had passed, I would have moved our business out of the state, because it would have paid to do so—and might have made the difference.”

Frei went on to explain another way that taxes can undermine new businesses, or even discourage them from ever launching. “I’ve started three companies and I know a lot of successful entrepreneurs, a ton of them. They succeeded by clawing and scratching at the dirt. A lot of hours and a lot of personal risk. They look for a longer-term payout after a lot of short-term pain. That’s the culture. And it’s fundamental. I didn’t go without a wage for the entire founding phase of my businesses and put all my personal capital into them in hopes of an eventual payout only to have that hurdle raised unexpectedly down the road. I mean, that’s crazy. Make the incentives better for people and they’ll go out and take the risk.”

An additional issue we heard is that the tax code is often irrational— punishing, or not sufficiently rewarding, business activity that should be encouraged, and encouraging activity that should be minimized. For example, the research and development tax credit was created by way of the Economic Recovery and Tax Act of 1981 and is intended to incentivize technological progress and innovation by allowing businesses to deduct a portion of the cost of research and product development from their taxable earnings. Unfortunately, the original credit was temporary and, while Congress has renewed the credit 14 times, it has never made it permanent, creating year-to-year uncertainty for firms that need to plan their R&D spending coherently over time.[16] Moreover, even when renewed, the formula for calculating the credit has changed many times.

“We took a third of our profits last year and invested in R&D,” said Brent Gendleman, president and chief executive officer of 5AM Solutions, a life science and health care software engineering company in Reston, Virginia. “This is how the tax credit worked: take 50% of the money that we invested, then take 20% of that 50%. That’s the tax credit we got. Just 10% of what you invest. And only off the top line of your tax burden, so the actual value is minimal. Maybe a laptop. For a state to claim that’s an incentive to entrepreneurship is nonsense.”

Rob Lilleness, president and chief executive officer of Seattle-based Medio Systems explained how the tax code virtually requires him to invest offshore: “The U.S. rewards companies for having people and assets offshore. In a prior company we opened in Singapore—zero taxes. We opened in Hong Kong—12% taxes. Before long, the majority of our revenues were outside the U.S., even though I might not want it that way or even believe in it. We serve our shareholders and they want the best return on their capital. We off-shored, that lowered our tax base and boosted our earnings per share. And now that the money is banked off shore, it makes more sense to buy companies and talent overseas because you can’t repatriate that capital or you’ll face a 35% hit.”

But the most common complaint we heard from entrepreneurs regarding taxes is that they are too complex and constantly changing, requiring far too much time, energy, and other resources, and making it virtually impossible for young businesses to effectively plan. This feedback from our participants is consistent with the results of the 2012 Small Business Taxation Survey released by the National Small Business Association. Asked what tax-related issue is the most significant challenge to their business, 56% of respondents said the administrative burden of the tax code. Eighty-five percent said the tax code is so complex they have to hire an external tax practitioner or accountant to handle their taxes.

Another survey conducted in January of 2013 asked senior executives at 600 start-up companies across the nation: “What piece of advice would you give to President Obama with regard to supporting the innovation economy?” The top response, offered by nearly a third of survey respondents, was to simplify the tax system. Attracting and retaining the world’s best talent was the second most common response.[17]

“Just give me a number!” said an exasperated Rhonda Pressgrove, founder and chief executive officer of Help Me Rhonda Cleaning Services in Southaven, Mississippi, and a participant at our Memphis, Tennessee roundtable.

“And don’t change it!” echoed Rick Leung, vice president of development and chief technology officer at Austin, Texas–based Vyopta, Inc., a developer of applications for business video. “If we have a number we can count on, we can build a business around that. What we can't manage is the goal posts constantly moving. We don't have the time or the money to keep up with changes year after year that force us to rethink our business model and what our tax liability is going to be."

"We just want [the government] to make taxes easy to handle," said Mary McCarthy, co-founder and president of Your Management Team, a Westerville, Ohio–based management consulting firm serving entrepreneurs and small business owners. "And the employment laws and healthcare laws too. The things that impact us. Make them as simple as possible so that we can just focus on our business."

A number of our participants went so far as to say that they would pay higher tax rates—despite the impact on their businesses—in exchange for certainty.

"There's Too Much Uncertainty—and It's Washington's Fault"

Our moderator began each roundtable by inviting participants to comment on local economic conditions and recent circumstances for their business. We began our discussions this way both as an easy icebreaker—folks were eager to introduce and talk about their businesses—and because, as mentioned in Chapter 2, we understand that the U.S. economy is not a monolithic whole, but rather an amalgam of many regional and local economies, with certain cities or regions often closely associated with particular industries. For example, Seattle is known for web-based technology and clean energy companies, while Memphis is known for health care, bioscience, and medical device companies.[1] Starting our discussions by focusing on local conditions helped us get a good read on the area and set the context for what we would hear over the next couple of hours.

While some participants reported steady or even growing business, particularly in the technology space, most reported that conditions—both for the local economy and their business—remained very challenging. As one participant succinctly put it: "There's just no demand out there."

That message is, of course, consistent with broader economic indicators. Though the recent recession officially ended in June of 2009, the subsequent recovery has been remarkably weak and fragile, with the economy expanding at an average annual rate of just 2%. An analysis by the *Associated Press* showed that of the 10 post-recession recoveries of three years or more since World War II, the current recovery is the weakest "by just about any measure."[2] As Neal Soss, chief economist at Credit Suisse, commented to the *New York Times*: "This is the weakest recovery we've ever seen, weaker even than the recovery during the Great Depression. . .If you're not scared by that, you're not paying attention."[3]

As much as any other factor discussed at our roundtables, the return to anemic growth so soon after the worst economic downturn since the Great Depression jarred and frightened many of our participating entrepreneurs, causing them to second-guess, postpone, or even cancel plans to expand and hire.

"There are a lot of businesses in this area that barely survived the recession and are hanging on by their fingernails," said Brenda Hall, chief executive of Bridge360, an Austin-based software developer. "If the economy takes another leg down or doesn't get better soon, there's going to be a huge second wave of failures as those barely-alive firms are swept away."

The lack of business, and the uncertainty regarding future business, is the principal obstacle to accelerated hiring, according to many of our roundtable participants.[4] "We can't afford to have another full-time employee, so we're doing a lot of the work ourselves," said Elizabeth Barrios, president of Office Wall Solutions in Richmond, Virginia. "It's one of those vicious circles. We need to get the construction jobs coming in so we can go out and install. If we have the business coming into the company and the money coming in, we can put that into another employee. [But] we're just not getting the business in."

"I don't see a light at the end of the tunnel," said Suman Saripalli, founder and president of Intellispeak, LLC in Lawrence, Kansas, a research and development venture specializing in the physical sciences and engineering. "I think we have structural problems that are getting more difficult. For example, there are whole classes of jobs that I think will never come back—classes of jobs that have long been considered the foundations of the middle class. If those jobs are hit and stay deflated, can we really expect any kind of recovery? Another problem is that the housing industry remains down because people don't have jobs. That's why they're not buying, and because they're not buying other people don't have jobs. And it just goes round and round."

"To effectively grow and create jobs, businesses have to think strategically," said Jerry Ross, Executive Director of the National Entrepreneur Center in Orlando, Florida. "Today, no one is thinking strategically. Everyone is thinking tactically because they have to in order to get through this. So that they're still around when it's time to do a strategic plan and think about hiring."[5]

A participant in our Austin, Texas roundtable spoke for many of our entrepreneurs: "I'm about to sign a lease to triple my space because I see growth, but I'm scared. I don't need another 2008. I'm not normally doom and gloom, but I'm worried."

And like a dense fog that settles over an area given the right conditions of temperature and humidity, continued economic weakness combined with regulatory burden and complexity, access to capital difficulties, a shortage of qualified talent, and tax complexity have produced a profound uncertainty among many of the entrepreneurs we met.

"There's a lot of uncertainty and angst out there about the long-term direction and health of the economy," said Jeff Cornwall, Director of the Center for Entrepreneurship at Belmont University in Nashville, Tennessee. In January, Cornwall was named the Entrepreneurship Educator of the Year by the U.S. Association of Small Business and Entrepreneurship. "I work with lots of young entrepreneurs, and we're creating a lot of start-ups in our program. These young folks are really thinking about long-term viability and what's going to sustain them. And quite honestly, many are very pessimistic about the next 10 to 20 years—and yet they're still trying."

"So much unpredictability is driving decisions," said Laura Yamanaka, president of teamCFO in Los Angeles. "Our clients are pulling back, sitting on a lot of cash because they don't know. The patterns aren't there. They can't rely on their customers, can't rely on their vendors, can't rely on the market, and now we can't rely on the government."

And, of course, this psychology of apprehension and hesitation only further reinforces the problem of insufficient demand, as worried business owners postpone spending, investment, expansion, and hiring.

"For us and for most people I talk to, it's no more business as usual," said Bob Burns, president of construction management firm RL Burns, Inc. in Orlando, Florida. "We've made some pretty good investments in our business in the past—equipment, staff, training, education, and so on. But taking the risk of those investments today is not very wise, and I don't think many others do it either. It's very difficult to consider investing money in a future you just can't see. There's no way to gauge it or really know what the next year is going to look like. . .So today we're looking to cut back, get lean, and stay lean. . .We have absolutely no plans to upgrade our equipment or purchase new computers. They're going to hang around until they blow up. Any kind of long-term investment is off the table."

Bobbie Kilberg, president and chief executive officer of the Northern Virginia Technology Council in Herndon, Virginia pointed out an additional source of uncertainty facing businesses in the greater Washington, DC area: “Many of our members, a lot of whom are small companies, are federal contractors or subcontractors. The inevitable [government] cutbacks are simply going to have to come in defense as well as civilian agencies, given the budget situation. And that will hit particularly hard on small businesses. Those businesses don’t have the ability to put people on the sidelines and wait for those contracts to come back along.”

Travis McCready, former executive director of the Kendall Square Association in Cambridge, Massachusetts highlighted a similar problem: “There is great uncertainty about what the federal government will do regarding R&D dollars. If you look back at the history of Kendall Square, MIT, and how some of our best companies have been built over the years, many of them have their roots in R&D dollars from some aspect of the federal government. We have no certainty now, no predictability about federal research dollars. And that’s going to be an issue going forward.”

Rodney Hughes, Managing Partner of Orlando-based South Star Distribution Services, which designs and installs energy reducing roofing materials, explained how protracted economic weakness and uncertainty have changed the way businesses make decisions, including hiring. “Rather than making longer-term decisions about investing in their business and hiring and training people based on trends and what they see coming from farther down the road, now it’s job to job. We hire people as independent contractors based on the jobs we get, rather than hiring full time.”

■ ■ ■

Perhaps the most fascinating aspect of the problem of too little economic dynamism and too much uncertainty was what, or rather who, the vast majority of our entrepreneurs blame for such debilitating circumstances. While a range of factors were cited as contributing to the halting recovery—the still struggling housing market, continued deleveraging by the American consumer, political turmoil and recession in Europe—most of our participants insistently and even angrily blamed the sluggish U.S. economy on what they perceive as poor leadership, dysfunction, and outright incompetence in Washington, D.C. Many cited policymakers’ inexplicable inability or unwillingness to address problems they see as threatening the future of the nation itself, most notably federal budget deficits and the national debt. Others railed against policymakers’ apparent ignorance regarding the needs and priorities of business.

"I could have all the tax credits in the world," said Craig Sonksen, owner of Krema Natural Peanut Butter and Crazy Richard's Natural Peanut Butter brands in Dublin, Ohio, "but if I don't have more business, I'm not going to hire a soul. I cashed my Bush tax refund check happily a number of years ago, and I get a payroll tax break now from Obama. But here's my personal soapbox—quit gerrymandering the economy. How about we get back to some basic free-market capitalism? Stop trying to use this lever and that lever. If they just left us alone to do what we do best, we'd all be much better off."

Jamie Rhodes, chief executive officer of National NanoMaterials, Inc. in Austin, Texas and vice chairman of the Angel Capital Association, and himself a successful entrepreneur, agreed. "The people in power in Washington not only don't understand business, they don't have a clue. When we go to war, I want the generals up there leading. And when the war is kick-starting the economy, I want the people who run businesses, not the career politicians, to be the leaders. Someone who understands business, who understands how to rebuild a healthy middle class—that's who I want leading. Especially right now when we're in this economic crisis."

Still others were more cynical, dismissing policymakers as hopelessly conflicted and, therefore, incapable of making decisions in the best interest of the country. "The politicians are largely ignorant and make decisions based on short-term political considerations," lamented Laura Yamanaka of teamCFO in Los Angeles. "Or they know the consequences of their decisions, but just don't seem to care."

As context, it should be remembered that our roundtables took place over the summer of 2011, with most occurring as Congressional Republicans and the White House were negotiating a deal to raise the nation's debt ceiling.[6] Negotiations became increasingly intense, and as the days ticked down to the deadline of August 2, the date the Treasury Department said it would likely run out of money, the unthinkable—that the U.S. might default on its national debt—became all too imaginable. Finally, on July 31, President Obama and Speaker of the House John Boehner announced that an agreement had been reached. President Obama signed the Budget Control Act of 2011 into law on August 2.

Four days later, on August 5, Standard & Poor's downgraded the credit rating of the U.S. government for the first time in our nation's history. Following S&P's downgrade, markets around the world experienced their most volatile week since the 2008 financial crisis, with the Dow Jones Industrial Average plunging 635 points on August 8.

■ ■ ■

In expressing pessimism regarding the ability of Congress and the Administration to work together constructively to address the nation's fiscal challenges, S&P proved prescient. The Budget Control Act of 2011, which resolved the 2011 debt-ceiling crisis, cut more than $900 billion in discretionary spending over 10 years and created a Joint Select Committee on Deficit Reduction, commonly referred to as the "Supercommittee," to produce bipartisan legislation by November of 2011 to reduce the deficit by an additional $1.2 trillion over 10 years. If the Committee failed to achieve that objective, the Act required deep across-the-board spending cuts—referred to as "sequestration"—split evenly between defense and nondefense spending. The cuts were to total $110 billion per year, or $1.2 trillion over 10 years.

Sequestration was intended to be so unthinkable, given the fragility of the economic recovery, and therefore so painful politically, that it would force members of the Supercommittee to make the hard choices necessary to reach a bipartisan agreement.

But in the end, the Supercommittee, perhaps predictably, failed to reach agreement, triggering sequestration to begin on January 2, 2013. That timing happened to coincide with the expiration of legislation[7] that had extended for two years tax cuts from 2001 and 2003, commonly referred to as the "Bush tax cuts."[8] Expiration of all the relevant tax cuts was estimated to amount to an aggregate tax increase of about $400 billion.[9] The Tax Policy Center estimated that 80% of American households would experience some form of increase, with the average household facing a tax increase of about $3,700.

The coincident timing of the sequestration spending cuts and expiring tax cuts became known as the "fiscal cliff," a term first used by Federal Reserve Chairman Ben Bernanke.[10] According to the Congressional Budget Office (CBO), the total fiscal impact of the cliff would be about $500 billion annually, or about 4% of GDP. The CBO also estimated that the spending cuts and additional tax revenue would reduce the federal budget deficit from more than $1 trillion in 2012 to about $640 billion in 2013—and by as much as $7 trillion over the next 10 years, reducing the federal debt-to-GDP ratio to 58% in 2023, compared to 90% without the cliff. But the CBO also predicted that the fiscal contraction would push the U.S. back into recession, with the economy likely to contract by 3% in the first half of 2013, eliminating some 2 million jobs and raising the unemployment rate to more than 9%.

Business and consumer anxiety provoked by the threat of the cliff likely worsened economic conditions far in advance of the year-end deadline. In July of 2012, CBO

Director Doug Elmendorf warned reporters that uncertainty caused by the cliff could reduce economic growth by 0.5%. "We think it's an issue now, and it will be increasingly an issue in the second half of the year for people's decisions."[11]

A report released in October of 2012 by the National Association of Manufacturers concluded that business anxiety in the months approaching the year-end cliff had, in fact, cost 0.5 percentage points in economic growth in 2012—and as many as 1 million jobs.[12] A survey of more than 900 chief executives of small businesses conducted by *The Wall Street Journal* in December of 2012 found that, due to anticipated tax increases associated with the fiscal cliff negotiations, 30% of respondents indicated they planned to hire fewer workers, while another 32% planned to reduce capital and equipment spending.[13] In the weeks leading up to the year-end cliff, surveys of consumer and business confidence plunged.[14]

Following month-long negotiations between the Administration and Congress, a deal was finally reached to avoid the cliff just three hours before the midnight December 31, 2012 deadline.[15] President Obama signed the American Taxpayer Relief Act on January 3, 2013. The Act raised tax rates on personal income above $400,000 for individuals and $450,000 for couples from 35% to 39.6%. According to CBO Director Elmendorf, the higher rates would mean 750,000 fewer new jobs in 2013.[16] The Act also postponed—until March 1—the deep spending cuts known as sequestration.

March 1 arrived with no further agreement on taxes and spending. And so what was intended to never happen, indeed what was designed to be unthinkable both economically and politically, actually happened. Sequestration, the indiscriminate, across-the-board cuts in government spending, totaling $1.2 trillion over 10 years, went into effect.[17] In the weeks that followed, furlough notices for hundreds of thousands of government workers and contractors were issued, a third of the nation's air traffic control towers were closed, national parks made plans for reduced public access and security during the coming summer, and even public tours of the White House were suspended.

In announcing the failure of negotiations to avoid sequestration, President Obama commented:

> Washington sure isn't making it easy. At a time when our businesses have finally begun to get some traction—hiring new workers, bringing jobs back to America—we shouldn't be making a series of dumb, arbitrary cuts to things that businesses depend on and workers depend on, like education, and research, and infrastructure and defense. It's unnecessary. And at a

> time when too many Americans are still looking for work, it's inexcusable . . .This is not a win for anybody. This is a loss for the American people.

■ ■ ■

Reading the previous section—which summarizes what happened in Washington regarding debt and taxes between our final roundtable and the publication of our book—one can understand the frustration, exasperation, and even anger expressed by so many of our entrepreneurs.

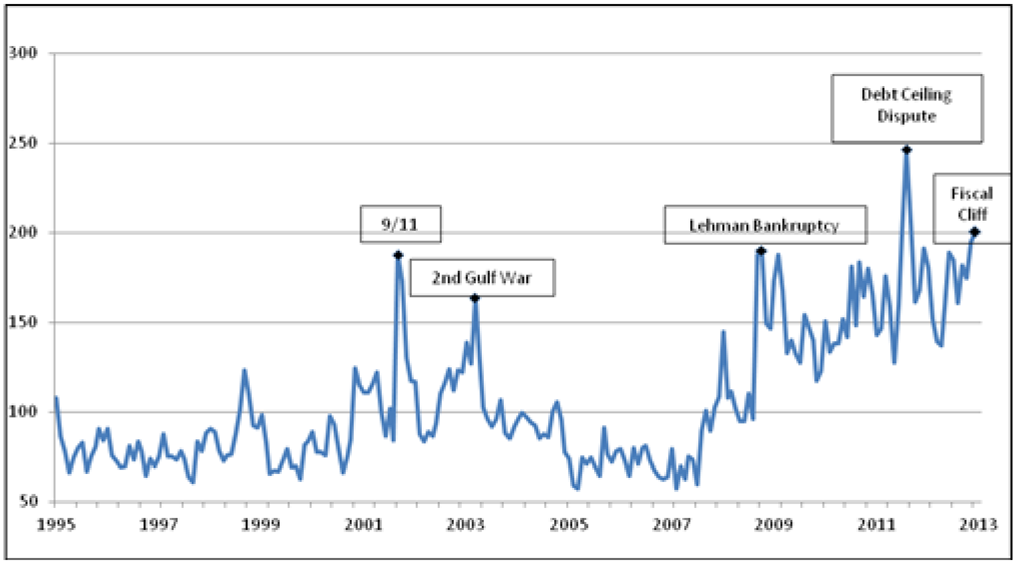
"We're on the verge of becoming a third world country," declared a participant in our Herndon, Virginia roundtable. "The politicians are playing Russian roulette and they don't have any damn idea who's holding the gun. I try to be optimistic about America, but right now I think they're going to plunge us into the biggest unknown this country has ever seen—and I'm including in that the Civil War. . .The debt ceiling is just a symptom of the disease, which is that we're spending far more than we bring in. Fix the problem! Do something!"

"Small business owners need customers feeling confident about the economy to start spending their money," said Clay Banks, director of economic development at the Chamber of Commerce in Bartlett, Tennessee outside Memphis. "When we talk about the fact that we're already borrowing 50 cents of every dollar we spend, and now we're talking about borrowing even more, that money has to come from somewhere. It's coming out of the pockets of consumers that entrepreneurs need out there spending money."

Patrick Flynn, president of Flynn Construction in Austin, Texas agreed. "I talked to a buddy of mine last night who has a plant here in Austin—100,000 square feet. He's a good-sized manufacturer. He said, 'I've got a million dollars to invest in equipment right now but, hell, I'm not going to do it. So I'm shedding jobs instead.' It's the uncertainty, the lack of stability and consistency. . .This isn't high school politics. We've got to get on with it! We have to lead! We need Washington to lead because you've got 315 million people in this country that are scared to death about what's going to happen tomorrow."

Our roundtable participants' expressions of acute uncertainty, and the impact of that uncertainty on their ability to expand their businesses and create jobs, are consistent with recent work done by economists Scott Baker and Nicholas Bloom of Stanford University and Steven Davis at the University of Chicago.[18] The trio has constructed an index of "policy uncertainty" and analyzed the relationship of the index relative to previous levels of economic output, investment, and employment.[19]

Figure 8.1: **Economic Policy Uncertainty Index**



Source: **www.PolicyUncertainty.com**

As Figure 8.1 shows, their index reached its historic high in August of 2011—higher than following the terror attacks of September 11, 2001 or the bankruptcy of Lehman Brothers in September of 2008—due principally to the protracted U.S. debt ceiling negotiations. The index spiked again in the weeks approaching the fiscal cliff. As the economists explained in a Bloomberg editorial:

> When businesses are uncertain about taxes, health-care costs, and regulatory initiatives, they adopt a cautious stance. Because it is costly to make a hiring or investment mistake, many companies will wait for calmer times to expand. If too many businesses wait, the recovery never takes off.

Astonishingly, Baker, Bloom, and Davis estimate that if policy uncertainty were restored to 2006 levels, U.S. businesses would create 2.5 million new jobs within 18 months![20] A similar analysis recently conducted by economists at the Vanguard Group concluded that policy uncertainty since 2011 has created a $261 billion "uncertainty tax" on the economy, without which economic growth would have been 3% rather than 2%, and more than 1 million additional jobs would have been created.[21]

"Where's the leadership?" asked an exasperated Mark Luden, chief executive of the Guitammer Company in Westerville, Ohio. "It's the uncertainty out there. When people are uncertain, those with capital sit on their hands. Those who are trying to sell decide to wait. And buyers who are able to wait just wait. It's the uncertainty that's killing us. And, yeah, I hear President Obama and people in Congress talk about how innovation is the driver of growth and job creation, but where's the follow-up? My response to uncertainty is, 'Where's the leadership?' Until someone leads and gets rid of some of the uncertainty out there, you're going to have problems getting people to buy and invest. If you're a big company like Walmart, you can wait it out. But if you're new and small, all of this makes it harder to stay afloat."

Policy Recommendations

With the frustrations, challenges, and obstacles cited by our roundtable participants in mind, and with the intention of accelerating economic growth and job creation by enhancing the circumstances for new business formation, survival and growth, we offer the following policy recommendations:

Establish a Preferential Tax and Regulatory Framework to Cultivate New Business Formation and Growth

- The Internal Revenue Service (IRS) should be directed to establish a new entrepreneur—or "e-corp"—tax status, whereby newly launched businesses would be subject to a five % flat income tax for the critical first five years after formation. Such favorable and predictable tax treatment will help cultivate new business formation, survival, and growth by allowing new businesses to retain and reinvest most of what they earn, preserving critical cash flow, and eliminating the distraction and burden of tax complexity and uncertainty.

- The Congressional Budget Office (CBO) and the Office of Management and Budget (OMB) should be directed to co-develop a preferential regulatory framework to which new businesses would be subject for their first five years. The framework should be comprised of only the most essential product safety, environmental, and worker protection regulations. To minimize regulatory uncertainty, the new-business framework should also protect new businesses from new regulations for the first five years. Co-development of the preferential framework by CBO and OMB is important since regulation is the implementation of Congressional intent by executive branch agencies.

- To avoid abuse of the preferential tax and regulatory framework—such as business owners simply renaming or reconstituting existing companies every five years—the IRS, working with CBO and OMB, should develop appropriate definitions, characteristics, and limitations regarding the meaning of "new business."

- New businesses should be permitted to use the cash method of accounting during the critical first five years of their operation. The cash method is simpler, less costly, and easier for new businesses to understand than accrual accounting or other more complex accounting methods to which some businesses are subject.

- New businesses should be permitted 100% first-year expensing of business-related capital, equipment, off-the-shelf software, and real estate investment costs for the first five years after formation. New businesses with no taxable earnings in particular years during their initial five years should be permitted to carry forward the deduction of such expenses for 15 years beyond the year in which the capital expenses were incurred.

- Because new businesses often have no earnings in their initial years of operation, new firms should be permitted to deduct R&D spending up to $250,000 from the payroll taxes they pay on employee wages in the following year, rather than against income taxes, for the first five years after formation.

Enhance the Quality, Technical Capacity, and Flexibility of the American Workforce

- Students who complete an undergraduate or post-graduate degree in science, technology, engineering, or mathematics should be provided a $50,000 federal tax credit that can be deducted from taxable income up to $10,000 per year over the initial five years of their post-graduate employment.

- High quality and experienced talent needed to successfully scale new businesses should be incentivized to consider joining rapidly growing start-ups by meaningfully offsetting the "life risk" often associated with new businesses. In particular, the proceeds of all exercised stock options issued to employees of new businesses less than five years old should be taxed at the reduced long-term capital gain rate. In addition, the $100,000 per employee annual vesting limit on incentive stock options (ISOs) and the requirement to pay the ISO strike price at the time of exercise should be eliminated.

- The Department of Education, in partnership with nationwide business groups, should launch an ongoing dialogue between business and education leaders to regularly examine kindergarten through grade 12, college, and university curricula to ensure that the nation's education system serves the broader educational needs of students, as well as the skill requirements of 21st-century businesses. A major focus of the dialogue should be to facilitate business community input into curricula determinations, aptitude standards, and study programs, as well as to increase opportunities for active business professionals and other practitioners to participate in and outside the classroom as instructors, assistants, advisors, and mentors.

- The Department of Education, in partnership with national education groups, should launch an ongoing dialogue among educators at all levels about how to make American education—both at the systemic level and with regard to classroom techniques and methodologies—more flexible, creative, and innovative. Specifically, core skills such as reading, writing, math, and science should be augmented by personal motivation, creative problem solving, communication, and collaboration skills.

- The Unemployment Insurance (UI) and Trade Adjustment Assistance (TAA) programs should be combined and modernized to create a world-class, 21st-century framework of economic adjustment assistance for displaced American workers.

Attract and Retain the World's Best Talent

- Eliminate the cap on H1-B visas.

- A permanent residency card—"graduation green card"—should be automatically awarded to any foreign-born student meeting national security requirements who graduates from an American college or university with an undergraduate or post-graduate degree in science, technology, engineering, or mathematics.

- A high-skill immigrant green card category of at least 50,000 cards annually should be established to attract top international graduates in STEM fields who meet national security requirements. These preferential green cards should be awarded based on a points system that rewards skills, level of education and training, entrepreneurship, English proficiency, and other key metrics in order to attract applicants with desired economic backgrounds.

- A special "start-up visa" should be created for foreign-born entrepreneurs meeting national security requirements who want to start a business in the U.S. and who have secured at least $100,000 in initial funding. Foreign-born entrepreneurs would be admitted on a temporary two-year basis. If by the end of that two-year period their business has been successfully launched, is producing verifiable revenue, and has produced jobs for at least two nonfamily members, the temporary visa would be extended by an additional three years. If the new business continues to be successful and produce verifiable revenue, and has created jobs for at least five nonfamily members by the end of the five-year period, the foreign-born entrepreneur would be granted permanent residency.

- A new service-toward-citizenship program—“CitizenCorps”—should be established whereby undocumented workers could earn U.S. citizenship over a period of years through extended service to their communities. The program should be modeled on AmeriCorps, the federal program created by the National and Community Service Trust Act of 1993, in which participants serve their communities through a network of partnerships with local and national nonprofit groups.

Enhance Access to Capital for New Businesses

- The Small Business Administration (SBA) should be directed to initiate a dialogue with lending banks and entrepreneurs with the aim of making SBA lending more available, less complex and cumbersome, less physical asset–based, and less restrictive of new businesses’ tactical and strategic decision making.

- The formation and commitment of angel capital should be incentivized by enacting a federal tax credit for those who invest in start-ups equal to 25% of the investment, and relieving from federal income tax any capital gains on investments in start-ups held for at least three years.

- Companies with annual gross revenue of less than $500 million should be exempt from compliance with section 404 of the Sarbanes-Oxley Act. In addition, companies with annual gross revenue of between $500 million and $5 billion should be permitted to opt out of compliance with section 404 during the first five years of operation, based on a majority vote of the company’s shareholders.

- In order to restore the economics necessary to support a robust market for small IPOs, the SEC should create an optional pricing regime for the shares of public companies with a market capitalization of less than $700 million (borrowing from the definition of “emerging growth company” established by the JOBS Act). The new pricing regime would establish fixed minimum tick sizes—say, 10 cents for stocks under $5 per share, 20 cents for stocks valued at $5 or higher. Participation in the alternative pricing regime would be optional—small issuers could choose to list under the alternative regime or under the current regime. Companies already public with a market capitalization of less than $700 million could also choose to move into the alternative pricing regime. The two parallel regimes, operating side-by-side, would preserve pricing and other benefits to investors of one-penny spreads in the market for larger company stocks, while also preserving the economics necessary to support the research, underwriting, and liquidity upon which a thriving market for smaller IPOs depends.

Reduce Regulatory Burden, Complexity, and Uncertainty

- CBO and OMB should be directed to co-conduct third-party analysis of the economic costs and benefits of all proposed new regulations. The third-party review should require analysis of the costs of the proposed regulation in relation to other federal regulations, as well as existing state and local regulations. In particular, the third-party review should focus on the impact of the proposed new regulation on new and small businesses.

- Proposed regulations determined to have economic costs, or costs to new and small businesses, that exceed identifiable benefits should require Congressional approval.

- Congress and the President should create through signed legislation a federal Regulatory Improvement Commission (RIC), modeled on the Base Closure and Realignment Commission (BRAC). The RIC's purpose would be to serve as a procedural mechanism for the regular evaluation, simplification, streamlining, consolidation, and elimination of selected existing regulations.

- A nationwide initiative should be launched, in partnership with entrepreneurial organizations and facilities around the country, to develop a research framework by which all 50 states will be ranked as to their regulatory friendliness to new business formation, survival, and growth. Metrics and rankings should be published online for easy and widespread use by entrepreneurs. To further incentivize a "race to the top" among states, the federal government might consider allocating economic development block grants to states based on their annual ranking for the purpose of funding enhancements of their entrepreneurship ecosystem.

Accelerate Scientific and Commercial Innovation

- Federal funding of research and development should be restored to its historical high of 2% of GDP annually.

- The research and development tax credit should be restored to its former status as the most favorable in the world—and should be made permanent.

Accelerate Economic Growth by Reducing Fiscal and Economic Uncertainty

- Gradual but significant long-term deficit and debt reduction should be enacted, including meaningful changes to federal entitlement programs, with an emphasis on spending reduction.

- Comprehensive, competitiveness-enhancing reform of the U.S. tax code should be enacted to simplify individual and corporate tax frameworks, significantly lower rates, incentivize work and investment, and permit the repatriation of overseas corporate profits.

- President Obama's initiative to double exports within five years should be accelerated by jump-starting the U.S. trade agenda. Specifically, the U.S. should launch additional market-opening freer trade initiatives around the world, focusing on large trading partners like Japan and Taiwan, as well as rapidly growing emerging markets like Brazil, India, and China. Negotiations should emphasize industry sectors (manufacturing, software, telecommunications, finance, consulting, accounting, engineering) with the greatest potential market—and job creating—opportunities.

Conclusion

Mr. Chairman, my colleague and I came away from our summer on the road struck most of all by our nation's stunning entrepreneurial dynamism. Despite the downward trend in the rate of new business formation in recent years, and despite very challenging economic circumstances, entrepreneurs all across America—driven by a desire to create and build, and enabled by the development of new technologies—continue to launch new companies, build those businesses, and pursue their dreams of independence and wealth. Having witnessed such dynamism and commitment first hand, we are more optimistic about the future of the U.S. economy than ever.

But our summer road trip also revealed several critical realities. First, new businesses are extremely fragile —a third fail by their second year, half by their fifth. And yet, those new businesses that survive tend to grow and create jobs at very rapid rates.

Second, the policy needs and priorities of new businesses are unique. Start-ups are different from existing businesses. While they confront challenges similar to those of existing businesses, their ability to successfully navigate those challenges is more limited.

Third—and enormously significant from the standpoint of potential policy solutions—the problems and obstacles encountered by entrepreneurs across the country are remarkably consistent. Notwithstanding differences in local economic conditions and regulatory environments from region to region—and acknowledging differences in emphasis from one city to the next—entrepreneurs from Austin to Boston and from Seattle to Orlando identified the same burdens, frustrations, and difficulties that are undermining their efforts to start new businesses, expand young firms, and hire.

Fourth, policymakers in Washington do not sufficiently understand or appreciate the unique nature, importance, vulnerability, and needs of start-ups. Focused on the priorities of either large corporations or the small business community, policymakers too often overlook and neglect the economy's true engine of job creation.

Finally, America's entrepreneurs need help. Given the critical role they play in our nation's economy as the principal source of innovation, dynamism, growth, and job creation, America's young businesses need and deserve a comprehensive and *preferential* policy framework designed to cultivate new business formation and dramatically enhance the prospects of new business survival and growth.

Fortunately, Washington is beginning to listen. On December 8, 2011, Senator Jerry Moran (R-KS) and Senator Mark Warner (D-VA)—himself a successful telecommunications entrepreneur—introduced legislation called the Start-Up Act, which aims to help new businesses by reducing regulatory burdens, attracting business investment, accelerating the commercialization of university research, and attracting and retaining the world's best entrepreneurial talent. On February 14, 2013, Senators Moran and Warner introduced an updated version of the plan, Start-Up Act 3.0, along with co-sponsors Senator Chris Coons (D-DE) and Senator Roy Blunt (R-MO). Similarly, the Jumpstart Our Business Startups ("JOBS") Act, enacted in April of 2012, is intended to improve new businesses' access to financing. Both pieces of legislation are important steps in the right direction. But more progress is urgently needed on many other fronts—and help is needed from both the public and private sectors.

Our sincere hope—not only for the nation's entrepreneurs, but especially for the nearly 23 million unemployed or underemployed Americans and their families—is that policymakers in Washington will hear the urgent message sent by job creators, and give serious consideration to the policy proposals we have recommended in response. The details of what we have proposed can and should be debated, and no doubt we have overlooked important issues or underestimated certain political realities. But given that our recommendations respond directly and specifically to what our participating entrepreneurs told us—indeed, a number of the recommendations were offered by the entrepreneurs themselves—there can be no doubt that the policy ideas offered, if implemented, would dramatically enhance the circumstances for new business formation, survival, and growth and, therefore, significantly accelerate economic growth and job creation.

The grim circumstances that gave rise to this project have only persisted. Economic growth remains subpar and some 20 million Americans—of all ages, backgrounds, education levels, and skill sets—remain either unemployed, underemployed, or have left the workforce discouraged. Without decisive action soon, entire generations of Americans might be left behind in the wake of the Great Recession.

The job creators have told us what they need. The strength and stability of our economy, and the health, vitality and social cohesion of our nation are at stake.

There's no time to waste. Let's get to work!

Endnotes

Introduction

1. Robert E. Litan and Ian Hathaway, "Declining Business Dynamism in the United States: A Look at States and Metros," The Brookings Institution, May 2014.

Not Just Small Business…*New* Business

1. Statistics of U.S. Businesses, U.S. Census Bureau.
2. John Haltiwanger, Ron S. Jarmin, and Javier Miranda, "Business Dynamics Statistics Briefing: Jobs Created from Business Start-Ups in the United States," Ewing Marion Kauffman Foundation, January 2009.
3. Tim Kane, "The Importance of Start-Ups in Job Creation and Job Destruction," Ewing Marion Kauffman Foundation, July 2010.
4. Since August 6, 2012, Bob Litan has been Director of Research at Bloomberg Government.
5. Mike Horrell is currently pursuing a PhD at the University of Chicago.
6. Robert E. Litan and Michael Horrell, "After Inception: How Enduring is Job Creation by Start-Ups?" Ewing Marion Kauffman Foundation, July 2010. Also see Dane Stangler and Robert E. Litan, "Where Will the Jobs Come From?" Ewing Marion Kauffman Foundation, November 2009.
7. John C. Haltiwanger, Ron S. Jarmin, and Javier Miranda, "Who Creates Jobs? Small vs. Large vs. Young," NBER Working Paper Series, Working Paper 16300; August 2010.
8. Jonathan Cummings et al., "Growth and Competitiveness in the United States: The Role of Its Multinational Companies," McKinsey Global Institute, July 2010. See also Martin Baily, Matthew Slaughter, and Laura D'Andrea Tyson, "The Global Jobs Competition Heats Up," *Wall Street Journal*, July 1, 2010.
9. Robert M. Solow, "Technical Change and the Aggregate Production Function," Review of Economics and Statistics, (The MIT Press) 39, no.3 (1957):312-320.
10. Anthony Breitzman and Diana Hicks, "An Analysis of Small Business Patents by Industry and Firm Size," Small Business Administration, Office of Advocacy, November 2008.
11. Robert E. Litan and Carl Schramm, *Better Capitalism*, Yale University Press, 2012.

12. Dane Stangler and Paul Kedrosky, "Exploring Firm Formation: Why is the Number of New Firms Constant?" Ewing Marion Kauffman Foundation, January 2010.

13. See Scott Shane, "The Great Recession's Effect on Entrepreneurship," Federal Reserve Bank of Cleveland, March 24, 2011. Also see John Bussey, "Shrinking in a Bad Economy: America's Entrepreneur Class," *Wall Street Journal*, August 12, 2011.

14. Carol Leming, "Entrepreneurship and the U.S. Economy," Business Employment Dynamics, Bureau of Labor Statistics.

15. Robert E. Litan and Ian Hathaway, "Declining Business Dynamism in the United States: A Look at States and Metros," The Brookings Institution, May 2014.

16. Robert E. Litan and Ian Hathaway, "The Other Aging of America: The Increasing Dominance of Older Firms," The Brookings Institution, July 2014.

17. Catherine Rampell, "When Job-Creation Engines Stop at Just One," *New York Times*, October 4, 2012.

18. BLS data. See Eleanor J. Choi and James R. Spletzer, Bureau of Labor Statistics, "The Declining Average Size of Establishments: Evidence and Explanations," *Monthly Labor Review*, March 2012.

19. BLS data. Also see Jeremy Greenfield, "Job Growth Stalls as New Businesses Fail to Take Off," *Wall Street Journal*, August 14, 2011.

20. See Carl Schramm and Bob Litan, Start-Up Act Whiteboard (Kansas City, MO: Ewing Marion Kauffman Foundation, www.youtube.com/watch?v=Zrwl5yO3vC4&fea ture=related.

"Not Enough People with the Skills We Need"

1. Our focus on the shortage of skilled talent in STEM fields should not be interpreted to mean that education in the humanities is unimportant or without value. On the contrary, humanities graduates can and do offer unique and essential value to the modern economy, even in technology-based fields. See Michael S. Malone, "How to Avoid a Bonfire of the Humanities," *Wall Street Journal*, October 24, 2012; and Norm Augustine, "The Education Our Economy Needs," *Wall Street Journal*, September 21, 2011.

2. Our entrepreneurs aren't alone in questioning the value of a four-year college degree. See Megan McArdle, "Is College a Lousy Investment?" *Newsweek*, September 9, 2012; Louis Menand, "Live and Learn," *The New Yorker*, June 6, 2011; and Gary Gutting, "What Is College For?" *New York Times*, December 14, 2011.

3. "Raising the Bar: Employers' Views on College Learning in the Wake of the Economic Downturn," survey conducted among employers on behalf of the Association of American Colleges and Universities, Hart Research Associates, January 20, 2010.

4. Aysegul Sahin, Joseph Song, Giorgio Topa, and Giovannie L. Violante, "Measuring Mismatch in the U.S. Labor Market," Federal Reserve Bank of New York, November 2010. Also see Justin Lahart and Ben Casselman, "Seeking to Match Skills and Jobs," *Wall Street Journal,* October 3, 2011.

5. "Young, Underemployed, and Optimistic," Pew Research Center, Washington, DC, February 9, 2012.

6. Stephanie Banchero, "U.S. High-School Students Slip in Global Rankings," *Wall Street Journal*, December 3, 2013.

7. Eric A Hanushek, Paul E. Peterson, and Ludger Woessmann, "Achievement Growth: International and U.S. State Trends in Student Performance," Taubman Center for State and Local Government, John. F. Kennedy School of Government, Harvard University, July 2012.

8. Joel Klein, "The Failure of American Schools," *The Atlantic*, June 2011.

9. Joel I. Klein and Condoleezza Rice (chairs), "U.S. Education Reform and National Security," Independent Task Force Report No. 68, March 2012. For a spirited critique of the task force report, see Diane Ravitch, "Do Our Public Schools Threaten National Security?" *New York Review of Books,* June 7, 2012.

10. Paul E. Peterson, Ludger Woessmann, Eric A. Hanushek, and Carlos X. Lastra-Anadon, "Globally Challenged: Are U.S. Students Ready to Compete?" Taubman Center for State and Local Government, John F. Kennedy School of Government, Harvard University, August 2011. Also see George P. Shultz and Eric A. Hanushek, "Education Is the Key to a Healthy Economy," *Wall Street Journal,* April 30, 2012.

11. "2013 Talent Shortage Survey," ManpowerGroup, May 28, 2013.

12. "Boiling Point: The Skills Gap in U.S. Manufacturing," Deloitte LLP and The Manufacturing Institute, October 17, 2011. Also see "Challenges Facing America's Workplaces and Classrooms," testimony of Jay Timmons, President and CEO, The National Association of Manufacturers, before the House Committee on Education and the Workforce, February 5, 2013; and Peter Whoriskey, "U.S. Manufacturing Sees Shortage of Skilled Factory Workers," *Washington Post,* February 19, 2012.

13. Margo D. Beller, "Need a Job? Siemens Still Seeking 3,000 U.S. Workers," *CNBC,* October 7, 2011.

14. Timothy Aeppel, "Man vs. Machine, a Jobless Recovery," *Wall Street Journal,* January 17, 2012. Circumstances are particularly grim for the 25 million Americans over the age of 25 who lack a high-school diploma, less than 40 percent of whom are currently employed. See Clare Ansberry, "As Job Market Mends, Drop-Outs Fall Behind," *Wall Street Journal*, February 21, 2012.

15. Emily Maltby and Sarah E. Needleman, "Small Firms Seek Skilled Workers, But Can't Find Any," *Wall Street Journal,* July 26, 2012.

"Our Immigration Policies Are Insane"

1. Matthew Herper, "Gene Machine," *Forbes*, January 17, 2011.
2. See John M. MacDonald and Robert J. Sampson, "Don't Shut the Golden Door," *Wall Street Journal*, June 19, 2012.
3. Institute of International Education, "Open Doors 2012: International Student Enrollment Increased By 6 Percent," press release, November 12, 2012.
4. U.S. Department of Commerce.
5. September 13, 2012 letter to President Barack Obama and Congressional leadership from the presidents of more than 150 U.S. universities, www.renewoureconomy.org/ sites/all/themes/pnae/university-letter.pdf.
6. On April 8, 2008, DHS announced an extension of Optional Practical Training for qualified students. U.S. State Department, http://travel.state.gov/visa/temp/types/ types_1268.html. Also see Grant Gross, "DHS Extends Time Foreign Students Can Stay in U.S.," *Computerworld*, April 7, 2008.
7. Three other lesser known and small-number options are the O-1, EB-1, and EB-5 visas. O-1 visas permit foreign nationals of "extraordinary ability" to work in the United States for three years. The EB-1 visa is similar, but leads to permanent residency. The EB-5 visa permits entry for foreign nationals willing to invest at least $500,000 and willing to create at least 10 full-time jobs for U.S. workers. 12,200 O-1s were issued in 2011, along with about 25,000 EB-1s, according to the U.S. Citizenship and Immigration Service. See Sarah McBride, "U.S. 'Genius' Visa Attracts Entrepreneurs and Playmates," *Reuters*, June 29, 2012.
8. In addition to these requirements, the sponsoring employer must also obtain a labor condition attestation (LCA) from the Department of Labor prior to filing the H-1B petition with the Immigration & Naturalization Service. A LCA is required to ensure that foreign workers are not exploited by U.S. employers and are paid the same salaries and obtain the same benefits as their American counterparts.
9. Department of Homeland Security.
10. See www.uscis.gov, H-1B Fiscal Year (FY) 2013 Cap Season. Allen Smith, "H-1B Visa Cap Reached Much Sooner Than in 2011," Society for Human Resource Management, June 14, 2012.
11. Miriam Jordan, "Employer Demand Soars for Skilled-Worker Visas," *Wall Street Journal*, April 5, 2013. Also see Miriam Jordan, "Visa Demand Jumps," *Wall Street Journal*, April 1, 2013.
12. The Brookings Institution, "The Search for Skills: Demand for H-1B Immigrant Workers in U.S. Metropolitan Areas," July 18, 2012.
13. See www.us-immigration.com/index.html?referrer=adwords&gclid=CLLLne6eg 7MCFcid 4Aod-QQAqQ.
14. National Foundation for American Policy, "Still Waiting: Green Card Problems Persist for High Skill Immigrants," June 2012.

15. Vivek Wadhwa, *The Immigrant Exodus: Why America is Losing the Global Race to Capture Entrepreneurial Talent*, (Philadelphia: Wharton Digital Press, 2012). Also see Edward Luce, “U.S. Immigration Policy is Killing Innovation,” *Financial Times*, October 21, 2012.

16. Visa Bulletin for September 2012, State Department, www.travel.state.gov/visa/bulletin/bulletin_5759.html.

17. L. Gordon Crovitz, “The Economics of Immigration,” *Wall Street Journal*, February 3, 2013. Also see David Skorton, “Congress Must Reform Immigration Laws That Send Top Stem Graduates to China,” *Christian Science Monitor*, August 22, 2012.

18. www.renewoureconomy.org/sites/all/themes/pnae/university-letter.pdf

19. The Defense Advanced Research Projects Agency (DARPA), the primary engine of innovation for the Department of Defense, was established in 1958 to maintain the technological superiority of the U.S. military. To fulfill its mission, the Agency relies on diverse performers to apply multi-disciplinary approaches to both advance knowledge through basic research and to create innovative technologies that address current practical problems through applied research. DARPA’s scientific investigations range from laboratory efforts to the creation of full-scale technology demonstrations in the fields of biology, medicine, computer science, chemistry, physics, engineering, mathematics, material sciences, social sciences, neurosciences and more. For more information, see www.darpa.mil/.

20. Vivek Wadhwa, AnnaLee Saxenian, Richard Freeman, and Alex Salkever, “Losing the World’s Best and Brightest,” Ewing Marion Kauffman Foundation, March 2009.

21. Chris Morris, “The Immigrant Exodus: Will the U.S. Run Out of Entrepreneurs?” *CNBC*, October 23, 2012. Also see Wadhwa, *The Immigrant Exodus*.

22. Bettina Hein, “An Entrepreneur at Heart,” *New York Times*, May 19, 2012.

23. Robert W. Fairlie, “Kauffman Index of Entrepreneurial Activity, 1996–2010,” Ewing Marion Kauffman Foundation, March 2011. Also see Peter H. Schuck and John Tyler, “Give Us Your Huddled Masses of Engineers,” *Wall Street Journal*, May 13, 2011.

24. David Dyssegaard Kallick, “Immigrant Small Business Owners: A Significant and Growing Part of the Economy,” Fiscal Policy Institute, June 2012. Also see Robert W. Fairlie, “Estimating the Contribution of Immigrant Business Owners to the U.S. Economy,” Small Business Administration, Office of Advocacy, November 2008; and Miriam Jordan, “Migrants Keep Small-Business Faith,” *Wall Street Journal*, June 13, 2012.

25. Partnership for a New American Economy, “The ‘New American’ Fortune 500,” June 2011. Also see remarks by Michael R. Bloomberg, mayor of New York City, before the Council on Foreign Relations, June 5, 2011.

26. Stuart Anderson, “Immigrant Founders and Key Personnel in America’s 50 Top Venture-Funded Companies,” National Foundation for American Policy, December 2011.

27. Editorial Board, “STEMming the Decline of Foreign-Born Tech Graduates,” *Washington Post*, September 19, 2012.

28. The Partnership for a New American Economy, “Patent Pending: How Immigrants Are Reinventing the American Economy,” June 2012. Also see Jennifer Hunt and Marjolaine Gauthier-Loiselle, “How Much Does Immigration Boost Innovation?” *American Economic Journal: Macroeconomics* 2, no. 2 (2010): 31–56; and Andrew Martin, “Immigrants Are Crucial to Innovation, Study Says,” *New York Times*, June 25, 2012.

29. Madeline Zavodny, “Immigration and American Jobs,” American Enterprise Institute and the Partnership for a New American Economy, December 2011. Also see “Visa Protectionism,” Review & Outlook, *Wall Street Journal*, April 12, 2012.

30. Address at the Immigration and American Competitiveness Conference, U.S. Chamber of Commerce and the Partnership for a New American Economy, September 28, 2011.

31. Brooke Donald, “Blueseed Start-Up Sees Entrepreneur-Ship as Visa Solution for Silicon Valley,” *Associated Press*, December 16, 2011.

32. Kai Ryssdal, “Don’t Have a Visa to Work Here? I Have Some Office Space to Rent You in the Ocean,” *Marketplace*, March 14, 2013.

“Not All Good Ideas Get Funded Anymore”

1. Survey of Small Business Finances, Federal Reserve Board. Also see Scott A. Shane, *The Illusions of Entrepreneurship: The Costly Myths That Entrepreneurs, Investors, and Policy Makers Live By*, (New Haven, CT: Yale University Press, 2008), 79–80. 1996 dollar figure converted to 2012 dollars by way of CPI Inflation Calculator, Bureau of Labor Statistics: www.bls.gov/data/inflation_calculator.htm.

2. Survey of Consumer Finances, Federal Reserve Board. See Elizabeth Duke, Governor, Federal Reserve Board, “Small Business Credit Availability,” April 14, 2011.

3. Walter Isaacson, *Steve Jobs*, (New York: Simon & Schuster, 2011), 62–67.

4. Robert H. Scott III, “The Use of Credit Card Debt by New Firms,” Ewing Marion Kauffman Foundation, August 2009.

5. Sarah E. Needleman, “Angels Can Fund Your Next Step,” *Wall Street Journal*, August 25, 2012.

6. Federal Reserve Board, “Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances,” *Federal Reserve Bulletin*, June 2012. Also see Ylan Q. Mui, “Americans Saw Wealth Plummet 40 Percent from 2007 to 2010, Federal Reserve Says,” *Washington Post*, June 11, 2012.

7. Lisa Scherzer, "Credit Card Issuers Cut off Consumers," *Wall Street Journal*, May 9, 2008, and Beth Healy, "Lenders Abruptly Cut Lines of Credit," *Boston Globe*, January 31, 2009.

8. Robbie Whelan, "When the Home Bank Closes," *Wall Street Journal*, February 1, 2012. Also see Ian Mount, "Why It's Getting Harder, and Riskier, to Bet the House," *New York Times*, November 30, 2011. Also see Mark E. Schweitzer and Scott A. Shane, "The Effect of Falling Home Prices on Small Business Borrowing," *Economic Commentary*, December 20, 2010.

9. For a terrific overview of the venture capital industry, see Paul A. Gompers and Josh Lerner, *The Money of Invention: How Venture Capital Creates New Wealth*, (Boston: Harvard Business School Publishing, 2001).

10. Paul Kedrosky, "Right-Sizing the Venture Capital Industry," Ewing Marion Kauffman Foundation, June 10, 2009.

11. Deborah Gage, "The Venture Capital Secret: 3 or 4 Start-Ups Fail," *Wall Street Journal*, September 19, 2012.

12. National Venture Capital Association statistics. Also see Bryan Pearce and Martin Haemming, "Back to Basics: Global Venture Capital Insights and Trends," Ernst & Young, 2010.

13. *Sarbanes-Oxley Section 404 Costs and Implementation Issues: Spring 2006 Survey Update* (Washington, DC: CRA International, April 17, 2006).

14. Interview with *BloombergBusinessweek*, March 13, 2012.

15. For an explanation of the history of, and reasoning for, decimalization, see "Report to Congress on Decimalization," Staff of the Securities and Exchange Commission, July 2012. Other market structure–related contributing factors include SEC order handling rules in 1997, Regulation ATS in 1998, and the emergence and growing popularity of ETFs.

16. See David Weild and Edward Kim, "Market Structure Is Causing the IPO Crisis—And More," Grant Thornton, June 2010.

17. Polachi, Inc. Also see Scott Austin, "Majority of VCs in Survey Call Industry 'Broken,'" Scott Austin, *Wall Street Journal*, June 29, 2009.

18. Matt Richtel, "Venture Investors Wrap Up an Unusually Bleak Quarter," *New York Times*, June 28, 2008.

19. Cambridge Associates, press release, November 1, 2010. Also see Diane Mulcahy, Bill Weeks, and Harold S. Bradley, "We Have Met the Enemy . . . And He Is Us: Lessons from Twenty Years of the Kauffman Foundation's Investments in Venture Capital Funds and the Triumph of Hope Over Experience," Ewing Marion Kauffman Foundation, May 2012.

20. David Weild and Edward Kim, "Why Are IPOs in the ICU?" Grant Thornton, November 2008.

21. *Global Insight and Survey of Top 136 VC-Based Companies that Went Public 1970–2005*, National Venture Capital Association.

22. Testimony of David Weild, Senior Advisor, Grant Thornton LLP, before the Subcommittee on Capital Markets and Government Sponsored Entities of the House Financial Services Committee, June 20, 2012.

23. "We're seeing fewer new venture funds being raised, which means less capital is available for new investments. And, we're seeing venture capitalists be very cautious with the capital that is available due to the lack of a significant number of liquidity events," NVCA news release, October 19, 2012. Also see Pui-Wing Tam, "Venture Firms Narrow Sights in Tough Times," *Wall Street Journal*, February 3, 2013.

24. Matt McCall, "VC's Mathematical Challenge," *VC Confidential*, www.vcconfidential.com/ 2009/06/vcs-mathematical-challenge.html.

25. See Fred Wilson, "The Venture Capital Math Problem," www.avc.com/a_vc/2009/04/ the-venture-capital-math-problem.html.

26. Needleman, "Angels Can Fund Your Next Step."

27. Pui-Wing Tam and Spencer E. Ante, "Super Angels Alight," *Wall Street Journal*, August 16, 2010.

28. Robert Wiltbank and Warren Boeker, "Returns to Angel Investors in Groups," Ewing Marion Kauffman Foundation and the Angel Capital Association, November 2007.

29. "Financing High-Growth Firms: The Role of Angel Investors," Directorate for Science, Technology and Industry, OECD, January 2012. Also see Angus Loten, "Angel Investors Play Big Role for Start-Ups, Think Tank Says," *Wall Street Journal*, January 24, 2012.

30. Angel Capital Association and National Venture Capital Association.

31. "Seed Investing Report—Start-Up Orphans and the Series A Crunch," *CB Insights*, December 19, 2012. Also see Nicole Perlroth, "After Rocky Year for Start-Ups, Investors Are Pickier," *New York Times*, January 13, 2013.

32. According to the wealth research firm Spectrum Group, the number of U.S. households with a net worth of at least $1 million (not including primary residences) fell 27 percent to 6.7 million in 2009 from 9.2 million in 2007. The number of households with investible assets of at least $1 million fell 26 percent to 4.4 million.

33. Jeffrey Sohl, "The Angel Investor Market in 2013: A Return to Seed Investing," Center for Venture Research, April 30, 2014.

34. Angus Loten, "Chasing the New Angel Investor," *Wall Street Journal*, December 15, 2011.

"Over-Regulation is Killing Us"

1. "Clearing the Way for Jobs and Growth: Retrospective Review to Reduce Red Tape and Regulations," statement of Michael Mandel, PhD, before the Subcommittee on Courts, Commercial and Administrative Law of the U.S. House Committee on the Judiciary, July 12, 2012.
2. See Hannah Seligson, "Hatching Ideas, and Companies, By the Dozens, at MIT," *New York Times*, November 24, 2012.
3. Andrew Von Eschenbach and Ralph Hall, "FDA Approvals Are a Matter of Life and Death," *Wall Street Journal*, June 17, 2012.
4. Testimony of Jonathan H. Adler, Director of the Center for Business Law and Regulation, Case Western Reserve School of Law, before the Subcommittee on Courts, Commercial, and Administrative Law of the House Judiciary Committee, January 24, 2011.
5. James L. Gattuso and Dianne Katz, "Red Tape Rising: A 2011 Mid-Year Report on Regulation," The Heritage Foundation, July 25, 2011. Also see James L. Gattuso and Dianne Katz, "Red Tape Rising: Obama-Era Regulation at the Three Year Mark," The Heritage Foundation, March 13, 2013.
6. Statistics in this paragraph are taken from Clyde Wayne Crews, "Ten Thousand Commandments: An Annual Snapshot of the Federal Regulatory State," Competitive Enterprise Institute, 2013. Also see "Red Tape Record Breakers," Review & Outlook, *Wall Street Journal*, May 19, 2013.
7. Susan Dudley and Melinda Warren, "Growth in Regulators' Budget Slowed by Fiscal Stalemate: An Analysis of the U.S. Budget for Fiscal Years 2012 and 2013," Regulatory Studies Center at George Washington University and the Weidenbaum Center on the Economy, Government, and Public Policy at Washington University in St. Louis, July 2012.
8. John Merline, "Regulation Business, Jobs Booming Under Obama," *Investor's Business Daily*, August 15, 2011.
9. President Barack Obama, "Toward a 21st-Century Regulatory System," *Wall Street Journal*, January 18, 2011.
10. John McArdle and Emily Yehle, "Obama Administration Outlines 500 Reforms to Save Businesses Billions," *New York Times*, August 23, 2011.
11. Nicole V. Crain and W. Mark Crain, *The Impact of Regulatory Costs on Small Firms* (Washington, DC: Small Business Administration, Office of Advocacy, September 2010).
12. For a similar discussion on how regulations create powerful incentives not to hire, see Jay Goltz, "Why I'm (Still) Reluctant to Hire," from "You're the Boss: The Art of Running a Small Business," *New York Times*, September 7, 2011.

"Tax Payments Can Be the Difference Between Survival and Failure"

1. Robert Carroll, Douglas Holtz-Eakin, Mark Rider, and Harvey Rosen, "Entrepreneurs, Income Taxes, and Investment," in *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, Joel Slemrod, ed. (New York: Russell Sage Foundation and Harvard University Press, 2002), pp. 427–455; and William M. Gentry and R. Glenn Hubbard, "Success Taxes, Entrepreneurial Entry, and Innovation," National Bureau of Economic Research, Working Paper No. 10551, June 2004. Also see Robert Carroll, Douglas Holtz-Eakin, Mark Rider, and Harvey Rosen, "Income Taxes and Entrepreneurs' Use of Labor," *Journal of Labor Economics* 18, no. 2 (April 2000): 324–351.
2. Emily Maltby and Angus Loten, "Cliff Fix Hits Small Business," *Wall Street Journal*, January 3, 2013.
3. The term refers to Chapter 1, Subchapter S of the Internal Revenue Code. For definition, requirements, restrictions and other details, see www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/S-Corporations.
4. Robert Carroll and Gerald Prante, "Long-Run Macroeconomic Impact of Increasing Tax Rates on High-Income Taxpayers in 2013," Ernst & Young, July 2012. Also see J. D. Harrison, "Obama Plan to Lift Top Tax Rate Would Plague Millions of Small Businesses, Study Warns," *Washington Post*, July 17, 2012.
5. John D. McKinnon, "More Firms Enjoy Tax-Free Status," *Wall Street Journal*, January 10, 2012.
6. *Taxing Businesses Through the Individual Income Tax* (Washington, DC: Congressional Budget Office, December 2012.
7. National Federation of Independent Business.
8. Robert Carroll and Gerald Prante, "The Flow-Through Business Sector and Tax Reform," April 2011. Also see Trip Gabriel, "A Fuller Picture in the Small-Business Tug of War," *New York Times*, July 13, 2012.
9. Scott Shane, "The Politics and Economics of Taxing Small Business Owners," *Business Insider*, July 16, 2012.
10. Emily Maltby, "Small Firms Fret Over Higher Taxes," *Wall Street Journal*, December 5, 2012.
11. The term "fiscal cliff," first used by Federal Reserve Chairman Ben Bernanke in testimony before the House Financial Services Committee on February 29, 2012, referred to unique and highly adverse fiscal policy circumstances facing Washington policymakers as of January 1, 2013. Those circumstances included tax increases associated with the expiration of The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, and major defense and non-defense spending reductions mandated under The Budget Control Act of 2011.
12. See "Tax Revenues to More Than Double by 2023, While Top Tax Rates Hit Highest Level Since 1986," Chairman David Camp, House Committee on Ways and Means, press release, February 13, 2013. Also see Emily Maltby and Angus

Loten, “Small Firms Scramble to Redraw Plans,” *Wall Street Journal*, January 2, 2013.

13. Director Elmendorf discussed the impact of higher rates on jobs beginning in minute 29:30 of a press briefing on February 5, 2013: www.c-span.org/Events/CBO-Report-Deficit-Will-Fall-to-Less-Than-1-Trillion-in-2013/10737437810/.

14. Crain and Crain, *Impact of Regulatory Costs on Small Firms*.

15. *Taxes and Spending: Small Business Owner Opinions* (Washington, DC: National Federation of Independent Business, March 7, 2013).

16. The original credit’s expiration date was December 31, 1985. The credit has expired eight times and has been extended 14 times.

17. “Startups Advise Obama: Focus on Taxes and Talent As Second Term Begins,” Silicon Valley Bank, January 18, 2013.

“There’s Too Much Uncertainty—and It’s Washington’s Fault”

1. Jan Bouten, “Memphis’ Start-Up Niche: Bio-Engineering and Logistics,” *Wall Street Journal*, January 29, 2013.

2. Paul Wiseman, “U.S. Economic Recovery Is Weakest Since World War II,” *Associated Press*, August 15, 2012.

3. Catherine Rampell, “Hiring Picks Up in July, But Data Gives No Clear Signal, *New York Times*, August 3, 2012.

4. Nelson D. Schwartz, “Recovery in U.S. Is Lifting Profits, But Not Jobs,” *New York Times*, March 3, 2013.

5. For a similar presentation of the kinds of comments and sentiments we heard from our participants, see the following segment from the *PBS Newshour*: “Why Are Small Businesses Reluctant to Hire?” December 5, 2011; www.pbs.org/newshour/extra/video/blog/2011/12/why_are_small_businesses_reluc.html.

6. The debt ceiling is a legislative restriction on the amount of national debt that can be issued by the Treasury Department. Because actual government expenditures are authorized by Congress through legislation, the debt ceiling does not limit or reduce government deficits. Rather, it can only restrain the Treasury from paying for expenditures that have already been incurred.

7. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. Without passage of the 2010 law, income taxes would have returned to Clinton Administration–era rates in January 2011. The Act also extended some provisions from the American Recovery and Reinvestment Act of 2009, commonly known as “the Stimulus Act,” and included several other measures as part of a compromise agreement between President Obama and Congressional Republicans, mostly notably an extension of unemployment benefits and a one-year reduction in the FICA payroll tax.

8. The Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003.

9. Rates affected included income taxes, the Earned Income Tax Credit, capital gains and dividend taxes, payroll taxes, and the estate tax.

10. In testimony before the House Financial Services Committee on February 29, 2012, Bernanke stated: "Under current law, on January 1, 2013, there's going to be a massive fiscal cliff of large spending cuts and tax increases. I hope that Congress will look at that and figure out ways to achieve the same long-run fiscal improvement without having it all happen at one date."

11. Rebecca Berg, "Fear of Year-End Fiscal Stalemate May Be Having Effect Now," *New York Times*, July 11, 2012.

12. Jeff Werling, "Fiscal Shock—America's Economic Crisis: The Impact of the Pending Fiscal Crisis on Jobs and Economic Growth," University of Maryland, October 2012. Also see Lori Montgomery, "One Million Jobs Already Lost Due to Fiscal Cliff," *Washington Post*, October 26, 2012.

13. Emily Maltby and Angus Loten, "Cliff Fix Hits Small Business," *Wall Street Journal*, January 3, 2013. Also see Sudeep Reddy and Scott Thurm, "Investment Falls Off a Cliff," *Wall Street Journal*, November 19, 2012.

14. "Consumer Sentiment Plunges in December," *Reuters*, December 7, 2012; Catherine Rampell, "Small-Business Optimism Plunges," *New York Times*, December 11, 2012. Also see Catherine Rampell, "Forecast Is Sunnier, But Washington Casts a Big Shadow," *New York Times*, December 16, 2012.

15. Lori Montgomery and Paul Kane, "Obama, Senate Republicans Reach Agreement on Fiscal Cliff," *Washington Post*, December 31, 2012.

16. Director Elmendorf discussed the impact of higher rates on jobs beginning in minute 29:30 of a press briefing on February 5, 2013: www.c-span.org/Events/CBO-Report-Deficit-Will-Fall-to-Less-Than-1-Trillion-in-2013/10737437810/

17. David Rogers, "Sequestration: Senate Fails in Last-Chance Bid to Avoid Sequester," *Politico*, February 28, 2013; see also Devin Dwyer and Mary Bruce, "Obama Signs Order to Begin Sequester Cuts After President, Congress Can't Reach Deal," *ABC News*, March 1, 2013.

18. Scott R. Baker, Nicholas Bloom, and Steven J. Davis, "Measuring Economic Policy Uncertainty," June 4, 2012.

19. David Wessel, "Trying to Calculate the Cost of Uncertainty," *Wall Street Journal*, December 5, 2012.

20. See Scott R. Baker, Nicholas Bloom, and Steven J. Davis, "Policy Uncertainty Is Choking Recovery," *Bloomberg*, October 5, 2011. Also see "Measuring Economic Policy Uncertainty," October 10, 2011.

21. Bill McNabb, "Uncertainty is the Enemy of Recovery, *Wall Street Journal*, April 28, 2013.