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THE CHALLENGES AND OPPORTUNITIES OF RUNNING A SMALL BUSINESS IN RURAL AMERICA

HEARING

BEFORE THE

COMMITTEE ON SMALL BUSINESS AND ENTREPRENEURSHIP UNITED STATES SENATE

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C O N T E N T S

Opening Statements

Witnesses

Alphabetical Listing

THE CHALLENGES AND OPPORTUNITIES OF RUNNING A SMALL BUSINESS IN RURAL AMERICA

WEDNESDAY, APRIL 26, 2017

UNITED STATES SENATE,
COMMITTEE ON SMALL BUSINESS
AND ENTREPRENEURSHIP,
Washington, DC.

The Committee met, pursuant to notice, at 10:00 a.m., in Room SR–428A, Russell Senate Office Building, Hon. James E. Risch, Chairman of the Committee, presiding.

Present: Senators Risch, Scott, Ernst, Inhofe, Young, Rounds, Kennedy, Shaheen, Cantwell, and Heitkamp.

OPENING STATEMENT OF HON. JAMES E. RISCH, CHAIRMAN, AND A U.S. SENATOR FROM IDAHO

Chairman RISCH. Well, I want to thank everyone for coming today. We are—Senator Shaheen and I are holding this meeting on the challenges and opportunities of running a small business in rural America. We both come from states that have substantial rural components, and that has both benefits and challenges, and the purpose of this meeting today is to talk about those.

And so we—we are going to let the witnesses do the talking here, I think, and explore with questions when we are done.

And we have three witnesses. First, Mr.—how is it pronounced? Lettieri? Lettieri. All right. Mr. Lettieri leads the Economic Innovation Group's policy development, economic research, and legislative affairs efforts. His work has been focused on the trends of declining innovation and mobility in rural and economically distressed areas of the United States. We will be interested in hearing your point of view on those matters, Mr. Lettieri.

And Mr. Hobart comes to us from the great State of Idaho, and he began raising alpacas in Hayden, Idaho, in 2005, when his daughter asked to raise the animals as a 4–H project. After discovering that a market existed for alpaca fiber and yarn, the Hobarts opened Alpaca Direct, LLC, in Hayden, Idaho, one of the most beautiful spots in America, and a companion online store. Utilizing a variety of online and social media platforms, this small, family owned company grew into a hugely successful business that sells yarn from rural Idaho around the globe.

With that I will turn it over to the Ranking Member to introduce Mr. Riley.

OPENING STATEMENT OF HON. JEANNE SHAHEEN, RANKING MEMBER, AND A U.S. SENATOR FROM NEW HAMPSHIRE

Senator SHAHEEN. Well, thank you very much, Mr. Chairman, and like you I am very excited about hearing what our witnesses have to say this morning, because we know that rural America has not been recovering at the same rate, in many places, as urban America, and so I am anxious to hear what you all have to say, and particularly pleased that one of our witnesses this morning is Rob Riley, who is the President of the Northern Forest Center.

He comes to the Center after a career in a number of other areas in New Hampshire that are also critical to this discussion, because he served as director of a state-wide microenterprise program of the New Hampshire Community Loan Fund, that provides financing for small businesses. He also served as the founding executive director of Main Street Plymouth. Plymouth is a small town in New Hampshire. And his interest in the forest economy and rural communities really is rooted in his early days working on his family farm in southern Vermont, and he understands very well how the changing timber economy in New Hampshire has affected people and what we need to do to try and restore many of those communities.

And, Mr. Chairman, I just want to take a minute, because as we all know, small businesses are the backbone of rural communities, in your State of Idaho and my State of New Hampshire, and in so much of the country, and they really face a unique set of challenges, and I look forward to the insights that you all have to give us this morning on some of those challenges, because they have a more difficult time getting access to credit, they may be located far from major infrastructure projects, broadband and wireless are often difficult in rural areas, in New Hampshire in particular, and in much of the area that is served by Rob Riley, cell phone coverage is even challenging.

And then, in New Hampshire, we hear from our small businesses that they are having trouble getting access to skilled labor. And I saw a very dramatic example of that, and the difference that public policy can make for some of those businesses when I was in New Hampshire during the break, a couple of weeks ago. I visited a small town, or a small business in the town of Claremont, in the western part of New Hampshire. The business is called Costa Precision Manufacturing. It is an area of the State that has a really rich history in doing precision tool and die work. And they had just gotten a HUBZone designation from SBA, after waiting for literally years to get that, and fortunately, because—or unfortunately, from Vermont's perspective, that they had a closed—because of BRAC they had a base closing in Vermont and so Sullivan County, where Costa is, qualifies.

And one of the things they told me, right now they have 32 employees. He said, "If we could find the skilled labor, we could hire 6 of them tomorrow, and by the end of the month we could be up to 10, and we are looking at many more in the future." And they said one of the reasons that they see the growth as being so promising is because of this HUBZone designation. He said there are approximately 200 businesses in the United States that do the kind of work that Costa does, that has the same certifications, but the

HUBZone designation is setting them apart because there are only six companies in the United States, in their industry, that have a HUBZone designation, which means that they can do business with the government in a way that really gives them a leg up on many other of their competitors.

So, for me, that was a really dramatic example of the difference that SBA can make for our small businesses and that policy changes that we make here in Washington can really do to help encourage small business growth. So I look forward to the testimony of our witnesses this morning and to hearing what more we can do to try and encourage that kind of growth in our small businesses.

Thank you, Mr. Chairman.

Chairman RISCH. Thank you, Senator Shaheen. As you and I both know, living in states that have substantial components of rural areas, it is very different than what people are used to on the East Coast or the West Coast, and so I am going to try to highlight that a little bit and show that life is not exactly the same everywhere here in America.

So, with that, Mr. Lettieri, the floor is yours.

STATEMENT OF JOHN LETTIERI, CO-FOUNDER AND SENIOR DIRECTOR FOR POLICY AND STRATEGY, ECONOMIC INNOVATION GROUP, WASHINGTON, DC

Mr. LETTIERI. Thank you. Chairman Risch, Ranking Member Shaheen, members of the Committee, good morning. It is an honor to testify again before this committee.

Rural entrepreneurship and economic dynamism are at an important inflection point, as the geography of economic growth and opportunity has shifted decisively towards denser and more metropolitan areas in recent years.

Let me begin today by underscoring the fact that rural America is not monolithic. In fact, it is quite diverse. It includes many of the most prosperous and upwardly mobile places in the country, as well as places that suffer from the deepest and most persistent poverty. Furthermore, it is important to think of urban and rural as part of a gradient rather than a dichotomy. Fully 54 percent of the country's officially rural population actually resides within a metropolitan area. These communities share deep economic ties to their broader regions, and their fates are often tied to larger metropolitan fates. That is why I believe that the true fault line in our economy today is not between rural and urban communities but rather between communities that are highly connected and those that are isolated.

Highly connected communities, ones linked to global markets, human capital, modern infrastructure, and knowledge centers will be best positioned to thrive in the economy of the future. Such communities can be urban, rural, and everything in between. There are, however, widespread and irreversible shifts in the modern economy that present unique challenges for rural and small-town entrepreneurship.

Since the 1990s, the economic dividends to urbanization and density have increased enormously, thanks to the transformation of the geography of economic growth and dynamism. Consider that from 1992 to 1996, small counties, those with fewer than 100,000 in population, averaged more than twice the job and establishment growth of denser, high-density counties of over 1 million people. But by 2010, that had inverted completely. Small counties now lag far behind the national growth rates in both of those categories, and in some cases struggle to achieve positive growth at all.

Indeed, in spite of years of steady economic recovery nationally, more than 1 in 5 small counties have experienced a net loss of business establishments, employment, and population since the end of the Great Recession.

It is important to note, however, that denser and more populous places have not seen any substantial increase in their own start-up rates or local dynamism. Rather, they have simply been more resilient in the face of a broad national decline in the dynamism in the U.S. economy as a whole. This national trend includes not only widespread collapse of new firm formation but also historically low rates of labor market fluidity and geographic mobility among American workers, as well as a rapid market concentration in most industries. In such an environment, rural entrepreneurs face a reality that looks nothing like that of only 20 years ago.

In particular, the slow-down in new business formation started earlier and has been more severe in rural areas than elsewhere in the economy. One misperception is that rural firms are suffering from disproportionately high rates of firm closure, and this is simply not the case. The closure rate is, in fact, lower in non-metropolitan areas than in metropolitan areas. Businesses are not dying faster than they used to in rural America. What has changed is that far fewer new companies are being born to take the place of those that do.

For example, in absolute terms, the number of new companies formed in non-metropolitan United States in 2014 dipped below 50,000 for the first time on record, and this means that only half as many firms started in non-metropolitan regions in the 2010s as did in the late 1970s or early 1980s.

There are, however, positive signs related to entrepreneurial activity in other forms. For example, as traditional business formation stalled in small counties, several studies indicate that so-called platform-enabled entrepreneurship is on the rise through platforms like eBay and Etsy. Nevertheless, with diminished start-up activity comes reduced flexibility, less resiliency, and fewer job opportunities within local economies, so it is important to strengthen rural entrepreneurship if these areas are going to be successful in an ever-changing global economy.

In closing, as members of this committee consider policy solutions, I recommend focusing on policies that grow and expand connectivity for rural areas in all its various forms. Modernizing and repairing U.S. infrastructure is one obvious example. So, too, is ensuring that rural entrepreneurs have better access to capital. Another priority should be closing the significant digital divide between urban and rural areas. For example, 39 percent of rural Americans lack access to broadband compared to only 4 percent of urban Americans.

While ultimately I believe the most important solutions will come from State and local stakeholders, at the Federal level our primary focus should be on the urgent task of ensuring a broader economy that remains as flexible, dynamic, and adaptable as possible. Policies that help restore higher rates of dynamism, innovation, and growth for the Nation as a whole will be good for those who live in rural America, and make the challenges facing entrepreneurs a little less steep. In crafting such an agenda, we must avoid and eliminate policies that, even when well intentioned, tilt the balance too far in favor of guarantees versus opportunities, incumbents versus upstarts, or certainty versus healthy risk-taking.

Rural communities no doubt face challenges but they often have advantages that can help level that playing field, including quality of life, affordable and available land, access to natural resources, and strong social cohesion. Matching those local advantages with a national policy environment that promotes broad-based growth and connectivity is essential.

Thank you, and I look forward to answering your questions.

[The prepared statement of Mr. Lettieri follows:]

"The Challenges and Opportunities of Running a Small Business in Rural America"
Senate Small Business and Entrepreneurship Committee

April 26, 2017

John Lettieri
Co-Founder & Senior Director for Policy and Strategy
Economic Innovation Group (EIG)

Chairman Risch, Ranking Member Shaheen, and members of the committee, it is an honor to again have the opportunity to testify before this committee.

The state of rural America is an issue of much interest and debate today. Rural entrepreneurship and economic dynamism are at a particularly important inflection point, as the geography of economic growth and opportunity has shifted decisively toward denser and more metropolitan locations in recent years.

My testimony today can be summarized as follows:

- Rural America is not monolithic; many areas are doing quite well, and dramatic regional variations limit the usefulness of broad generalities in describing rural economies.

- The true fault line is not between rural and urban communities but rather between communities that are highly connected and those that are isolated. Increasing the connectivity of rural communities in terms of access to infrastructure, global markets, capital markets, the Internet, and human capital is essential for their future success.

- Nevertheless, there is a widespread and irreversible shift towards density in the modern economy that presents unique challenges for rural and small town entrepreneurship.

- Meeting these challenges will require rural America to reinvent itself for the future, not cling to past models of growth and industry. In doing so, state and local stakeholders will be the most essential. There is simply no substitute for local leadership.

- Policies that help restore higher rates of dynamism, innovation, and growth for the nation as a whole will be good for those who live in rural America—whether or not they choose to remain in rural communities. Such policies should be the primary focus of federal policymakers, with secondary considerations given to place-specific initiatives.

Defining "Rural"

One of the key challenges in evaluating rural America lies in defining it. There is simply not a single definition of what constitutes a rural community, and the statistical agencies use a variety of methods and metrics to assess rural economies. My testimony will draw from the three most common approaches. First, rurality can be determined by the population density of a community, which the Census Bureau does. Rural areas can also be defined at the county level as those outside of metropolitan areas, as the Bureau of Economic Analysis and Department of Agriculture do. Finally, it often makes sense to classify counties based on their population size, since counties of similar size classes seem to encounter similar economic trends in an age in which the returns to size and density appear to be rising. This is an approach EIG often takes in its work.

Definitional complexities aside, there is much we can glean from available data, beginning with the fact that rural America is not monolithic. While frequently lumped together, rural economies, histories, and communities in fact vary greatly. A prosperous farming community in the northern plains has little in common with the deep-rooted poverty of the Mississippi River basin.

Fully 54 percent of the country's officially "rural" population actually resides in a metropolitan area.[1] These communities share inextricable economic ties to their broader regions, and their fates are often tied to larger metropolitan fates. As categories, "urban" and "rural" are better understood as a gradient than a dichotomy. In many ways small and even mid-sized cities stand right alongside many rural areas in navigating the same economic headwinds.

Indeed, the true dichotomy today is not between urban and rural but rather between *connected* and *isolated*. Highly connected communities—ones linked to global markets, human capital, infrastructure, and knowledge centers—will be best positioned to thrive in the emerging economy.

Survey of Rural America

It is no secret that cities are increasingly important as centers for economic growth and vitality. The rural economy, however, has in many ways been remarkably resilient and is not, as a whole, doing as poorly as is commonly believed.

Demographics

Rural demographics show characteristics of stability, but not necessarily in ways that are likely to provide an economic boost. Rural Americans are older than their urban peers, with a median age of 43.5 versus 36.6 in cities. Nearly 60 percent of rural households are married (compared to 46 percent in urban areas), and more than three quarters of children live in a married couple household—which research shows is good for fostering upward mobility.[2] Only 3.3 percent of

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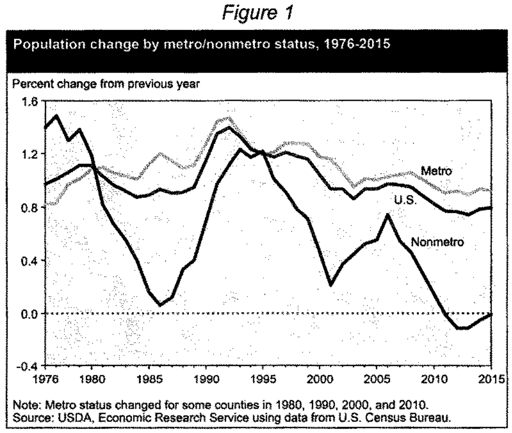
[1] U.S. Census Bureau Rural America: A Story Map. and Berube, Alan, "Political Rhetoric Exaggerates Economic Divisions Between Rural and Urban America." (Brookings Institution, 2016).
[2] U.S. Census Bureau American Community Survey 5 Year Estimates for 2010-2014. Chetty, Raj and Nathaniel Hendren, "The Effects of Neighborhoods on Intergenerational Mobility II: County-Level Estimates." (National Bureau of Economic Research, Working Paper No. 22910, 2016).

the rural population was born outside of the United States.[3] That figure is nearly five times higher in urban areas. As the United States faces its slowest population growth rate since the Great Depression, this urban-rural disparity in immigrant population will likely exacerbate rural demographic challenges in the years to come. While depopulation doesn't afflict all rural communities and population growth was stable in 2015, small counties comprised 95 percent of the 1,700 counties that lost population from 2010 to 2014.[4] Attesting to the diversity of rural regions, Figure 1 below shows that immigration from abroad did either offset the loss of native-born residents or slow the overall rate of population decline across a large swath of the central plains.

Population trends matter because population is a proxy for the size of the market or customer base in a location. As the number of local customers entrepreneurs can reach declines, connectivity to larger markets becomes all the more important to sustain their business. Nearly three-quarters of the small counties that lost population from 2010 to 2014 also lost business establishments, according to EIG's research.[5] Furthermore, population growth, immigration, and business dynamism are closely linked, as we will explore later in my testimony.

Figure 1



The size of the country's rural population has held remarkably stable for decades: the 59.5 million Americans living in rural areas in 2010 was the same number as in 1980 and only slightly higher than the 57.5 million in 1940.[6] The difference is that the urban population has grown

[3] Economic Innovation Group's analysis of U.S. Census Bureau American Community Survey 5 Year Estimates for 2010-2014.
[4] U.S. Department of Agriculture Economic Research Services' and Economic Innovation Group's analysis of U.S. Census Bureau data.
[5] EIG's analysis of Census' Business Dynamics Statistics and Population Estimates.
[6] "Measuring America: Our Changing Landscape." U.S. Census Bureau (2016).

inexorably, which is likely to continue. The rural economy has evolved with the country, and policymakers' challenge today is to ensure that it can continue to find new economic purposes in the decades to come.

Employment, earnings and poverty

Employment increased by 4 percent between 2010 and 2015 in nonmetropolitan counties, but nonmetropolitan counties still contained fewer jobs in 2015 than they did in 2007. By contrast, metropolitan employment increased by 11 percent over the same period—adding more than 10 million jobs to metropolitan America's pre-recession peak.[7]

While median household income is lower in rural areas ($52,400) compared to urban areas ($54,300), the differential is offset somewhat by lower costs of living.[8] The real gap is between metropolitan and nonmetropolitan areas: Median household income outside of metropolitan areas is only 75 percent of median household income within metropolitan areas ($44,700 compared to $59,300 in 2016).[9]

Rural residents are more likely than their urban peers to live above the poverty line. The rural poverty rate was 13.3 percent in 2015 compared to 16.0 percent in urban areas.[10] However, new research by the Brookings Institution finds the "working poor" is more rural than urban, relatively speaking. According to Brookings, 22 percent of the rural population is EITC-eligible, compared to 18 percent in large metro areas.[11] The gap between rural and urban poverty rates is highest in the South.[12] And the vast majority—85 percent—of the country's persistently poor counties are rural. These are counties that have had over a 20 percent poverty rate for at least 30 years. Not coincidentally, many of these post low educational attainment rates.[13]

Economic specializations

Rural areas specialize in a wide variety of economic activities, from agriculture to natural resource extraction to tourism and recreation. The USDA's Economic Research Service classifies nonmetropolitan counties according to the dominant economic activity taking place within them, providing a useful way for differentiating across rural America and disentangling the variety of economic trends facing different types of rural communities.

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[7] EIG's analysis of Bureau of Economic Analysis data.
[8] Bishaw, Alemayehu and Kirby Posey, "A Comparison of Rural and Urban America: Household Income and Poverty." (U.S. Census Bureau, 2016).
[9] U.S. Census Bureau Current Population Survey, 2016.
[10] Bishaw and Posey, 2016.
[11] Murray, Cecile and Elizabeth Kneebone, "The Earned Income Tax Credit and the White Working Class." (Brookings Institution, 2017).
[12] Bishaw and Posey, 2016.
[13] USDA, Economic Research Service Geography of Poverty, 2017.

For example, farming-dependent rural economies are depopulating fastest as agriculture automates and workforce requirements change. By contrast, many mining-dependent counties have seen large recent increases in population thanks to the boom in oil and gas drilling, although this growth may soon start to reverse as the boom subsides. Manufacturing-dependent counties, representing nearly one in five nonmetropolitan counties, have struggled alongside small and mid-sized metro areas battling the same headwinds. Recreation-dependent counties, often endowed with spectacular natural amenities, register high population growth rates and the highest median incomes among the different categories. By contrast, both public sector-dependent and non-specialized counties suffer with low wages and high poverty rates in the absence of robust private-sector activity.[14]

Of course, some counties combine multiple specializations to build a diversified economic base. The prospering rural Shenandoah Valley, for example, combines recreation with farming as well as warehousing and distribution and even high-end services, thanks to good infrastructure, proximity to metropolitan hubs, and a network of universities.

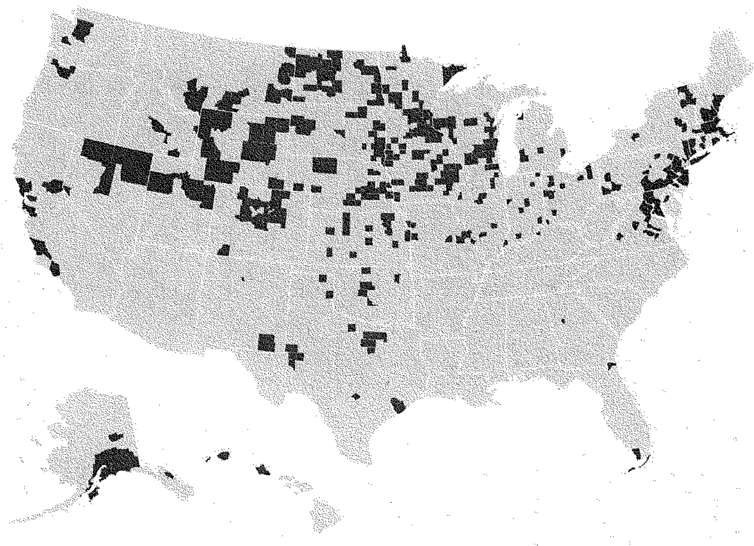
The differentiation of rural economies underscores the need for policy solutions to be organic and rooted in the rural economy. Policies can be neither top-down nor one-size-fits-all. Policy should seek to nurture rural entrepreneurship in its own ecosystem, reducing barriers, shrinking distances, promoting access to markets and capital.

Upward Mobility in Rural America

Rural areas have historically provided some of the highest rates of upward economic mobility in the United States. EIG analyzed data from its Distressed Communities Index and the Equality of Opportunity Project's estimates of place-based impacts on children's future earnings potential and found that 64 percent of all U.S. counties that are both prosperous today and have a history of fostering economic mobility are counties with fewer than 100,000 people. As shown in Figure 2 below, more than four out of five of these counties are scattered across the Midwest and Mountain West, painting a broad swath of prosperity and upward mobility across the northern tier of the nation.

[14] USDA, Economic Research Service Description and Maps: County Economic Types, 2015 Edition.

Figure 2
Counties that are both prosperous and foster upward mobility for poor kids



Source: EIG's analysis of Distressed Communities Index and Equality of Opportunity Project Data

These places have unique histories, strong social capital, and a deeply ingrained culture of work. Unemployment rates in the region are some of the lowest and labor force participation rates some of the highest nationwide. On average, 92 percent of the adult population has completed high school in these counties (compared to 86 percent nationwide), and only 35 percent of the over-16 population (which includes retirees) is not working (compared to 42 percent nationwide). Approximately 75 percent of children in these counties are raised in traditional married two-parent households. These counties (prosperous, upwardly mobile, and in the Midwest or Mountain West) are far less diverse than the country as a whole, however, with average minority populations of only 9 percent.[15]

At the same time, another large swath of rural America is a land of missing opportunity and of perpetual, persistent poverty. An astonishing 98 percent of counties that are both economically distressed and have a history of dragging down children's future earnings potential are small counties, and of those, 85 percent are located in the South. In these counties, nearly a quarter of adults have not graduated high school and 55 percent of the adult population (everyone over

[15] EIG's analysis of Census' ACS 5 Year Estimates for 2010-2014.

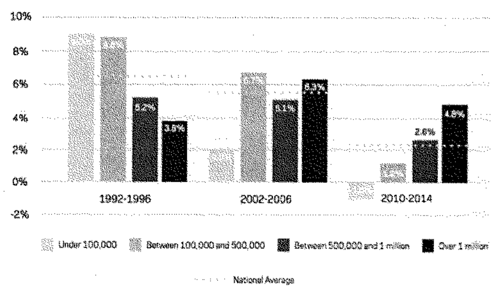
16) is not working. Approximately 44 percent of children in these counties grow up in non-traditional family arrangements.[16]

A Challenging Recovery

The Great Recession and the subsequent uneven recovery were unkind to small and rural counties. Nationally, a dismal 59 percent of U.S. counties saw more business establishments close than open during the first five years of the national recovery.[17] But in small counties, it was even higher at 64 percent. Likewise, 36 percent of counties under 100,000 residents saw employment declines over the same period, versus 31 percent of all U.S. counties.[18] Population shifts are also a factor, as 63 percent of small counties saw a net loss of population during the recovery.[19] In spite of broader national growth, more than one in five small counties experienced a net loss in all three categories: business establishments, employment, and population. On the other hand, 21 percent of small counties still managed to match the national establishment growth rate. These counties could be found throughout the country, from North Dakota to West Virginia, underscoring the resilience of many rural counties in bucking broader trends.[20]

The current recovery period also seems to have cemented a rather dramatic reversal of fortune in favor of densely populated areas in the distribution of job and business establishments. As recently as the mid-1990s, small counties led the nation in the rates of establishment and employment growth, while large counties posted the lowest rates in both categories. EIG's research shows that patterns of economic growth now strongly favor large urban counties, which is demonstrated in Figures 3 through 5 below.[21]

Figure 3
Average establishment growth rates by county size class



[16] EIG's analysis of Census' ACS 5 Year Estimates for 2010-2014.
[17] EIG, May 2016: 6-7.
[18] EIG's analysis of Census' County Business Patterns data.
[19] EIG's analysis of Census' Population Estimates data.
[20] EIG's analysis of Census' County Business Patterns and Population Estimates data.
[21] "The New Map of Economic Growth and Recovery." Economic Innovation Group (May 2016): 22-25.

Figure 4
Average employment growth rates by county size class

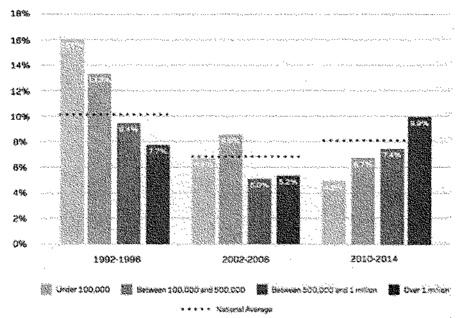
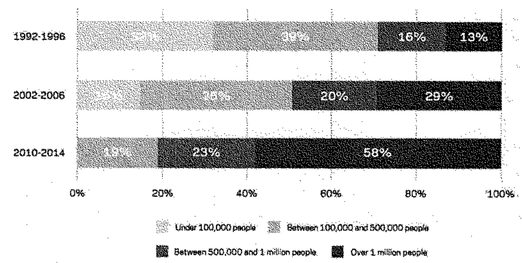


Figure 5
Share of net U.S. establishment creation by county size class



The regional reversal is especially stark when considering small counties' share of national net growth in business establishments. From 1992 to 1996, nearly one third of the net growth in U.S. establishments was housed in counties with under 100,000 residents. By the 2010s, these counties, which had once been such a promising engine of business growth, actually saw a *net decline* in their total number of establishments. Meanwhile, the counties with over one million in population had seen their share of net establishment growth go from 13 percent to a whopping 58 percent.[22]

Two Key Divergences: Education Attainment and the Services Economy

The present reality of rural economies diverges starkly from the trajectory of the U.S. economy in two deeply important ways that will impact the future of rural entrepreneurship and access to opportunity.

[22] EIG, May 2016: 22-25.

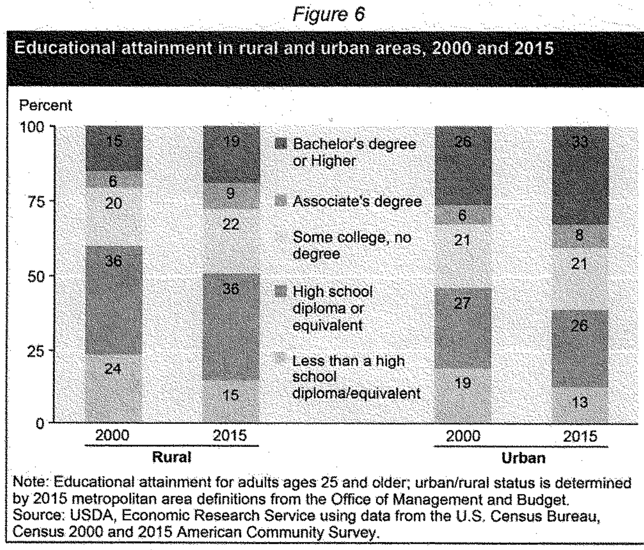
The first divergence is that educational attainment in rural areas badly lags the rest of the country. In an economy increasingly defined by "knowledge" work and cognitive skills, this limits opportunities from the individual perspective but also undermines the ability of firms or industries to locate operations in rural areas. In short, the education gap makes it harder for rural individuals to obtain jobs and harder for companies to consider rural locations.

- Only 19 percent of the rural population has a bachelor's degree, compared to 33 percent in metropolitan areas. Fully 51 percent of rural residents have no schooling beyond high school, compared to 39 percent in metro areas.[23]

- Even for the younger 25-34 year old cohort, the college attainment rate increased by 5 percentage points to 20 percent in rural areas compared to 7 percentage points to 36 percent in metropolitan areas from 2000 to 2015.[24]

- The gap in college attainment between the rural and metropolitan population has actually *widened* over the past 15 years.[25]

Figure 6



[23] USDA, Economic Research Service analysis of Census' ACS for 2000 and 2015.
[24] EIG's analysis of Census' ACS 5 Year Estimates for 2010-2014.
[25] USDA, Economic Research Service analysis of Census' ACS for 2000 and 2015.

It is difficult to overstate the importance of this trend. Recent research presents a bleak and somewhat stunning picture of economic and social malaise for Americans, notably white Americans, of lower education attainment. *Mortality itself* is rising within that group.[26]

The second and related divergence is that one of the largest, fastest growing, and highest paying sectors in the economy—business services—is extremely urbanized, much more so than manufacturing. Rural areas are home to 13 percent of all U.S. employment and 19 percent of all manufacturing employment but only 6 percent of all jobs in the information and professional, scientific, and technical services sectors.[27] These "knowledge economy" industries thrive in urban environments with deep talent pools and high levels of connectivity. The story of diverging economic performance is rooted in the concentration of this sector in particular.

The undersized rural services sector underscores why increasing connectivity is so important: to increase the number of potential customers and clients rural entrepreneurs can reach. The policy question is how to reduce the barriers facing rural individuals to tapping into opportunities in this growing, future-oriented sector.

Rural Entrepreneurship and Economic Dynamism

Before looking specifically at rural entrepreneurship, let's take a moment to consider the national picture. Since the onset of the Great Recession, the United States has experienced a rapid and persistent collapse in the rate of firm formation (the "startup rate"). The national drop in startup activity is at the heart of a broader decline of economic dynamism that extends to historically low rates of labor market fluidity and geographic mobility among American workers, rapid market consolidation and growing advantages for large incumbents in most industries, and steep differences in the distribution of new jobs and businesses between regions.

The startup slowdown

These national trends harbor troubling signs for rural regions. The slowdown in new firm formation started earlier and has been more severe in rural areas than in non-rural economies.

- New companies are much less likely to form in rural areas than in urban ones today. Nationally, as of 2014, 8.0 percent of all firms in the economy were started in the past year; in metropolitan areas the figure was 8.3 percent and in non-metropolitan areas it was 6.1 percent.[28]

- In absolute terms, over 355,000 new companies formed in the metropolitan United States in 2014; in non-metropolitan areas the figure dipped below 50,000, to 49,100, for

[26] Case, Ann and Angus Deaton, "Mortality and Morbidity in the 21st Century," *Brookings Papers on Economic Activity*, 2017.
[27] EIG's analysis of Bureau of Economic Analysis data.
[28] EIG's analysis of Census' Business Dynamics Statistics data.

the first time on record. This all-time low means that half as many firms started in nonmetropolitan regions in the 2010s as did in the late 1970s or early 1980s, even though the rural population has remained relatively stable. The steep national slowdown in new firm formation started earlier and has cut even deeper in rural areas.[29]

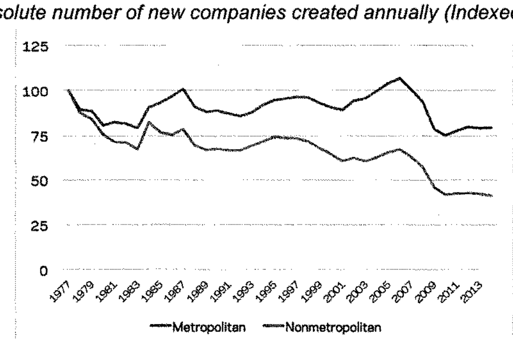
- Rural areas do not suffer from disproportionate rates of firm closures. In 2014, 7.1 percent of firms closed in nonmetropolitan areas, compared to 7.8 percent of firms in metropolitan areas.

- Taken into consideration with the firm startup rate, the key differentiating factor between metropolitan and nonmetropolitan counties is subdued dynamism in general—and depressed rates of new firm formation in particular. In other words, the crisis isn't that shops on Main Street are closing; they're doing that at roughly the same rate they have for many years. Rather, with a startup rate now a full percentage point below the closure rate, the problem is new businesses are no longer emerging quickly enough to take the place of those dying out through the natural course of competition and economic change.

Rural economies today are simply experiencing less change than metropolitan economies and producing fewer new "shots on goal"—new companies. With that comes reduced flexibility, less resiliency, and fewer new enterprises experimenting with new business models and taking new risks. Rural entrepreneurship is an absolute prerequisite for rural economic adaptation and for ensuring that rural areas find new lives in an ever-changing global economy.

Figure 7

Trends in absolute number of new companies created annually (Indexed to 1977=100)



Source: EIG's analysis of U.S. Census Bureau Business Dynamics Statistics data

[29] EIG's analysis of BEA data.

The state of economic dynamism in rural areas

EIG has conducted a significant amount of research into what makes a dynamic, entrepreneurial economy. Density certainly fosters dynamism, but the ingredients of a dynamic local economy are not confined to urban areas.

Dynamism starts with entrepreneurship but extends much more widely to encompass individuals migrating to economic opportunity, workers moving into more productive work arrangements, and markets remaining competitive. Forthcoming research from EIG finds that dynamism trends across states tend to hold over long periods of time, making inertia difficult to reverse. Population growth in particular provides substantial fuel for economic dynamism; places without it face an uphill—but by no means impossible—climb.

Several rural states suffer neither from exceptionally low startup rates nor from exceptionally high firm closure rates. Instead, it is the *gap* between the two rates locally that signals a dynamism problem—notably in West Virginia, Mississippi, Arkansas, Alabama, New Hampshire, and Iowa.[30] With already relatively low rates of firm closures, boosting the firm creation rate is required to make sure these economies remain "above water" when it comes to entrepreneurship and the economic opportunity and local dynamism it fosters.

Another measure of economic dynamism is the share of a state's workforce employed in firms less than one year old. Here the Dakotas, both among the 10 most rural states, land in the top 10 for jobs in new companies, too. Wyoming is not far behind in terms of startup jobs and ranks in the top 10 nationwide in terms of both net in-migration and the rate at which workers turn over among firms, an important metric of economic resilience and input into productivity growth. Montana, Wyoming, and Idaho all have among the smallest shares of their population employed in old incumbent firms, suggesting that their economies are relatively young—and incumbent interests perhaps features less prominently on the economic (and therefore political) landscape.

At the end of the day, high rates of labor force participation signal an economy that's working well and working for working people. The top 10 states in terms of employed persons per share of the adult population are: North Dakota, Nebraska, Iowa, South Dakota, Minnesota, New Hampshire, Utah, Wisconsin, Kansas, and Vermont.

In general, rurality seems to be most disadvantageous when it comes to population growth (absent an economic boom such as drilling in the Dakotas) and in the sheer volume of turnover among companies—both openings and closings combined.

[30] EIG's analysis of Census' Business Dynamics Statistics data. Unless otherwise cited, all statistics cited in this section are from this source.

The mentality of self-help and initiative found in many rural areas is inherently entrepreneurial. We need to harness that energy and those natural inclinations to make sure that viable enterprises can start and scale wherever someone wants to try.

The Changing Face of Entrepreneurship

Much has been made of the potential of the Internet to provide rural areas with a new lease on economic life. While the Census Bureau's statistics on "non-employer businesses" (which capture sole proprietors and other independent workers) shows steady growth in urban areas but no real uptick in rural ones, evidence can be found elsewhere that the so-called "platform-enabled gig economy" has indeed opened up new avenues for entrepreneurial activity in rural America (provided a fast Internet connection is available, of course). As the expansion of traditional firms and business establishments has stalled in small counties, platform-enabled entrepreneurship is on the rise.

- According to Etsy's Seller Census, 28 percent of the platform's 1.7 million sellers live in rural communities, compared to 17 percent of non-farm business owners nationwide and 18 percent of the total population.[31]

- A recent report from eBay compiling statistics on their commercial sellers found that *new* sellers who started operations from 2010 to 2014 were significantly less geographically concentrated than the formal business establishments that opened over the same time (and which EIG analyzed in its "New Map of Economic Growth and Recovery" report). Furthermore, 32 of the 100 counties with the highest number and revenue of eBay commercial sellers per capita are rural counties—one of the very few lists on which you'll see small rural counties such as Essex County, VT; Clay County, NC; and Flagler County, FL score right alongside Santa Clara County, CA; New York County (Manhattan), NY; and Miami-Dade County, FL.[32]

- Thumbtack, a relatively new online marketplace for local services, has connected independent providers with customers in every county in the country bar one.[33]

- Upwork's Freelancing in America survey estimates that 18 percent of freelancers live in rural areas—roughly equivalent to the rural share of the population. The survey reinforces the fact that Internet connectivity is crucial to making sure that the "future of work" is open to rural residents: 66 percent of all freelancers said that the amount of their

[31] "Crafting the Future of Work: The Big Impact of Microbusinesses." Etsy (2017).
[32] "Platform-enabled Small Businesses and the Geography of Recovery: Evidence of More Inclusive New Enterprise Growth on eBay than Reflected in Official Statistics." eBay (January 2017).
[33] Information provided by Thumbtack, April 21, 2017.

work done online in the past year increased and 54 percent obtained jobs online in 2016, up from 42 percent two years prior.[34]

The nature of entrepreneurial behavior in rural areas is inherently different than more densely populated areas, but the penchant often runs deep. In certain rural areas, especially in the plains, self-employment and multiple job-holding already run high.[35] Taking advantage of the reach and scale enabled by web-based platforms should be a natural step. However, the rise in platform-enabled opportunities, while welcome, is not likely to provide an ample substitute for a missing generation of new firms in much of rural America. This is because new firms have a greater impact in terms of hiring, innovation, and a host of other economic activities.

Looking to the Future: What is a "connected" rural economy?

As mentioned at the outset, highly-connected local economies are those best positioned to thrive in the new economy. The most important economic divide today is not between urban and rural but rather between connected and isolated. For example, Headwaters Economics, a research organization based in the Mountain West, classifies western counties according to three categories: those that are metropolitan, those that are rural but connected via daily air service to a larger hub, and those that are rural and isolated. Rural but connected economies have higher median incomes, lower income volatility, more high-wage service jobs, lower median ages, higher population growth, and greater educational attainment than their isolated peers.[36]

Thus, policymakers should be focused on policies that help to strengthen and expand connectivity in all its different forms for rural communities. Modernizing and repairing U.S. infrastructure is one obvious example. So too is ensuring rural entrepreneurs have better access to capital, especially via new platforms like crowdfunding and smart regional incentives that avoid hollowing out the local tax base. Another priority should be closing the "digital divide" between urban and rural areas: 39 percent of rural Americans lack access to broadband compared to only 4 percent of urban Americans.[37]

Access to global markets is another key element of connectivity. Trade and foreign direct investment (FDI) support millions of American jobs, including a great many in rural and small

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[34] "Freelancing in America: 2016." Upwork and Freelancer's Union commissioned study conducted by Edelman Intelligence (October 2016).
[35] Hipple, Steven and Laurel Hammond, "Self-employment in the United States." U.S. Bureau of Labor Statistics (2016) and U.S. Bureau of Labor Statistics Multiple Job Holdings in States in 2015, 2017.
[36] Headwaters Economics, "Three Wests: The Impact of Access to Markets on Economic Performance in the West," 2015.
[37] "2016 Broadband Progress Report." Federal Communications Commission (2016) and Karsten, Jack and Darrell West, "Rural and Urban American Divided by Broadband Access." (Brookings Institution, 2016).

town communities.[38] These "insourcing" jobs tend to be higher-paying and disproportionately linked to manufacturing and innovation—in other words, exactly the kind of jobs rural communities need. In Alabama, for example, over 80 percent of all jobs in foreign-owned establishments are located outside of the Birmingham metropolitan area.[39]

Connectivity extends to human capital, as well. Physical and digital infrastructure support flows of people and ideas, but cognitive openness is important too. Workers need skills that are up-to-date and in-demand. Entrepreneurs need to be plugged in to broader market trends. Workers need to be unencumbered in their ability to move to areas of greater economic opportunity—urban as well as rural. Community colleges and workforce training programs need to support life-long learning. Universities, embedded in national and global knowledge networks, will be linchpins of local economic development efforts. The economy is evolving in directions that demand more human capital; rural areas have significant ground to make up if they hope to thrive.

Conclusion

People are generally quite bad at predicting the future. This includes, unfortunately, policy experts. For example, leading thinkers in the postwar period were actually worried about what they believed to be a looming crisis of too much leisure time as the need for long work hours diminished. In 1959 the Harvard Business Review bemoaned that "boredom, which used to bother only aristocrats, had become a common curse."[40] Few today would say too much leisure is a defining characteristic of American life. More recently, the rise of the Internet was supposed to flatten the world and make location irrelevant; instead, the relationship between geography and opportunity appears more profound than ever.

These examples illustrate a fundamental truth: we don't know what the world of the future will look like. Rather than trying to predict or prescribe the economy of the future, our goal should be to ensure the broader economy remains as flexible, dynamic, and adaptable as possible. Rural communities no doubt face challenges—most importantly, the challenge of adapting to an economy that increasingly rewards density and knowledge-based industries. It is important not to overstate or misinterpret those challenges. Rural communities also often have advantages that can help level the playing field, including quality of life, affordable and available land, access to natural resources, and strong social cohesion. Matching those local advantages with a national policy environment that promotes connectivity is essential. There is no substitute, however, for local leadership or local solutions. Therefore, an element of caution is needed when considering place-based federal solutions. When designed well, they can be of tremendous benefit. But even the best place-based policies will be of limited use absent a

[38] "Top Level Facts: Operations of Majority-Owned U.S. Affiliates of Foreign Multinational Enterprises August 2016 BEA Release." Content First, LLC.
[39] Saha, Devashree, Kenan Fikri, and Nick Marchio, "FDI in U.S. Metro Areas: The Geography of Jobs in Foreign Owned Establishments." Brookings Institution and JPMorgan Chase & Company (2014).
[40] Rosen, Rebecca, "Money-Rich and Time-Poor: Life in Two-Income Households." (The Atlantic, 2015).

broad-based, pro-growth policy framework. In crafting such an agenda, we must avoid and eliminate policies that—even when well intentioned—tilt the balance too far in favor of guarantees versus opportunities; incumbents versus upstarts; today's jobs versus tomorrow's; or certainty versus healthy risk-taking.

Thank you and I look forward to answering your questions.

Chairman RISCH. Thank you much.
Mr. Hobart.

STATEMENT OF JIM HOBART, CO-FOUNDER, ALPACA DIRECT, LLC, HAYDEN, ID

Mr. HOBART. Good morning, Chairman Risch, Ranking Member Jeanne Shaheen, and members of the Committee. Thank you for the opportunity to testify today.

I am James Hobart, co-owner of Alpaca Direct, and I am honored to share my experience as a small business owner in north Idaho and how we transformed my daughter's 4–H project with pet alpacas into a thriving click-and-mortar business serving over 100,000 customers in 30 countries.

For my wife, Kelley, and I and our two children, there is nothing more important than a close-knit family and community. When our daughter was asked if she could raise alpacas on our ranch in 2005, we discovered many of the unique benefits of alpaca fiber, and wanted to share these products with others.

We opened Alpaca Direct and a companion online store to share the durable, eco-friendly yarn with knitting and apparel enthusiasts all over the world. For a small business in north Idaho, our sales demographics may surprise you. Ninety-two percent of our annual sales are online. Our customers are 85 percent female, 75 percent of them are 45 and older, and 30 percent are 65 and older. In the U.S.A., our top four selling states are New York, California, Texas, and Florida.

We have used the internet and social sites like Facebook, Pinterest, and Google+ to stitch together a modern click-and-mortar business. We rely on web search advertising and social networks to find customers who will be interested in our products, and we start conversations with them to better understand their needs.

Today's advertising platforms like Google AdWords and Facebook allow us to be very specific in utilizing our advertising dollars and measuring the ROI on our marketing efforts. YouTube allows our staff to share knitting techniques and product reviews with our global audience. There are people all over the world who do not have a local yarn shop and we want to become their local yarn shop, even though we are based in north Idaho. With online social tools we can do that, and they have become part of our community.

You know, creating a loyal customer is no different in the online world than in the physical world. Here are seven key principles we established for our business. Listen to our customers and create conversations with them versus talking at them. Treat our employees and customers as part of our family. Build trust by selling great products we can stand behind. Deliver great customer service every day. Do what is best for the customer and that will be best for our company. Offer the best products at competitive prices by operating efficiently. And continuously evolve to serve our customers.

The internet has allowed us to amplify our message and openly share these principles, and I am happy to say our customers have responded by telling us—and telling others actually—having over 51,000 Facebook fans, and it grows daily. The amplification and transparency effect of the internet is a huge benefit for small businesses who do what they say and live by their principles.

We are a small business in a small town. For hundreds of years, in a small town, to thrive you needed to treat your customers well since they were your neighbors. Now the internet has made this type of transparency true for everyone, not just the small town and not just small businesses. When you do not treat your customers well, everyone knows, and everyone is your neighbor, as we have witnessed so clearly in recent weeks with some of America's largest companies.

The growth we have enjoyed has not come without challenges. Two key areas we feel need attention are improved internet access and affordable health care for our employees.

Essentially, the on-ramps to the digital highway need more access for rural areas. Our competitors in large cities are operating on the equivalent of a 12-lane freeway while our access to that freeway is like a worn-out toll road, with potholes, maintained by a single-source provider with little incentive to make improvements. This limits our ability to livestream events with our customers and limits their engagement with us. In the very near future, this will become a differentiator for our ability to deliver competitive service.

As for health care, we all know the issues around high costs and limited access. Despite this, we are blessed to have phenomenal employees who love their jobs and truly care for our customers. Most of our employees are part-time moms. They drop off their kids in the morning and pick them up in the afternoon, with an average commute of about five minutes. We recently lost a great bookkeeper. She worked for us for five years but had to take another job at a larger company just to get health care for her husband. He was a local plumber in his late 50s and needed a hip replacement.

Entrepreneurs have realized the world is flat and you can run your business from where you want to live, not where you must live. In our case, we discovered Coeur d'Alene, Idaho, on vacation back in 2005, and left Silicon Valley for a simpler life and a more efficient place to run our business. This trend will continue to play out in small towns across America, and I want to thank you for giving me the opportunity to share my perspective on how small businesses can grow and thrive in today's internet economy.

[The prepared statement of Mr. Hobart follows:]

U.S. Senate Committee for Small Business & Entrepreneurship

"Growing Small Businesses in Rural Areas" Hearing, April 26th, 2017

TESTIMONY
James E Hobart
Alpaca Direct LLC

Good Morning.
Chairman Risch, ranking member Jeanne Shaheen and members of the committee thank you for the opportunity to testify today. I am James Hobart, Co-Owner of Alpaca Direct, and I am honored to share my experience as a small business owner in North Idaho and how we transformed my daughter's 4H project with pet alpacas into a thriving 'Click and Mortar' business serving over 100,000 customers in 30 countries.

For my wife, Kelley and I and our two children, nothing is more important than a close-knit family and community. When our daughter asked if she could raise alpacas on our ranch in 2005, we discovered the many unique benefits of alpaca fiber and wanted to share these products with others. We opened Alpaca Direct and a companion online store to share this durable, eco-friendly yarn with knitting and apparel enthusiasts all over the world.
For a small business in northern Idaho, our sales demographics may surprise you. 92% of our annual sales are online. Our customers are 85% female, 75% of them are 45+, and 30% are 65+. In the USA, our four top selling states are New York, California, Texas, and Florida.

We have used the Internet and social sites like Facebook, Pinterest and Google+ to stitch together a modern 'Click and Mortar' business. We rely on web search advertising and social networks to find customers who will be interested in our products and start conversations with them to better understand their needs. Today's advertising platforms like Google AdWords, and Facebook allows us to be very specific in utilizing our advertising dollars and measuring the ROI on our marketing efforts.
YouTube allows our staff to share knitting techniques and product reviews with a global audience. There are people all over the world who don't have a local yarn shop. We want to become their local yarn shop even though we're based in northern Idaho. With online social tools, we can do that, and they have become part of our community.

Creating a loyal customer is no different in the online world than in the physical world. Here are seven key principles we established for our business.

1. Listen to our customers and create conversations with them vs. talking at them
2. Treat our employees and customers as part of our family
3. Build trust by selling great products we can stand behind
4. Deliver great customer service...every day
5. Do what's best for the customer, and it will be what's best for us as a company
6. Offer the best products at competitive prices by operating efficiently
7. Continuously evolve to serve our customers

The internet has allowed us to amplify our message and openly share these principles. I'm happy to say our customers have responded by telling others resulting in over 51,000 active

Facebook fans and it grows daily. The amplification and transparency effect of the internet is a huge benefit for small businesses who do what they say and live by their principles.

We're a small business in a small town. For hundreds of years, in a small town, to thrive you needed to treat your customers well since they were your neighbors. Now the internet has made this type of transparency true for everyone, not just the small town and not just the small businesses. When you don't treat your customers well, everyone knows, and everyone is your neighbor as we have witnessed so clearly in recent weeks with some of America's largest companies.

Challenges

The growth we've enjoyed has not come without challenges. Two key areas we feel need attention are improved internet access and affordable healthcare for our employees.

Essentially, the on-ramps to the digital highway need more access for rural areas. Our competitors in larger cities are operating on the equivalent of a 12-lane freeway while our access to that freeway is a like a worn-out toll road, with potholes maintained by a single-source provider with little incentive to make improvements. This limits our ability to live-stream store events with our customers and limits their engagement with us. In the very near future, this will become a differentiator for our ability to deliver competitive service.

As for healthcare, we all know the issues around high costs and limited access. Despite this, we are blessed to have phenomenal employees who love their jobs and truly care for our customers. Most of our employees are part-time moms who drop their kids off at school and pick them up in the afternoons with an average commute of about 5 minutes. We recently lost a great bookkeeper who worked five years for us but had to take another job with a large company just to get healthcare for her husband who was a local plumber in his late 50's and needed a hip replacement.

We like to think we're making an impact on our community. Our weekly knitting groups fill our store with knitting enthusiasts who share their skills and create lifelong friendships. They are constantly knitting for specific causes and charities to help veterans and people in need. Our alpaca socks keep our customer's feet warm all winter better than any other socks on the market. We get customer comments every year thanking us for the gift of warm feet during cold winters.

Entrepreneurs have realized the world is flat and you can run your business from where you want to live, not where you must live. In our case, we discovered Coeur d' Alene, Idaho on vacation back in 2005 and left Silicon Valley for a simpler life and a more efficient place to run our business. Burt Rutan a famous aerospace designer and 1st winner of the Space-X award recently made Coeur d' Alene his home along with many other entrepreneurs and technologists. Even the co-founder of C-Span Robert Titsch has discovered our town and lives nearby. This trend will continue to play out in small towns across America, and I want to thank you for giving me the opportunity to share my perspective on how small businesses can grow and thrive in today's internet economy.

Chairman RISCH. Thank you, Mr. Hobart.
Mr. Riley.

STATEMENT OF ROB RILEY, PRESIDENT, NORTHERN FOREST CENTER, CANTERBURY, NH

Mr. RILEY. Thank you, Chairman Risch, Ranking Member Shaheen, and members of the Committee.

My name is Rob Riley and I serve as the President of Northern Forest Center, a nonprofit organization which works to crate economic opportunity and community vitality from healthy working forests in the northern parts of Maine, New Hampshire, Vermont, and New York. We work across a 30-million-acre area with a population of two million people, to help businesses and communities adapt to a changing economy.

Over a century ago, the Northern Forest region supplied the timber that built East Coast cities and gave birth to the modern pulp and paper industry. Vertically integrated timber and paper companies literally built communities to support their mills and owned millions of acres of land. With good wages and—excuse me—wages and jobs for almost everyone, our rural communities thrived through the 1970s.

In the 1980s and 1990s, however, globalization and changing markets resulted in nearly 50 Northern Forest communities losing their forest products mills and tens of thousands of manufacturing jobs. Mill towns like Berlin, New Hampshire, have dropped from 10,000 people in population to 5,000. Median household incomes have not kept up with the Nation as a whole. Some places are successful at attracting tourists and second homeowners but not new residents, particularly young people and families, and businesses that can maintain a thriving community or reinvigorate a waning one.

However, there is a lot of reimagining, reshaping, and redevelopment underway, and there is a lot to build on. We have a beautiful region full of small communities and iconic landscapes—the Adirondacks, the Green Mountains, the White Mountains, the North Woods of Maine. Our challenge is to figure out how to use the natural resources in new and sustainable ways. We need to develop new ideas for what it means to be a forest-based economy.

Federal agencies and business development programs play a crucial role as rural places across the country adapt to changes in their historic economies and work to take advantage of new economic opportunities. These include the SBA's Small Business Development Center and the USDA Rural Business Cooperative programs; the New Markets Tax Credit Program supported by the U.S. Department of Treasury; Manufacturing Extension Partnership; and in our region, Northern Border Regional Commission.

Let me give you an example of how these programs have worked together to help a small business located in Lancaster, New Hampshire. Ten years ago, Bill Rutherford and his wife, April, decided to move their family from New Jersey to this North Country town and started NorthWoods Manufacturing, which manufactures custom cabinetry and kitchens.

To pursue his entrepreneurial dream and succeed in a rural community, Bill used several Federal programs, made available through local nonprofit organizations, to secure business and specialized assistance to overcome obstacles: ensure quality and consistent broadband connection for his home for his wife to work remotely and connect to business in regional markets, extending as far as New York City; financing from a community development financial institution, the Northern Community Investment Corporation, to assist in growth and product development; tailored business counseling from the Small Business Development Center. And, finally, we, the Northern Forest Center used a U.S. Department of Agriculture Rural Business Development Grant to bring in specialized lean manufacturing assistance to help the company to streamline their manufacturing space and processes.

Since this support was provided, the business' revenues have increased over 20 percent, with a goal this year of an increase of 60 percent revenues. It is a good return on investment.

In addition to carrying the responsibility of 12—of employing 12 residents, Bill is also deeply involved in his community, volunteering, among other pursuits, as a leader of his son's scouting troop.

Bill and April came looking for a community they wanted to live in and brought their entrepreneurial skills with them. We need to enhance the programs that help the small business and countless others, and we define ways to expand their reach and effectiveness in rural America.

Cutting rural business development programs, which the President has proposed doing, to all of those that I previously mentioned, and more, reflects a lack in knowledge around the effective deployment of these programs, and will have a direct and seriously negative impact on struggling rural communities and the small businesses that help them survive and grow.

Rural places have a lot to offer, of course, and the assets include natural and cultural amenities, but also the private sector. Leadership in these communities is critical, but investment tends to follow the public sector and is usually only leveraged by matching funds, loan guarantee, or other incentives. Instead of cutting these programs we should identify ways to improve them.

To that end, the Center is partnering with the Aspen Institute and the U.S. Endowment for Forestry and Communities to form the Rural Development Innovation Group, a group of 12 grounded practitioners guided by our experiences in rural places across the country. This group believes that effective rural investment programs should care—should share two common characteristics. One, programs should invest in people, ideas, and markets, not just projects; and, two, programs should offer investment that is appropriately scaled for modern rural realities and seek diverse outcomes that are rooted in the rural experience.

The Small Business Committee, along with the Agriculture Committee and other congressional stakeholders have a strong legacy in supporting the essential programs that have sustained an entrepreneurial fabric in this country. We look forward to working with you to ensure that rural small businesses have the certainty, and that the tools they need to succeed in this ever-changing economy are there for them, when they need them, and by the organizations they trust.

Thank you.

[The prepared statement of Mr. Riley follows:]

Statement by Rob Riley

President, Northern Forest Center
Concord, NH

Before the Committee on Small Business & Entrepreneurship United States Senate

"America's Rural Opportunity: Unlocking entrepreneurial potential to create jobs, leverage investment and steward the landscape"

April 26, 2017

Thank you, Chairman Risch, Ranking Member Shaheen and members of the committee. My name is Rob Riley and I serve as President of the Northern Forest Center, a non-profit organization which works to create economic opportunity and community vitality from healthy working forests in the northern parts of Maine, New Hampshire, Vermont and New York. We work across a 30-million-acre area with a population of 2 million people to help businesses and communities adapt to a changing economy.

Over a century ago, the Northern Forest region supplied the timber that built east coast cities and gave birth to the modern pulp & paper industry. Vertically integrated timber and paper companies literally built communities to support their mills and owned millions of acres of land. With good wages and jobs for almost everyone, our rural communities thrived through the 1970s.

Things began to shift in the 1980s and 90s as globalization and changing markets spurred the forest products industry to consolidate.

Nearly 50 Northern Forest communities have lost their forest products mills and tens of thousands of manufacturing jobs. Service sector jobs, particularly in tourism, have filled some of the void, but they usually don't offer the consistency of wages or job security that manufacturing once did.

Today our region is dealing with population decline or stagnation. Mill towns like Berlin, NH, have dropped from 10,000 people to 5,000. Median household incomes have not kept up with the nation as a whole. Some places are successful at attracting tourists and second-home owners, but not the new residents – particularly young people and families – and businesses that can maintain a thriving community, or reinvigorate a waning one.

However, there is a lot of reimagining, reshaping and redevelopment underway. And there is a lot to build on. We have a beautiful region full of small communities and iconic landscapes- the Adirondacks, the Green Mountains, the White Mountains, the North Woods of Maine. Our challenge is to figure out how to use the natural resources that have always sustained this region in new and sustainable ways. We need to develop new ideas for what it means to be a "forest-based economy."

More broadly, we know the following to be statistically true and anecdotally supported about rural communities:

- Rural communities were hit hard by the Great Recession and have been slower to recover than more urban areas.
- The key to addressing poverty, providing livable wage jobs and unlocking the potential of these areas is small business, which is now the predominant backbone of rural communities.

- For small businesses in rural areas to succeed, we need to understand and focus on their unique challenges and think differently HOW we deploy our resources. Challenges include: infrastructure, including transportation/water treatment; broadband (both the 'last mile' and wireless deployment); access to appropriately priced capital and financing, specific financial management and business development services to business owners; development of value-added rural industries (including manufacturing, natural resource businesses, and outdoor recreation and tourism); and education and training to build and attract a skilled workforce.
- The federal government and its various agencies are a critical partner to help rural communities meet these challenges. There are a number of programs that exist, that combined with local and state public investment and private capital and philanthropy, truly make a significant difference in our communities.

Federal agencies and business development programs play a crucial role as rural places across the country adapt to changes in their historic economies and work to take advantage of new economic opportunities. In rural places like New Hampshire opportunity exists and yet we seek strong public-private partnerships to offer complementary programs that meet different small business needs, including:

- Business and entrepreneurial development through technical assistance programs – such as the SBA's Small Business Development Center and USDA Rural Business Cooperative programs
- Innovative tools to leverage traditional financing – such as the SBA 504 loan guarantee program and the New Markets Tax Credit Program supported by the US Department of Treasury Community Development Financial Institutions Fund
- Support to retool rural manufacturing for new markets and opportunities assistance through the Manufacturing Extension Partnership
- Programs that support infrastructure for community and economic development such as the US Department of Agriculture Rural Business Community Facilities programs, the Northern Border Regional Commission, and HUD Community Development Block Grants.
- Grant and loan dollars to build and rebuild community-scale infrastructure such as broadband, transportation and water and sewer projects.

Rural Entrepreneurs

Let me give you an example of how these programs have worked together to help a small business located in Lancaster, New Hampshire. Ten years ago, Bill Rutherford his wife, April, decided to move their family from New Jersey to this rural town and started NorthWoods Manufacturing, which manufactures custom designed cabinetry and kitchens. It is important to recognize that modern rural business creation stories like this one can only come to fruition with access to high speed and consistent broadband, which Lancaster had.

To pursue his entrepreneurial dream and succeed in a rural community Bill used several federal programs—made available through local non-profit organizations—to secure business and specialized assistance to overcome obstacles:

- Ensure quality and consistent broadband connection for his home for his wife to work remotely and connect his business to regional markets extending as far as New Jersey
- Financing from a CDFI—Northern Community Investment Corp— to assist in growth and product development

- Tailored business counseling from the Small Business Development Center
- And finally, the Northern Forest Center used a US Department of Agriculture Rural Business Development Grants to help Bill with refinancing and bring in specialized lean manufacturing assistance to help the company to streamline their manufacturing space and processes, resulting in significant avoided capital cost and growth in revenue.

Bill is an active member of his community. In addition to volunteering as a leader of local scouting troop for his son, Bill carries the responsibility of employing 12 residents and knows that the quality of the job he provides to his employees is in their and his best interests! Bill and April came looking for the community they wanted to live in and sought entrepreneurial opportunities. His success is due to his own persistence, commitment, smarts, and his ability as a small business owner to pursue and find assistance to fill the gaps in his knowledge.

Across the state border in Gilman, VT a pair of entrepreneurs are close to breaking ground on a new manufacturing facility – Kingdom Pellets – that will manufacture wood pellets for local, renewable fuel to heat homes, businesses, schools and more. Tabitha Bowling is a relative new comer to the Northeast Kingdom of Vermont but relocated from Washington DC with her son and wife whose family goes back for generations in the region. Tabitha saw an opportunity and harnessed her business background to help the region transition to modern, automated, efficient technology using wood to heat homes. She also saw a need to tap into the regional economic development tool box:

- Various state agencies that provided technical assistance, financing and regulatory guidance;
- USDA-Rural Development, which guaranteed the lead loan with a local bank.
- And through the Northern Forest Center, grant support from USDA Rural Development Rural Business Development Grants to assist with legal and engineering work required to secure construction financing.

Once the mill is in full operation, Tabitha expects to produce 22-23,000 tons of pellets a year, drawing on wood harvested within 30 miles of the mill. She'll ultimately employ 21 people directly and support more than 60 additional jobs in the forest supply chain. Kingdom Pellets will be the town's largest employer and one of the larger employers in the county.

The Northern Forest Center's role has gone beyond direct assistance to Tabitha. We working to make sure that there is market demand for her product by helping to install wood pellet heating systems in local community facilities to demonstrate their use, effectiveness, and economic benefit. This critical market development for new technologies, with financial support from the Northern Border Regional Commission, US Department of Agriculture Rural Development, the Economic Development Administration and substantive philanthropy capital, has been critical to help create this new economic opportunity for the region.

Bill and Tabitha are just two examples of the many small businesses owners who are key to the long-term health of Rural America.

Investing in America's Rural Opportunity

We need to enhance the programs that helped this small business and countless others – and we need to find ways to expand their reach and effectiveness in rural America. Cutting these programs -- which the President has proposed doing to some key ones, like many US Department of Agriculture Rural Development programs, the Economic Development Administration, the Northern Border Regional Commission, the Community Development Financial Institutions Fund and the Community Development Block Grant program – reflects a lack of knowledge around the effective deployment of these programs and will have a direct and seriously negative impact on struggling rural communities and the small businesses that help them survive and grow.

The need in rural for additional sources of capital is especially acute – there are fewer investors, longer distances to market and aging infrastructure. Rural does have its assets, however, upon which suburban and urban populations rely and that we should recognize, celebrate and seek to enhance. Rural:

- Is both the home and the steward of abundant natural resources on which the American economy depends, and through which the American spirit is nourished.
- Is the primary domestic source of food and energy consumed by all of America – with the potential to supply even more and reduce dependence on outside sources.
- Is critical to the nation's ability to provide clean water through healthy forests and sustainable agriculture.
- Is the locus for the manufacturing, energy, agriculture and forestry sectors that drive much of the wealth generation at the foundation of America's economy.
- Shelters nearly one-fifth of America's population – and raises more than that share of its children.
- Is called home by a disproportionately larger share of America's current combat forces as compared to urban America – based on Iran and Afghanistan casualty rates.
- Is diverse in its people; people of color accounted for three-quarters of rural and small town population growth since 2000.
- Is increasingly a place where immigrants settle, start and grow new businesses that create local jobs.
- Provides a willing and able testing ground for policy and practice innovation that can be adapted in cities, towns and regions nationwide.

The private sector, of course, plays an important role in rural places, as does philanthropic investment and direct business investment. These two sources, however, tend to follow public investment and in many cases can only be leveraged by a loan guarantee or other incentive from the public sector. Without this public-private leverage, deal flow is slow to develop and emerging businesses and entrepreneurs don't have the tools they need to navigate the many hurdles facing sole proprietors and self-employed people.

Current programs need to be accountable and justified, but in my experience, they are not abused, wasteful or duplicative. They actually reflect the spectrum of needs that must be addressed to help spur innovation, create jobs and provide livelihoods to people and communities seeking a better tomorrow.

Instead of cutting these programs, we should identify ways to improve them so that we can maximize taxpayer support, leverage private sector resources, and enhance rural communities.

Rural Development Innovation Group

To that end, the Northern Forest Center has recently partnered with the Aspen Institute and the US Endowment for Forestry and Communities to form the Rural Development Innovation Group, a group of grounded practitioners guided by experience in rural places across the country. We have identified shared realities and principles that seek to make federal tools the most effective they can be in their service to rural entrepreneurs and small businesses.

The Group's principal goals are to accelerate the adoption, adaptation and impact of innovative rural development strategies and convene key innovators to increase leadership, learning and dissemination to the field.

In 2017, the Rural Development Innovation Group is hosting a six-part series, *America's Rural Opportunity*, to explore innovative and proven approaches to rural economic development. In tandem, the group is developing new partnerships to turn our proven ideas into better opportunities for rural places via federal policy and philanthropic strategy.

Based on our experience working in rural places, the group believes that effective rural investment programs should share two common characteristics: (1.) They invest in people, ideas, and markets, not just projects; and (2.) they offer investment that is appropriately scaled for modern rural realities and seeks diverse outcomes that are rooted in the rural experience. Details are as follows:

Innovation is driven by people, ideas and markets.

- Investment in entrepreneurial people is as important as capital investment. Many programs provide capital for specific business transactions, but few support the other tools necessary for entrepreneurial success. Just as in venture capital, investing in enterprising people is critical to build competency in rural places, which must dig deeper into their talent pool to fill leadership positions.
- Capitalizing on market opportunities requires integrated and collaborative solutions. Because they wear multiple hats in the community, rural people are naturally resourceful. However, the "project" funding available to rural places does not allow the flexibility they need to work in integrative, systemic ways to achieve results that last.
- Regional approaches are required to effectively connect rural and urban markets. In geographically large rural places with small populations, assembling the critical mass of people, ideas, resources and connections needed for success often requires working across sectors and geographic boundaries.
- Community-centered intermediary organizations are essential to successful rural community and economic development. These organizations engage the community in developing visions and solutions. They provide the technical and financial support to conceive and complete complex initiatives.

Innovation requires investment scaled to modern rural realities.

- Short term investments will not yield desired long-term results. Many government and financial resources available to rural places miss this reality. Those who want lasting solutions must recognize the need to be patient investors committed for the longer term.
- The entry thresholds for investments often lock out rural players. Rural organizations often cannot operate at the numerical threshold – e.g., deal size, jobs created, population served – that investors require. For federal funding, meeting local match requirements can be a barrier to entry.
- Rural projects are often of a smaller scale than investors seek. Investors typically are looking for "scale" – large numbers and volume. In rural, a project's progress from its starting point is more important than its size. Indeed, well-structured rural investments can provide rates of return comparable to those in urban areas.
- Investors in rural must have a different expectation for return on capital. The expectations for return must go beyond financial to include a broader range of rural outcomes – natural, social,

economic and infrastructure – that are essential to building thriving rural-urban markets over time.

Use of existing federal programs is not without challenges as we continue to adapt to changing rural realities. As we partner with other analogous organizations nationally – to learn from each other, replicate innovative practices, seek business development opportunities and secure resources across landscapes – we are working to develop specific recommendations for changes in federal programs to make them more effective in rural places.

For example, we're in the process of drafting report cards for specific federal programs that support business development in rural areas and we grade the functionality of the program against the principles outlined above. In the case of the Rural Business Development Grant, we score the program high for its ability to invest in business capacity and those organizations providing technical assistance. We score it low because it is limited to businesses whose revenues are under $1 million. This rules out a vast number of businesses that could otherwise use assistance. These report cards will also provide recommendations, such as lifting that revenue cap to allow services to be provided to businesses with revenues under $2 million. In the coming months, we'll circulate these report cards to share our insight with decision makers seeking to sustain and improve programs that support rural business development.

In conclusion: The Small Business Committee, along with the Agriculture committee and other Congressional stakeholders, can help shape policies that provide the critical tools that serve the entrepreneurial fabric of this country. We believe that Rural America represents an opportunity, and we look forward to working with you to ensure that rural small businesses have the tools they need to succeed.

Thank you for your commitment to the business community and for providing opportunities to share this perspective from the Northern Forest. I welcome any questions the committee may have.

Rural Development Innovation Group

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Chairman RISCH. Thank you very much, Mr. Riley. In the forest industry, the loss of forest jobs certainly is not unique to your area. The West Coast has suffered a tremendous amount of loss.

My first year in the State legislature was 1975, and we had 44 operating sawmills south of the Salmon River, which essentially divides the State north and south. Those 44 mills were located in virtually any town of any size in southern Idaho. Today they are all gone. I think there is one left that is operating. And it was the source of employment for people in those towns, and now they are just flat gone.

So the challenges are there—there is no question about it—and it is the result of changes.

I want to talk for a minute about your perspectives on—each of you give me your thoughts on your perspectives on the advent of the internet and how it has affected small business. Mr. Hobart, you are in the internet—you use the internet as the heart of your business. We have all seen substantial changes, and now we are seeing it not only to small businesses but we are seeing it to large businesses. There is more of the big-box stores that are going to cave because of—in fact, some outright companies are going to fail because of the internet and people using the internet to purchase, as opposed to going to stores.

I would like to get your thoughts on the advent of the internet, what has happened, where we are, and where you think it is going.

Mr. Lettieri, I would like to hear from you first.

Mr. LETTIERI. That is a great question. Really important. So when the internet first became a big platform for commerce, I think one of the big expectations that folks had was that geography would become obsolete, that you could start a business anywhere and that this would level the playing field between urban centers and non-urban centers. And that is just not the case. That is not how it has played out. Mr. Hobart's example is a remarkable one, of what is possible in the age of the internet, coming from a rural community, but it is the exception and not the rule.

And so, in many ways, the internet has sped up the pace and the intensity of competition, which means that if you can do it from a rural community, anyone else can do it from a rural community too, and you are facing a much broader competitor pool, because of connectivity.

The other challenge, of course, is that between places that have really strong broadband and internet connectivity and those that do not, you see a clear dividing line of economic prosperity and opportunity, and so it has become a really important factor. But I just hasten to note that even in e-commerce, e-commerce in retail only represents a relatively small proportion of total sales. It is still in the low double digits, is my understanding. And so even something as transformational as that is still working its way through the system. We have not, I think, yet seen the full effect of what that is going to do to that industry. It just means that people need to be more—companies need to be more attuned to the adaptation that is required to keep pace, and that just was not true in the same way before the internet.

Chairman RISCH. Thank you. I appreciate your thoughts. It seems to me, though, that what I see in Idaho, particularly, is a lot of small businesses. As you said, it is the exception that you can do business from a rural area the same as you can anywhere else. The financial industry, people that are in the—that are trading commodities or trading equities, seem to be able to operate from anywhere. Of course, they have to have the high-speed internet or they cannot do that. But that seems to be more of an exception because there are a lot of those, I know, in Idaho.

Mr. LETTIERI. There are certainly certain types of businesses and models that work well remotely, but as a general rule in the economy, we have not seen a flattening. We have seen a concentration of economic activity in denser places, and that corresponds with the rise of the internet as an important platform for commerce.

Chairman RISCH. Mr. Hobart, your thoughts?

Mr. HOBART. Thank you, Chairman Risch. Well, first, one observation. Starting an e-commerce business today is probably a factor of 10 easier than it was even 10 years ago, so there is great opportunity for small businesses all over the United States to start up a business around their passion, and start selling online, and I think that trend will continue as the learning curve gets easier.

That said, as you mentioned, a lot of e-commerce businesses are, you know, supplanting the brick-and-mortar businesses today. But I firmly believe, in our experience, that the social experience of shopping is going to help small businesses like ours to succeed in the future. Where I talked about better internet access for us and our ability to engage our customers, it means a much more social experience with them. Imagine 5 or 10 years from now, where a customer somewhere else in the United States, can literally, virtually walk through our store and look at the shelves as if they are in the store. That is the vision that I want to make for our company, but we need the internet access for both them and for us to make that happen.

The other thing I would say is that we are a big partner with the Postal Service. They are our delivery partner. And I will be happy to say that in our area, in Hayden, they are a great partner. In fact, their delivery has been—has vastly improved over the 10 years—or 12 years, actually—that we have been in business, and now we can literally ship from Hayden, Idaho, to almost anywhere in the United States in about two to three days, so—and sometimes even less than that. So they have been a great partner, and having that rural partner in the USPS right up the street from us has been great.

Chairman RISCH. Thank you.

Mr. Riley.

Mr. RILEY. When I lived in your great State about 25 years ago now, the internet was just, you know, an idea. It seemed like an e-mail was just seeing the beginning. I would say there are a few different things now that are coming into play. Access is one. Does the fiber come to the place of business in a rural place? The second is affordability. It may be there, but to get that last not even mile, last few feet, is a critical challenge. And then as you talked about before, the upload/download speeds are inconsistent. So we face those every day in rural places, about actually accessing what is the digital highway here. You know, that is a challenge.

But I would say one of the businesses, particularly in the manufacturing space, that we are seeing, is that the ability to use the internet to interface with customers, real-time, to do custom design furniture and then deliver to the 70 million customer base within one day's drive of the Northern Forest is a game-changer to compete with imports. So our ability to provide that custom design type of piece is only there because of having high-speed internet available, and it is critical to our companies.

And I would say we are finding a lot of people who are relocating to small towns because they have the opportunity to work remotely, and they are contributing in significant ways. The example I shared before with NorthWoods Manufacturing, Bill's wife stayed with her job in New Jersey but worked remotely. She could not do that if not for high-speed broadband.

So I believe it has changed the ability of rural places to participate. It is not without its challenges, as I outlined, but I would say that the advent of the internet does allow rural places to participate in a different way, and also, I think, when people are in rural places, they like to be connected. So our ability to have wireless link and cell phone service, internet connection, is critical to people wanting to vacation and access the amenities of a natural landscape without being disconnected from their day jobs.

So both of those things are important for real-time, ongoing residents but also visitors to that place.

Chairman RISCH. Thank you, Mr. Riley.

Senator Shaheen.

Senator SHAHEEN. Thank you. Mr. Chairman, you talked about what you have seen in Idaho, in terms of the closure of the timber mills. We have seen a similar situation in New Hampshire, in northern New Hampshire. And one of those communities that has experienced that kind of closure has been a town called Groveton, which is in very northern New Hampshire. So they have been trying to think about how can they redevelop some of those closed mills. And they have a local investor, a man named Bob Chapman, who invested $15 million in the site, to attract manufacturing companies. But, unfortunately, the mill had neither water nor sewage.

So the town supported a $400,000 bond, which, for that small town, was a huge investment, and they did the bond so that they could get another $600,000 grant from the Economic Development Administration. And I got a letter from Bob Chapman who said that—and I am quoting him now—"These public/private investments in broadband internet and wireless cell service and water and wastewater infrastructure, as well as investments in transportation, education, and workforce, are all absolutely necessary to attract companies to move here and to put people to work."

And he continued that "cutting or eliminating the investment, like the EDA, the Northern Border Regional Commission, USDA Rural Development, and transportation projects would be particularly harmful to small businesses in rural areas."

Mr. Chairman, I ask unanimous consent to enter his statement into the record.

Chairman RISCH. Surely.

[The letter follows:]

CHAPMAN BUSINESS GROUP

Recycle Renew Redevelop

April 25, 2017

The Honorable Jeanne Shaheen
Ranking Member
Senate Committee on Small Business & Entrepreneurship
428A Russell Senate Office Building
Washington, DC 20510

Dear Ranking Member Shaheen,

I'm writing to you today on behalf of the Chapman Industrial Park, to submit a Statement for the Record, for the upcoming hearing on rural small business issues. Thank you for the opportunity to submit these comments.

The economy of the North Country has been hit hard by the closure of paper mills over the past two decades, but Groveton has had a particularly hard time regaining any economic footing. I never set out to build an industrial park at the paper mill site that I had been hired to clean up, but I couldn't walk away from a community that needed jobs so badly.

I have invested $15 million of my capital in this project and have been encouraged by a financial commitment of the townspeople, as well as public investments in the form of grants from the Northern Border Regional Commission, the Economic Development Administration, and Community Development Block Grants.

These public-private investments in broadband internet, wireless cell service, water and wastewater infrastructure, as well as investments in transportation, education, and workforce development, are all absolutely necessary to attract companies to move here and put people to work. We already have one company set up and manufacturing in a 73,000 square foot building and we have many other companies in looking at this site.

Cutting or eliminating important programs that make these investments – like EDA, the Northern Border Regional Commission, USDA Rural Development, and transportation projects – would be particularly harmful to small businesses in rural areas. We should focus on ways to enhance these programs and other ways to help leverage investment in rural communities and small businesses, including boosting small business lending and Increasing federal contracting opportunities for rural small businesses.

Please don't hesitate to reach out to me if you need anything else.

Sincerely,

Robt a Chapman SR.

Bob Chapman
Chapman Industrial Park

Senator SHAHEEN. And I know, Mr. Riley, you talked about that, because you are dealing with these kinds of communities and you see what a little bit of public investment can do to leverage private investment.

So can you talk about what we can do to ensure that both those programs can leverage the kind of investment that we are talking about and how we make communities aware of what is available, and what the impact would be if we eliminate all of those programs, which I just mentioned that are targeted for elimination in the President's proposed budget for 2018?

Mr. RILEY. Thank you, Senator. I think what is—what I need to say first with these communities is that they have skin in the game. They are interested in their own investment. They are looking at leverage opportunities. In a State like New Hampshire, we have very little State resource that goes into these programs, but the towns—and here is an entrepreneur that is clearly committed to the future of his enterprise and to that community, and I do not believe that he is from Groveton. I think he came from another community—saw the opportunity there, and the need, and invested in that site.

In some cases, Federal programs are criticized for being perceived as duplicative. Well, we look at this as a broad toolbox that serves a number of different sources and uses, from business term, people might want to use. EDA funds, for example, only cover certain portions of a project. In this case, economic adjustment programs are critical to allow for studies and assessments to be done on certain sites.

CDBG, Community Development Block Grants, for example, are important to bring water and sewer and other infrastructure onto the site. Northern Border Regional Commission, a Federal commission analogous to the Appalachian Regional Commission in our region, brings the ability to invest in capacity, which is clearly critical for that business itself to run, and for support organizations to help him and others really prosper on that site.

So those rural development programs, the Rural Business Development Grant, the Intermediary Relending Program, a whole other cast of rural development programs, are a critical toolbox to allow entrepreneurs to build out their businesses and access the markets that are within that region. So it is a multi-tiered opportunity here to return on the investment that the public sector has to offer.

And I do have to say that, on other pieces, that you go into New Hampshire and people know about these funds, and people have a high level of—what is the word I am looking for—of wanting to make sure that it is done right. They know these are visible, they know that the Senator will come by, and they want them to succeed, and they do their absolute best to leverage the other types of resources that are available, and we really pride ourselves in the region of being proper stewards of public money.

Senator SHAHEEN. I think that is very true, and thank you. I think, again, as we talk about rural areas of the country, there is a real pride that people have in what they are doing, and making sure that people see that and appreciate the commitment that individuals have.

Mr. Lettieri, you talked about the uneven recovery between rural America and urban America, and I was particularly struck by your point that while we have not necessarily seen businesses in rural America close at greater rates, we are not seeing the new start-ups come in to replace the ones that do close.

So as we think about what we can do at the Federal level, through the Small Business Administration, through policy, to help encourage those new start-ups, what kinds of things do you think are important for us to think about?

Mr. LETTIERI. Thank you, Senator. There are two broad categories I would lay out. One is that national policy environment. What does our tax code look like? What does our regulatory environment look like? What does our infrastructure look like? How are we investing in basic research? All of those things are linked, and where there is a strong Federal role to play, if we are not playing it, the problem is getting worse and it gets more expensive to reverse, more challenging to reverse.

Then there is the more micro kind of interventions we can do where there are market failures in policy. One of those is access to capital, clearly. So you see a regionalization of access to capital that is really harmful and challenging for entrepreneurs outside of major hubs. And so that is an area where I think public policy can play a really important role in a market-based way, but nudging investors into different areas by helping to change the risk profile of those investments and also leveraging public and private co-investments, as had been mentioned earlier. I think that is—there are some models that we know work.

But in all of that I think it is important to remember that organic, ground-up type of solutions are going to be the most important of all, and so where can the Federal Government come in and support a race to the top of what we know is successful in certain local communities, and help to export that to other areas. I think that is a really important primary goal to have in mind.

Senator SHAHEEN. Thank you. Thank you, Mr. Chairman.

Chairman RISCH. Thank you, Senator.

Senator Ernst.

Well, it is—we are doing early bird first. Okay, so you guys figure it out.

Senator ERNST. Go ahead.

Okay. We will arm wrestle. Okay. I will make mine brief. How is that?

Thank you. I appreciate it. Thank you very much for being here and for your testimony, and thank you to our Ranking Member and our Chairman for holding this discussion. Mr. Lettieri, earlier this week, one of our local publications in Iowa ran a story titled "Workforce Worries Keep Iowa Manufacturers Up At Night," and it is a very timely article, considering the topic that we are discussing today. The article reiterated what I routinely hear from businesses as I am out on the 99-county tour in Iowa. Their growth is constrained by workforce limitations. The jobs are there, they exist, but it is increasingly hard to find those qualified applicants. And in Iowa, we have great schools and a favorable work climate, but we still struggle with this particular issue.

And what are your thoughts on what can be done by the private sector? What can our high schools and colleges be doing to help with this workforce shortage? And what can the government do to address this issue?

Mr. LETTIERI. Thank you, Senator. A similar article just came out on New Hampshire, actually, a tight labor market, regionally and nationally, is making it challenging for employers and places like your State, places like New England, to find enough talent to fill job openings that are there. This is a real problem for employers, and you hear this more and more around the country.

So one thing that we see that works is where mayors, in particular, are really engaged in convening local businesses and local community college and vocational schools to make sure that these skills that they are teaching actually match up with the opportunities that emerge on the other side locally. And you would think this is a very simple thing, but many communities are just not putting enough effort into making sure those dots connect. It is really not magic. It is just you have to go through the exercise of doing that, and being thoughtful in closing that information gap for people who want to increase their skills or get a higher education of some type. Making sure that what we are teaching them and what we are funneling them into actually has opportunity on the other side, is the first step.

And so that is really much more a local stakeholder and local private sector type of challenge than it is nationally, but if we saw more of that, and if we saw more models that took that head-on, I think we would be able to close that gap quite a bit.

The other thing that has to be mentioned is we have a slowing population growth rate. We are currently the lowest—slowest period of population growth U.S. has seen since the Great Depression. And so that is going to further constrict the labor forces. We see the prime age workforce is only growing at something like 0.1 percent. So there are only a couple of ways to counteract that. One is people have to have more babies, or we have to let more people who want to be here, who have the skills, come here.

And so both of those are ways that we can approach dealing with that challenge and opening up the labor market for folks who want to be here, who have the skills, and who match with what employers are trying to do, in terms of their own hiring.

Senator ERNST. Thank you, and just a comment. Mr. Riley, you addressed the internet challenges that we have, and I just want to express that is an issue that I hear about all the time, as well, in Iowa. And Mr. Hobart, you experienced this as well, challenges with internet access and broadband.

And I just want to share a quick story about a constituent. She was in an area that did not have good internet access, a rural area. She lived on a farm, was trying to start a home business. And exorbitant costs to get satellite dish internet. She, in the evening, would sneak into town, the little rural community, and sit outside a local business and kind of pull off of their internet.

So, you know, it is a concern out there. It is something that we need to address for our small businesses, and it needs to be looked at as we move into an infrastructure package.

So that is all I have. I will yield back my time. Thank you.

Chairman RISCH. Thank you.

Senator Scott.

Senator SCOTT. Thank you, Mr. Chairman. Good morning to the panel. Thank you for taking the time and making the investment to be here. It is such an important conversation.

Mr. Lettieri, thank you for your testimony. I appreciate the extensive work that EIG has done on the geographic nature of entrepreneurship and economic growth, as well as upward mobility.

As you have pointed out in the past, the country is trending towards greater geographic divides when it comes to job creation, particularly in new, start-up businesses. This geographic divide is causing already struggling communities to fall further and further behind, which has broad social economic impacts.

As your latest report points out, the economic environment of a community has far-reaching consequences for the future of poor children. South Carolina counties, like Williamsburg County, Saluda, that are distressed, present a barrier to upward mobility for poor children. In fact, very few of the counties you have identified as distressed also have a high probability of social upward mobility. In contrast, prosperous counties with dynamic economies seem to lead the way in offering opportunities for financially challenged families.

As you know, and we have talked about in the past, I have reintroduced my bipartisan legislation, the Investing in Opportunity Act, which tries to address this growing concern and this great geographic divide by giving the governor of each state the ability to designate targeted opportunity zones, contiguous regional areas that meet certain criteria. These opportunity zones would then be eligible to receive investment from an opportunity fund established by the bill that allows temporary tax deferment of capital gains and dividends to incentivize investment into distressed communities.

My question is, how do we go about solving the problems related to upward mobility in rural areas? Could we use the tax code to do so under a system like the one that is described in the Investing in Opportunity Act?

Mr. LETTIERI. Thanks for your question, Senator. You mentioned upward mobility. Our research finds this is one of the clearest divides between rural communities we find in the country and between regions. The best engines for upward mobility in the entire country are prosperous rural counties, and, likewise, some of the worst are impoverished rural counties. And so in the South, in particular, you see a real dead zone of upward mobility among even prosperous rural counties, and that is troubling. It speaks to a couple of regional challenges and also some of the broader national challenges.

So the short answer to your question is yes, I think the tax code is one of our best opportunities, and with tax reform on the agenda it is one of our best opportunities to help correct market failure in terms of new business formation and access to capital that we are seeing emerge around the country. And what your bill does, I think, is important in that it collectivizes that problem among investors. Rather than incentivizing individual investors to do things on their own, it really incentivizes them to pool resources and capital and go en masse in a way that is linked with State and local economic development priorities, and that is really important.

And it is also not putting the taxpayer on the hook, which is something that, in our work, we have looked at other incentive programs for investors, or for local businesses, and in too many cases we see that the taxpayer is really on the hook for most of the risk, rather than the investor, him or herself, and your bill inverts that in a positive way. So I think that is important.

Linked back to upward mobility, we see that rural areas that are doing very well with giving poor kids a chance to rise is that the broader environment is one in which human capital is really highly engaged in the productive economy—really high rates of labor force participation. And these do not have to necessarily be prosperous areas, but if people are generally working, it really has a huge impact on poor kids being able to rise later in their lives.

And so the kind of investment that increases labor market opportunities and gets people off the sidelines and into productive work is the kind of investment you will see linked to upward mobility in the future, and that is what we think your bill will do.

Senator SCOTT. Thank you very much. One final question on the opportunity zones component of it, where we provide the governor an opportunity to name those areas. We typically use the New Market Tax Credit designation of distressed communities as a way for us to define, since that sort of codified them and used by the Federal Government. Thoughts on that, as an opportunity zone area?

Mr. LETTIERI. Yeah. I think that is an important marriage of a Federal standard that is necessary to have clarity and also local input. Giving governors the discretion to say, within the census tracts, in this bill's case, that qualify according to that Federal standard, to allow governors to lead in allocating exactly where those zones would go is a good marriage of, again, a strict national standard but intense local input and control.

Senator SCOTT. Thank you very much. I would note that we have been very pleased to have a bipartisan coalition of senators in this—on this task. Senator Bennett, Senator Peters, Senator Booker, Senator—no, not yet? Okay. We will chat later then.

Senator ROUNDS. I am on board.

Senator SCOTT. Thank you. I was just marketing to my friends across the aisle.

Chairman RISCH. No pressure. No pressure.

[Laughter.]

Senator SCOTT. That is why I love her so much.

Chairman RISCH. Thank you, Senator Scott. Senator Heitkamp.

Senator HEITKAMP. Thank you, and I have got a bill for you too.

[Laughter.]

You know, I was recently in—not recently—about a year ago I was in northeast North Dakota. That is potato country, some of the best farmland in the world, an amazing resource of just bright, challenged—you know, people who challenge the system and get things done. There are 80 primary sector jobs open, because they cannot find workforce. Too big of challenges is convincing people that they want to live in communities that are less than, you know, 100,000 people. And the other big challenge is affordable housing, the lack of infrastructure for communities.

So these are things that, you know, we keep—simply, you know, providing tax credits or doing the things that we are trying to do around the edges to jump-start, you know, entrepreneurship may not—I mean, we may be missing the real opportunity here. So I just want to kind of say that, that this is a bigger problem than just simply creating primary sector jobs in rural America.

We used to do that, when I was involved in economic development in my State. I still am involved in economic development. We used to say, if we build the jobs they will stay here. That is not always true. And so we need to be really careful.

But the one area that I care about is start-ups. You know, not letting the two coasts have all the opportunity here but to build the opportunity for young people to think, man, I can do that in Fargo. I can even do it in Walcott. You do not know where Walcott is but it is a very small town.

Anyway, so I am curious about my bill, which would be a very small investment. We would take about $1.2 million and we would say, this is only for communities under 100,000 people, and what we are going to do with this money is we are going to give it to the cities and they can provide some really small amounts, about $120,000, to young entrepreneurs. Because what young entrepreneurs in my community tell me is that they have a really hard time figuring out how they can go to work, start their young families, and still invent, still create. And so this would be a way to provide some bridge funding before that idea could be utilized.

What do you guys think of that idea? Do you think that would actually have impact, if we could provide just some of that seed money to individuals so that they could have that period of time to create, maybe a two-year period, and still feed their families? Do you think that is a good idea, Mr. Hobart?

Mr. HOBART. Thank you. I can tell you, speaking from our experience, we bootstrapped it from the beginning. So it was a family experience. My daughter helped, you know, raising, originally, the alpacas but also in running the business. My son built the servers. And they have both gone on to college and they are actually, one works for a vet and one works with computers. So it was an education as part of that. Everything we have done we have financed itself, you know, by no financing from outside people.

That said, it was sometimes a struggle. I can tell you right now, in Coeur D'Alene, probably at the end of this month, beginning of next month, there is something being started called an Innovation Hub. It is a collective, where they have taken an old Elks Lodge, which is a big building in downtown Coeur D'Alene, and taken people who are interested in innovation. There is a robotics company. There is a company doing fiber optics, et cetera. And they are renovating that building and we are all going to be working in there together. I have actually taken a space in that area as well.

Senator HEITKAMP. Good for you.

Mr. HOBART. So it is a way for us, at least, to be around each other and bounce ideas off each other, and get that energy. But again, I believe that was all self-funded, so, obviously, any help we could have would be great. But in the case of what we have done in Idaho, we did it on our own.

Senator HEITKAMP. Mr. Lettieri, can you just respond to this idea?

Mr. LETTIERI. So, with apologies that I would want to take a closer look at the bill details, I think the problem you are identifying is exactly right, that in many areas of the country, and particularly rural areas, even if you are a promising entrepreneur with a good idea, it is very hard to find investors willing or motivated to support you. Add to that the fact that Millennials are now the biggest proportion of the workforce, but also have record levels of debt and other obligations that have changed the way that they think about accessing entrepreneurship compared to previous generations.

I think we have a real generational challenge there, and so providing more resources, and particularly ones that are more locally directed, where there is community involvement and the community is taking a stake in local entrepreneurs, I think is a great concept, and again, the need is one that is very clear.

Senator HEITKAMP. Thank you. I think I am out of time, but just an idea. We are looking for those things that would be small investments with big rewards, and I think I am intrigued by other ideas. I would be interested in hearing any additional ideas you guys have on—with only this, then we could see greater activity in rural America.

Thank you.

Chairman RISCH. Thank you, Senator. Senator Rounds.

Senator ROUNDS. Thank you, Mr. Chairman. Gentlemen, I am going to begin and preface my first question with another question that I would like to have answered after my first question is completed, so if that makes sense.

Chairman RISCH. It does not.

[Laughter.]

Senator ROUNDS. Like a lot of things in D.C.

What I am curious about is if you could be thinking about it, if there was one regulatory issue out there that you would like to see addressed by this Congress, that would improve the opportunities for small businesses, rather than asking you to just jump up with it, I want to give you a few seconds to think about that.

But, in the meantime, what I really wanted to kind of spend some time on was the concept of trying to level the playing field and how it impacts small business with regard to sales tax collections. And the reason why I bring it up is the Main Street Fairness Act, which has not been passed yet, would have allowed for states to collect sales tax on internet sales that was on products that were received within their state.

In about 1992, there was a U.S. Supreme Court Decision, *Quill* v. *State of North Dakota*, which said that if you did not have nexus within the state, they could not tax you, and yet, at the same time—you could not collect sales tax on a product. And yet now, with the advent of internet sales, it has gone wild with regard to individuals purchasing items over the internet. And sometimes this is a very successful thing for small businesses.

But the Main Street—or the streamlined sales tax organization has put together some very simple software that has been in testing, beta testing, successfully now since about 2005, which is very easy for an internet company to be able to identify the amount of tax to be collected, and to have it submitted through one central location, which would then distribute—take the responsibility for distributing it back to those states and municipalities.

Sales taxes amount anywhere from 4½ to 6, in some cases 7 percent. Brick-and-mortar businesses compete against that. They have to collect the sales tax. Internet taxes are not required right now unless Congress authorizes that to occur.

I would like your thoughts, and I understand, Mr. Hobart, you are on the other side of this, where you actually sell over the internet, as a small business, successfully. But I would like to have each of you perhaps suggest what you think the impact is. I mean, nationally we are talking about the loss of income to states and local units of governments of perhaps somewhere in the neighborhood of $25 to $34 billion a year, but that is also money, then, that is a competitive disadvantage for a brick-and-mortar, small-town business competing against an internet sales giant that has this economic advantage as well.

Could I ask each of you to comment on that, and what you think, and whether this is a good thing, a bad thing, or your thoughts?

Mr. RILEY. Thank you, Senator. I will answer in an indirect kind of way. I think one of the things that—I am not an expert on the tax code, but what I see, based upon my career working on downtown revitalization, small business development, is that the changes in commerce have impacted small towns. Where you used to go down and you would get your shoes, you would get your shirt, you would get your clothing, what have you, that does not exist in small towns now. So we do have an infrastructure issue that we have to look at repurposing those buildings for some other type of economic activity.

When we look at working across the four states we work in, where there is different State-based policies on sales tax, and that one that the business community navigates, I think some sort of—but regardless of that, these small towns are still impacted because of the different changes in commerce.

So without commenting directly on that provision that you are talking about, I think it is something that needs to be really looked at because it is changing the use of, and the population of how these communities survive, and——

Senator ROUNDS. The impact is there.

Mr. RILEY. It is very much there.

Senator ROUNDS. Mr. Hobart.

Mr. HOBART. Our average sale is about $35, so the impact to us per customer is negligible. But I can tell you we started our business in California, and we used to spend sometimes two days trying to figure out the tax we owed California, because it was not just a straight sales tax. You got into counties and then ZIP codes within counties. So when I think about the complexity of trying to pay tax in—and I do not know how other states are, but I know when we left that, you know, that whole challenge, as we moved up to Idaho it was much simpler.

Senator ROUNDS. So, and that is the reason why the streamlined sales tax plan that is out there right now takes that burden away from the internet salesperson. That is the reason why I was curious.

Mr. HOBART. Right.

Senator ROUNDS. Thank you.

Sir.

Mr. LETTIERI. I would just echo the same point, that complexity is really just as much of an issue, especially for entrepreneurs, as rate, when it comes to the tax code. And so the more we can do to simplify that, the more we can do to provide clarity and remove that uneven playing field that disproportionately affects smaller and newer entrepreneurs, is a good thing.

Senator ROUNDS. Well, and I am out of time, but I am just curious, if there was one single regulation, very quickly, that you could——

Mr. HOBART. I will say one thing. I talked, in my testimony, about internet speed, and I just brought this report—sorry I did not put that in the testimony but it is a report from Ericsson. And just to give you an idea, when I put out a vision of, let us say our virtually walking through our store in a video experience, I will just kind of share this graph here.

But they talk about—what Ericsson did is they studied stress-level people, both EEG, pulse, and also with eye tracking, to see what levels of stress people go through, with different interactions. And they compared things like waiting in line at a retail store—brick-and-mortar. They also looked at standing at the edge of a virtual cliff, and then watching a horror movie. And in their study, it shows that waiting, slow waiting on media on mobile devices is higher than watching a horror movie——

Chairman RISCH. They did not need a study for that.

[Laughter.]

Mr. HOBART [continuing]. Or standing at the edge of a cliff.

So my bottom line is, that is great, but if we can actually have these great experiences, not a horror movie experience, for our customers in the future, that will be critical for our success.

Chairman RISCH. Can we put that in the record?

Mr. HOBART. Absolutely.

Chairman RISCH. Would you leave that for us? I would like to put that in the record.

[The report follows:]

THE STRESS OF STREAMING DELAYS

EXTRACT FROM THE
ERICSSON MOBILITY REPORT

MOBILE WORLD CONGRESS EDITION

FEBRUARY 2016

THE STRESS OF STREAMING DELAYS

When consumers turn to their smartphones to find information quickly, they want an instantaneous response. A neuroscience study measuring user reactions to network performance has shown that delays in loading web pages and videos while completing tasks under time constraints are taxing – heart rate and stress levels increase. Both time-to-content and additional delays due to re-buffering lead to decreases in Net Promoter Scores (NPS). On the other hand, smooth browsing and video streaming lead to increased NPS for a mobile broadband service provider

Forming a more objective picture of user experience

Who?
Ericsson ConsumerLab engaged a neuroscience consultancy[1] to study user reactions to varied levels of network performance during a smartphone experience.

What was measured?
Brain activity, eye movements and pulse were recorded while subjects completed various tasks by browsing the web and watching video clips. Changes in the perception of mobile network operators and content providers before and after network usage experiences were also measured.

How?
Participants were exposed to a high degree of delays, a medium degree of delays or no delays at all while they completed tasks, allowing a detailed analysis of how the duration and extent of delays affected emotional engagement and stress.

Why?
The results help to uncover how variations in network performance can impact consumer experience and ultimately affect brand equity.

The study revealed that delays in loading web pages and videos lead to increased heart rates and stress levels. On average, single delays resulted in a 38 percent increase in heart rate.

As for stress, participants already exhibited an increase from pre-task baseline levels, which was attributed to the pressure of having to complete tasks within a set time limit. With the introduction of delays, the stress levels then increased further.

Heart rate increases 38% with mobile content delays

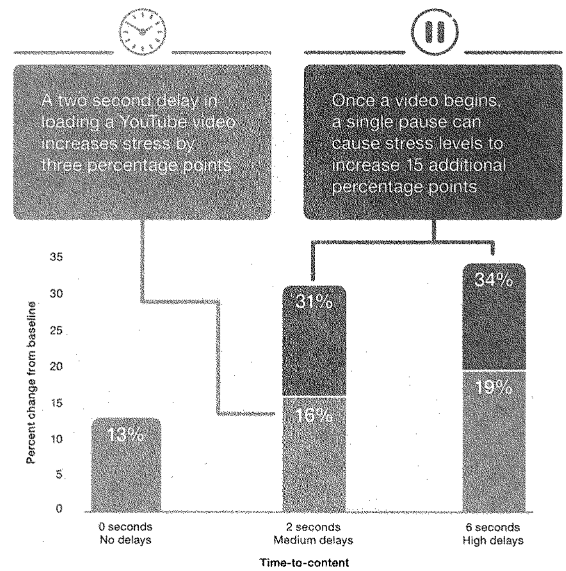
[1] Copenhagen-based Neurons Inc.

Stress and streaming

Participants' responses to initial load time (time-to-content) and pauses due to re-buffering while watching videos were assessed by measuring cognitive load[2], an indicator of stress. With no delays, stress levels during the video tasks averaged 13 percent above the pre-task baseline. A medium delay of 2 seconds when loading videos led to average stress levels to go from 13 percent to 16 percent above the baseline. Once a video started to stream, a pause due to re-buffering caused stress levels to further increase by 15 percentage points. With high time-to-content delays of 6 seconds, half of the participants exhibited a 19 percent increase relative to baseline levels while the other half exhibited signs of resignation – their eye movements indicated distraction and stress levels dropped.

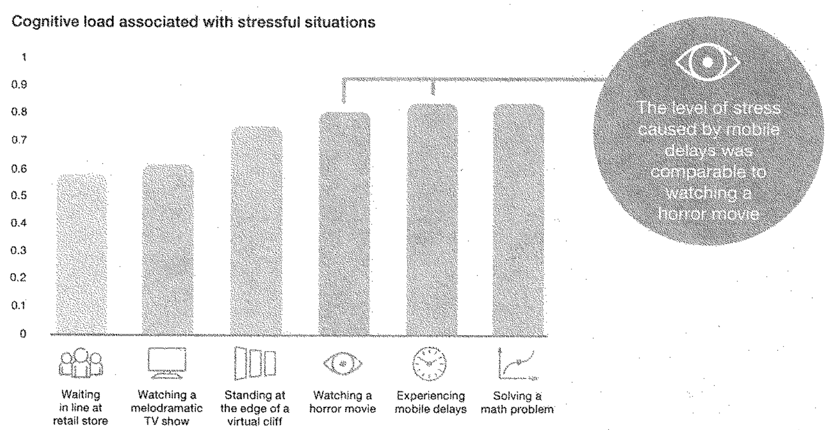
To put the findings of this study in context, the measured levels of stress can be compared to other situations in everyday life. For example, the stress response to delays was similar to that of watching a horror movie or solving a mathematical problem and greater than waiting in a check-out line at the grocery store.

Average change in stress when facing streaming video delays



Source: Ericsson ConsumerLab neuro research, 2015
Base: Smartphone users aged 18–52 from Copenhagen, Denmark

Cognitive load associated with stressful situations



Source: Ericsson ConsumerLab, Neurons Inc., 2015

[2] Cognitive load is described on page 7

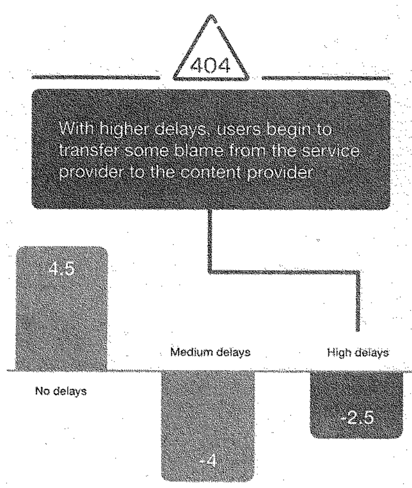
Patience is a virtue, but not for users

Participants that experienced no performance delays demonstrated a net increase in brand engagement, measured using a motivation index.[3] This suggests that they became happier with their mobile service provider. In comparison, the groups subjected to medium and high delays displayed neutral and even negative brand engagement.

Interestingly, medium delays resulted in a double negative effect on the service provider, as they not only decreased brand engagement with consumers but also caused an increase in engagement with competitor brands. Meanwhile, users who faced high delays responded negatively to all mobile service provider brands. This surprising finding suggests that major delays can even cause the whole industry to suffer a loss of brand equity.

Similar effects were observed when looking at changes in NPS[4], which were calculated using data gathered from a survey administered to participants both before and after they experienced delays. On a scale of 0–10, NPS fell by 4 and 2.5 points for those who faced medium and high delays, respectively.

Change in NPS score for mobile service providers



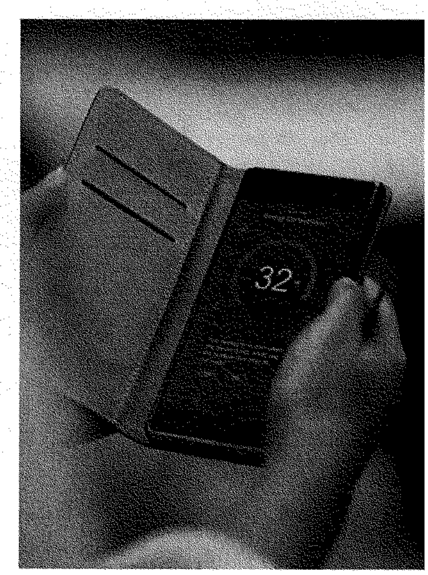
Source: Ericsson ConsumerLab neuro research, 2015
Base: Smartphone users aged 18–52 from Copenhagen, Denmark

-4 POINTS

Moderate time-to-content and re-buffering delays lead to a four point drop in NPS on average

The lower drop in NPS for those subjected to high delays was attributed to users transferring some of the blame to the content provider.

For those who faced no delays while completing the assigned tasks under time pressure, NPS increased significantly for their own service provider (4.5 points), suggesting that offering customers good network performance when it is needed is a key to improving brand equity.



[3] Motivation index is described on page 7
[4] NPS is a quantification of the likelihood that a customer would recommend a company's product or service. Its customers are scored on a scale of 0–10 and then divided into three categories:
> 9–10 – promoters: loyal enthusiasts who keep buying from the operator and referring others, fueling growth
> 7–8 – passives: satisfied but unenthusiastic customers who are vulnerable to competitive offers
> 0–6 – detractors: unhappy customers who can damage your brand and impede growth through negative word of mouth
To calculate an operator's NPS, the percentage of detractors is subtracted from the percentage of promoters. NPS scores analyzed here should be taken as indicative since the study did not encompass a large enough sample of users to provide statistical significance

Methodology: Measuring user response to network performance

A total of 30 volunteers aged 18–52 in Copenhagen were randomly selected from an existing panel of online users. All of the participants were mobile broadband subscribers that regularly browsed and streamed video on their smartphones.

The participants were fitted with pulse meters and eye-tracking glasses, as well as EEG electrode headsets to record brain activity. They were each issued an Android smartphone, and asked to complete 18 tasks within a 20 minute time period. The smartphones were programmed to appear as if they were using a mobile broadband network connection. The tasks consisted of navigating through news articles on web pages and YouTube videos which were set up with a range of pre-determined delays.

The subjects were split into 3 groups of 10, and each group was exposed to a different level of network performance while attempting to complete the mobile web and video tasks. None of the respondents knew they would be subjected to pre-determined delays.

> Group 1 (no delays)

> Group 2 (medium delays): 4–6 seconds of web page load time; 2 seconds of video load time and 3 video pauses of 3 seconds due to buffering events

> Group 3 (high delays): 10–14 seconds in web page loading; 6 seconds of video load time and 3 video pauses of 3 seconds due to buffering events

To measure consumers' unconscious responses to brands, the participants were shown a series of images including logos of mobile operators and content providers. Participants were also asked whether they were willing to recommend their mobile broadband service provider. The tests were administered both before and after the web and video tasks in order to measure changes in responses.

Measuring consumers' unconscious response to brands opens up insights into how network performance impacts brand perception

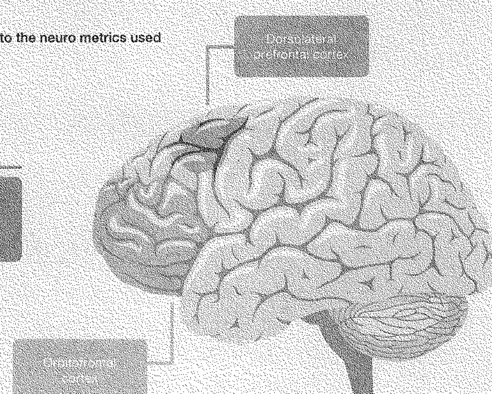
The study was designed around three types of measurements: electrical activity in the brain, eye movements, and pulse. Brain activity captured with EEG headsets was used to assess the two neuro metrics described below.

Cognitive load is a score that measures the amount of information that a person is processing and "holding active" in the dorsolateral prefrontal cortex (DL-PFC) part of the brain. A high cognitive load is part of a stress response. A score up to 0.7 is acceptable and considered normal for proper information processing. However, scores over 0.8 are considered very high and stressful.

The **motivation index** is a calculation of the relative activation of the left versus right orbitofrontal cortex, and is closely linked to approach-avoidance behaviors. Studies have demonstrated that a stronger left than right activation is related to approach motivation and action, while a stronger right than left activation is indicative of avoidance motivation and behaviors. The phenomenon has been studied using EEG, functional magnetic resonance imaging (fMRI) and patient studies, and is considered a simple but robust phenomenon. It was used in this study by having the participants focus on a screen where brand logos were shown for a few seconds at a time while motivation response was measured with EEG.

Functional areas of the brain relating to the neuro metrics used

EEG electrode headsets were used to record brain activity



Ericsson is the driving force behind the Networked Society – a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, business and society to fulfill their potential and create a more sustainable future.

Our services, software and infrastructure – especially in mobility, broadband and the cloud – are enabling the telecom industry and other sectors to do better business, increase efficiency, improve the user experience and capture new opportunities.

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Chairman RISCH. Thank you.

Senator Rounds.

Senator ROUNDS. Thank you.

Chairman RISCH. You know, that complexity issue, I think all of us had concerns about that when they had the Main Street Fairness Act, but, Senator Rounds, you are more of an expert on this than I am, but correct me if I am wrong. I think what they did is they got it where the retailer was not responsible for figuring out whether there was a tax from the city, the county, the mosquito abatement district, or whatever.

Senator ROUNDS. That is correct. That was the nice thing about it, is it actually absolves the retailer from liability. And so if they collected—and they do not use the streamlined process, and they collect it and remit it, if they collect it wrong they are liable to have to go back in and fix it. We have got large companies, within places like South Dakota, that actually use the streamlined process, because if they use it and they remit the approp—or they remit the tax based upon what the streamlined system estimates it to be, they do not have to worry about a liability in the future, and the streamlined process actually takes responsibility for distributing it. You do not have to distribute it out to everybody, because you are absolutely correct—it would be impossible to go to all the places.

But the streamlined system, and the organization, actually takes responsibility for collecting the correct amount and then distributing it out to the different segments, and all of the organizations that are part of the streamline, the vast majority of the states and communities now, they had to simplify their sales tax processes in order to join in the first place. And in doing so, it makes it a whole lot easier for someone on the internet. One stop shop. Go to the internet, look up, in the software, which is free. Pick it up, put it on your software, and it will determine the amount of tax, based upon where the address of delivery is. And then you can collect it. You remit it one single location. You do not have to worry. Even in your home state you do not have to worry about a separate collection location. So you are correct, sir.

Chairman RISCH. When we were debating that, the question I had was the cost of that software for a small business, so if it is available free, that is——

Senator ROUNDS. It is either free or it is a very minimal charge, but I think it is free right now.

Chairman RISCH. Senator Shaheen, you have a comment?

Senator SHAHEEN. Well, I just wanted to point out that for those states like New Hampshire that do not have a sales tax, it would not solve all the compliance burdens, because states—some states might not opt in. I think there is a real question about whether New Hampshire would opt in, and that would then leave the small business on the hook to deal with the problem.

So I am not sure that the way the bill is currently fashioned that it would actually solve all the problems that you suggest.

Senator ROUNDS. Yeah, and actually, if the internet sales tax is being collected, if you did not have any to collect in New Hampshire, it would not—it should not impact New Hampshire, if you do not——

Senator SHAHEEN. Then you are on the hook for it. Yeah, sadly.

Chairman RISCH. They were—when that bill was drawn, we had a robust discussion about it, and I think myself and Senator Crapo voted against that, simply because they would not up the threshold. I thought that there should be a safe haven for small businesses, and the threshold they had was $1 million in sales, and I thought that was kind of light, that it should be $3 million. They would not even give us a vote on the amendment, so we voted against it. But there were—you know, there is a lot of——

Senator SHAHEEN. That is another issue.

Chairman RISCH. Yeah. Another issue, but an important one. Senator Young.

Senator YOUNG. Thank you, Chairman. Mr. Lettieri, I thank you for your appearance here today. I really found your testimony compelling. I think your point that—this is not really about rural versus urban. As important as this hearing is, I am glad we are intently focused on the distressed communities and how we can bring them into a more prosperous environment that happened to be in a rural area. But this is about connectivity, and you lay out a number of areas where connectivity is important, not just in an urban setting but a rural setting as well. Access to infrastructure, global markets, capital markets, the internet, human capital—there are probably others we could conceive of.

And with that in mind, let me start with just talking about a lack of connectivity in my State of Indiana. In Owen County, Indiana, Hoosiers experienced a 25 percent decline in job growth between 2010 and 2014. I know so much of this has to do with the lack of job creation in places like Owen County. People are not starting enough new businesses. We know that. That has been said here by a number of individuals today. Start-up growth in rural counties with less than 100,000 residents decreased from 9 percent growth in the mid 1990s to −1 percent between 2010 and 2014.

We do not have all the answers here, Mr. Lettieri, and all the solutions, frankly, should not emerge from the Federal level, something that, again, has been emphasized by a number of you. My hope would be that if we focus intently on this we can come up with either some obvious solutions—I think there are some: simplifying the tax code and reducing regulatory burdens, and so forth—maybe some creative solutions as well—focusing on access to capital as a limiting factor in connectivity.

Mr. Lettieri, can you speak to the impact that consolidation within the banking sector has had on small business lending, or a lack thereof, in recent years, and what we might do at the Federal level to address that dynamic?

Mr. LETTIERI. Thank you, Senator, for the question. So this is a question that comes up a lot because, really, folks in every state and community are hearing about this from their constituents and from business owners. As you know, small business lending is down to about late 1990s levels, in absolute terms, and there is rapid consolidation within the banking sector, and that has been happening for a while.

So there are a number of components to that, but really, fundamentally, it is a lack of new entrants into the sector rather than, again, like we see so much in the economy, it is not too many deaths, it is too few births, in terms of businesses.

And so that is having an impact in this conversation, in this context, because small and community banks are obviously a lifeline for many communities, and many businesses in those communities really only have very few options, and community banks are among the top options for how to get financing.

I want to distinguish that, though, from start-up financing, because most start-ups do not use banks to get their initial financing. It is much more credit—personal credit, personal savings, friends and family, and that is really where the bulk of it comes from. And lending is important from traditional institutions. That comes much further on in the process.

So for a healthy ecosystem you need all of that, and what we are seeing is at the very early stage there are some signs of ill health, and then at the community banking stage, later on, for many of these communities there is a lot of reason to be concerned.

Part of this also has to do with low interest rate environment. We have—you know, we have had a long-standing low interest rate environment. That is unusual, in terms of the history of the banking sector, and that makes it harder to find profitability. If you are a small firm, you have got to amortize these costs out among a, you know, a smaller infrastructure. It is tough. It is tough.

So there is—it is more than just regulation, but regulation obviously does play a part of it.

Senator YOUNG. And to the extent some of these younger firms, those that have been around for a couple of years, looks like they are going to make it, they are profitable, they want to expand, that is where your community banks come in. And I think of reducing the burden of regulation, where we can, so that we ensure we have smart regulations which are streamlined, to meet the needs of protecting consumers and a broader economy but not stifling growth of firms in our rural communities, and urban communities.

If I could pivot to our labor markets in my remaining time, internal migration, EIG has noted in their Dynamism and Retreat Report, that has declined within the United States, both within states and across states. Half as many American workers are moving across State lines for employment opportunities today as they were in the 1990s. This is not only an economic shift. When you really think about it, it is a cultural shift. We are a pioneering people, if you look back, historically, who moves wherever their jobs are, wherever opportunities might exist. I know a number of people have been stuck, in the course of this recent financial crisis. They are underwater in their houses, so that has been one of the drivers of this.

Can you think of, or have you put forward any ideas, or perhaps problems we should work—focus intently on trying to solve or mitigate that would help address this mobility issue, get more people moving to where the jobs are?

Mr. LETTIERI. It is a really important issue and I think it is fairly stunning. We have seen a decline of over half the rate of across-border mobility, just since the late 1990s. And so that has been traditionally—we have had a high rate of mobility, which meant that we could really have a nice corrective mechanism in the economy as people moved out of areas of distress into areas of higher opportunity. The labor market was more fluid as a result, and with that slowing down that really does change. It is economic and cultural. I think you said that well.

So one thing—I am going to cheat a little bit because obviously we are here in the Senate, but I am going to point to something that is much more state and local, which is occupational licensing. Although the FTC, I will note, has taken an active interest in this now, and I think there is an opportunity from the Federal and regulatory side to do something about it, occupational licensing is pervasive.

Eleven hundred occupations nationwide are licensed but only 60 are licensed in every state, so that tells you something. It means that there is a huge mismatch. It tells you that it is way beyond the boundaries of what is good for consumers or what is necessary, in terms of consumer safety, and it is an inhibitor for mobility purposes. If I have a license in one state, I have gone through the time and expense of doing that, often unpaid. Then if I move across State lines I have to go through that whole process all over again. So again, I am stuck in place. Or it is a tax on people who cannot afford it. So this disproportionately affects low-income people and low-income entrepreneurs the worst.

So if we want to do something in a low-dynamism environment that is going to free up labor mobility, it is going to free up access to talent for business, it is going to free up entrepreneurship, this is an area that is the lowest of low-hanging fruit, and there is broad bipartisan consensus that it has become an abusive—basically an incumbent protection racket for a lot of businesses that perversely control the licensing boards themselves, so they get to tell you who is going to compete against their industry. In a competitive market economy, we should find that unacceptable, and so I think this is something we should do about—do something about now.

Senator YOUNG. Thank you for shining a bright light on that important issue.

I yield back.

Chairman RISCH. Thank you.

Senator Kennedy.

Senator KENNEDY. Thank you, Mr. Chairman. I apologize, gentlemen, for missing your testimony. I was in another committee.

I am embarrassed by the fact that it is so hard in our country today to start a small business and to expand that business. I do not think it has ever, ever been harder. If each of you were king for a day, and you did not have to worry about the politics, or—you just had unfettered discretion, what would you do to make it easier to start a business, and to make it easier to expand a small business? And I would like to hear from each of you, if I could.

Mr. LETTIERI. I will keep mine brief because it is——

Senator KENNEDY. No, that is okay.

Mr. LETTIERI [continuing]. It piggybacks on what I just said to Senator Young. I think because of how pervasive it is and because of how many different types of industries and what part of the population it really afflicts the most, I would say starting with local and State occupational licensing, and business licensing, which is often kind of the cousin of the occupational challenge. We are just doing too much to protect incumbents in this country, really, top to bottom—Federal policy, State policy, local policy—and that is misguided, because, frankly, when we talk about tax reform or regulatory reform, all these things, complexity favors larger companies. It favors scale. And it is exactly what we are seeing in the economy today. There is increasing scale. Older incumbent companies are doing much better than they ever have before. They are more profitable.

So the idea that we have to keep in mind is for whom are we doing certain things in the policy space? And I think your initial point was exactly right—it is too hard to start and expand a business now, in part because policy and regulatory decisions have been made too far on the incumbent end of the spectrum and not enough on the start-up end of the spectrum.

Mr. HOBART. As I stated in my testimony, we have started an internet business from the ground up, grew it as a family business, and are continuing to grow it. That said, it has been a long journey. It has been 12 years now, and we are growing slow. So I came out of Silicon Valley where I was surrounded by people who wanted to, you know, get the big payout in two years, and that is not what we are doing here.

What we are doing is listening to our customers and growing, and what I would like to see is any kind of reducing of any kind of burdens that we have, as far as reporting and just legislation that burdens us, to run our business, obviously, but also growing our staff. We do have great employees. They do a great job for us. But on the technical side, we have to sometimes bring in people from outside of our area.

Now, being an e-commerce business we can do that with the click of a button, literally. So we literally have people who do graphics or—in fact, one of my first employees, a very talented kid, he has now moved to New Hampshire, and he is now the global editor for Wikipedia, actually, but he got his start with me, and he was in San Francisco. He moved to New Hampshire.

So—and so I have adapted our business by bringing in people who are not physically there, but obviously if they were in our location, and we were working as a team, we would have a better team, and we would even grow more fluidly.

Mr. RILEY. Thank you, Senator, for the question. And so it is one that keeps some of us up at night and thinking about what could we be doing better to stimulate the entrepreneurial fiber in this country and in our region we work in. And I think there is—let me go to more of a people side. I have got two young kids, 12 and 15, and I think about the opportunities within the school environment they have to be thinking outside the box, thinking about using technology, thinking about how they are driven to be individuals within the system. And I think that there is an element where there was a period where we were trying to get everybody all to think the same, and I think we need to think about how difference can really be an exceptional way in which we mix things up. That is an entrepreneurial spirit to me.

The second piece is, where do we place people who are trying to come into this country into existing open jobs that need to be filled by people who are here who are not filling them? So how do we add to the labor force? And I think there are people who are coming with great ideas that can do that.

I think the third piece is, what is the component within a community that sets up the notion of entrepreneurs, and I think that there are other comments before about how you look at the infrastructure within a community to allow things to happen, whether it be water and sewer or broadband. You look at the support structures that allow people to navigate through the complexity. And I believe that people are pretty smart and capable and can move through that complexity if they need to, but they need certain certainties.

The business community, in my opinion—and I—I mean, I run a nonprofit, but it is a small business. I have got 15 employees. Every year we have to go back and look at what our health insurance costs are, and it is an enormous time and resource challenge to look at the uncertainty of that specific type of market.

But to the entrepreneur, they need to look in their community and see what is the stability of the school system, what is the certainty of the health care system, what is the certainty of the tax code—all these different uncertainties. I think that, in and of itself, is a barrier to people getting into this very dynamic place.

Senator KENNEDY. Thank you, gentlemen. Thank you, Mr. Chairman.

Chairman RISCH. Thank you, Senator.

Senator Shaheen, anything else for the good of the order?

Senator SHAHEEN. Yes. Thank you, Mr. Chairman. I wanted to follow up on a couple of things. One, Mr. Lettieri, I wanted to follow up on your licensing restriction issue, because, I mean, that is a very—as you point out—it is really based mostly on states and how states decide what should be licensed or certified and what should not.

So what could we do at the Federal level that could help address this problem?

Mr. LETTIERI. This is going to be an unsatisfactory answer, so here is your warning. But shining a spotlight on it, even as a first step, really does have an effect. We have seen since—there was a 2015 Supreme Court case that really changed the conversation about occupational licensing and brought a lot of new attention to it. And since then you have seen a proliferation of states taking the initiative to roll back and reform their licensing regimes and make them much more competitive and open to transparency.

So sometimes legislation is not required, at any level, just to start the inertia towards change and reform, and I think using the bully pulpit that you have here in the Senate, and this committee in particular, to shine a spotlight on the worst abuses, would be an enormously good use of your time, because there are many motivated constituencies that want to bring more attention to this and actually help effect change at the State level. They need your support.

Senator SHAHEEN. Sounds like a good hearing.

Chairman RISCH. It was an excellent hearing. Mr. Lettieri, certainly you are not suggesting that the Federal Government could do this better than the State governments could, are you?

Senator SHAHEEN. No. He is suggesting we have a hearing on it——

Chairman RISCH. I see.

Senator SHAHEEN [continuing]. Which I think is a great idea.

Mr. LETTIERI. There you go.

Senator SHAHEEN. Let me also follow up with, Mr. Riley, you talked about the Rural Development Innovation Group and the principles to improve programs designed to aid rural communities. Can you talk a little bit about some of those?

Mr. RILEY. Sure. Thank you for the question, Senator. The Rural Development Innovation Group, as I said before, is a partnership of the Aspen Institute and the U.S. Endowment for Forestry and Communities, and has a number of—dozen different practitioners from across the country that are in many different districts across the country.

We have come down to thinking about two major buckets, as I said before—investing in people ideas and markets, not just transactions, and the second is really making sure that investment is scaled to the rural opportunity.

Two examples. One, the Rural Business Development Grant, the RBDG, is a great program in its flexibility to invest not only in the capacity of my organization to provide support to entrepreneurs but direct assistance to those—or direct investments in those businesses themselves. We want to keep that.

Part of that program that is more challenging is that the threshold for investment is that the revenues of that company have to be below $1 million. Back when this legislation was put in place, that might have been a significant number. Now it is—you know, you are just getting interesting—I mean, not to sound, you know, derogatory, but that is where things are starting to really happen.

So at the million-dollar threshold, we have to tell NorthWest Manufacturing, because they have been successful in the last year, we cannot work with them anymore with that grant source. So that—the group is really highlighting, within specific programs, the positive components that we want to keep, because it serves a constituency that is important, and those elements that need improvement, because they do not work in the context of today's rural environment.

And to your question you asked before, I just want to follow up on that. The tools that we have, the Community Development Block Grant, the Manufacturing Extension Program, EDA, if not for these programs, these businesses would not be positioned for growth that they are today, to be employing 12 people, which, as you all know, in rural places, is significant.

So we have—and I shared with one of your staff—a draft of one of our recommendations on the RBDG program, and this group that we are working with nationally is going to come out with about 12 of them. It is really focused on key programs, CDBG being one, MEP being another—sorry for the acronyms—that will look at aiding your staff and agency folks as how we, from the field, see those programs working better, in addition to the good work that they are already doing right now.

Senator SHAHEEN. That would be very helpful. Senator Risch and I have both been governors and so we have seen those programs, many of them from the State perspective as well, and as you point out, for so many of our small businesses in New Hampshire, what we are trying to do gets done because we have lots of partners to contribute to that.

Mr. Hobart, you talked about innovation hubs. Well, the CDBG grants have been critical in getting several innovation hubs going in New Hampshire, as well as affordable housing. I mean, they have been really critical to affordable housing. And without some of those partners to participate, it would be really hard to do some of the things that are challenging anyway, but become impossible without that kind of support.

And I have to say that the SBA and the Small Business Development Centers and the Women's Business Centers, the effort to help veterans, all of those are also critical as we think about how can we help small businesses, and what we want to do is try and make those programs better. Thank you.

Thank you, Mr. Chairman.

Chairman RISCH. Senator Inhofe. Welcome.

Senator INHOFE. Thank you.

Chairman RISCH. Good to have you.

Senator INHOFE. You know, we have got to do something about this. We have—I think we have more than 50 percent of the membership of this committee are also on EPW, and they meet at the same time, so that is a——

Chairman RISCH. I am supposed to be in Foreign Relations right now.

Senator INHOFE. Yeah, okay. Well, I will make this quick.

Chairman RISCH. It is all right.

Senator INHOFE. But the problem we have is I do not know what has already been discussed, and puts this in a——

Chairman RISCH. We will fill you in.

Senator INHOFE. All right. Well, let me just—Mr. Lettieri—did I pronounce that right?

Mr. LETTIERI. Nailed it.

Senator INHOFE. I am sorry? Oh, okay. That is nice of you. We have got a——

Chairman RISCH. This is actually where the committee—this is actually where the hearing started, because I did not know how to pronounce it.

[Laughter.]

Senator INHOFE. Okay. Since 1980, the number of small banks—I am sure you have been talking about that. In my case, of Oklahoma, we have had 500 banks chartered in the 1980s. Now it is down to 209, and this is a serious problem, and the Dodd-Frank has made it a lot worse. If you ask any of our people in Oklahoma as to what is mostly accountable for it, they will say Dodd-Frank. And I would ask you the question, have you see this as well, or, have you already discussed this in a lot of detail before my arrival?

Mr. LETTIERI. We did discuss it in some detail. I am happy to address it again, though.

Senator INHOFE. But you—Oklahoma is not alone.

Mr. LETTIERI. It is not alone, no. I mean, this is something we see industry-wide. It is also a trend that, in some ways, predates Dodd-Frank. So I think we should be careful to separate out some of the parts of this. Some of it is a trend more broadly in the economy towards market consolidation. Some of it is a different regulatory environment. Across the board you hear small community banks saying their compliance costs have gone up, and that is obviously an issue and a disadvantage.

Part of it is a low interest rate environment. Part of it is a demand environment that is different. So all of those things contribute, and should be considered kind of separately but relatedly.

Senator INHOFE. Well, good. And, Mr. Chairman, I have a letter here from our community banks and our Oklahoma Bankers Association I want to be made a part of the record in this—at this hearing.

Chairman RISCH. Thank you, Senator. So ordered.

[The letter follows:]

CBAO
COMMUNITY BANKERS
ASSOCIATION OF OKLAHOMA

OKLAHOMA
BANKERS
ASSOCIATION

April 25, 2017

The Honorable James M. Inhofe
United States Senate
205 Russell Senate Office Building
Washington, DC 20510-3603

Dear Senator Inhofe:

The Community Bankers Association of Oklahoma and the Oklahoma Bankers Association are working to reduce the unnecessary over regulation of the community banking industry of this country and help our rural communities. As applied to community banks, Dodd-Frank limits consumer choice and denies bank customers access to the credit and capital they need that will enable them to capture their dreams. Your continued support of our issues is very much appreciated.

Since 1980, the number of smaller banks in the U.S. – those with less than $100 million in total assets and the ones that are most likely to help small business customers start or add to their dream of owning and operating their own business – have declined by 88.6 percent. This is alarming considering that community banks provide nearly half of all small business loans.

The industry in Oklahoma is continuing to consolidate, which means fewer options and less competition for Oklahoma consumers, particularly in the mortgage lending space. In 1988, Oklahoma had roughly 500 charters and today that number has dropped to 209.

Dodd Frank only exacerbated this problem. Since Dodd-Frank, as a nation, we have lost approximately 25 percent of the nation's banks, yet at the same time, the nation's largest institutions have grown significantly. The overarching regulations of Dodd Frank have put many banks and their customers out of business, especially those in small rural communities. At the same time, Oklahoma has not had a new bank charter open in the last seven years. This means fewer options for rural small business looking for capital to start or grow their business.

The lack of growth of the banking industry is not the only problem small community banks face today. Smaller banks can be less competitive with the ever-growing pile of regulations that are coming down on them from Washington, as a result of Dodd Frank. In Oklahoma alone, regulatory compliance costs have increased by 30-40% since Dodd-Frank was enacted in 2010.

Congress can help community banks, and in turn, rural small businesses by allowing exemptions for smaller banks from some of the most onerous provisions of Dodd Frank including unnecessary data collection requirements demanded by regulators, which has made some small banks less willing to lend at all.

To reach their full potential as catalysts for entrepreneurship, economic growth, and job creation, community banks, and especially their customers, need relief from suffocating regulatory mandates. The exponential growth of these mandates affects nearly every aspect of community banking. The very nature of the industry is shifting away from community investment and community building to paperwork, compliance, and examination.

Thank you for your continued support of our industry.

Craig Buford
President & CEO
Community Bankers Association
of Oklahoma

Roger Beverage
President & CEO
Oklahoma Bankers Association

Senator INHOFE. Now, the letter outlines all these issues and articulates that it hurts not just the banks but the communities that they support, which will continue if we do not roll back the burdensome Dodd-Frank regulations. Among the regulations these banks are facing from Dodd-Frank are numerous data collection requirements demanded by the regulators, which has made them less willing to lend at all, and that is a problem that we are having in our rural areas in Oklahoma.

What specific things can we do to help encourage these banks to lend to small businesses? Have you thought about this?

Mr. LETTIERI. Well, we also talked a little bit earlier about the distinction between small and new businesses and the fact that new businesses tend not to seek bank lending for start-up capital, but that is important later on as they grow in scale and are more established.

So again, it is a demand environment that is weak, as well as a regulatory environment that is more pervasive. And the way I would think—at least the way that I personally think about regulation, it is a lot like antibiotics—they are very important but overprescription tends to be harmful. And so I think in some areas we have gotten into that over-prescription case and we should be, especially in an environment where we see fewer new businesses being formed, including in the banking sector, we have to be really thoughtful about how every new regulation is going to tilt the balance more towards consolidation and incumbency rather than new entry into the sector.

But we can do a lot by creating a healthier demand environment, and that will also help community banks to thrive more. And that gets back to some more basic pro growth simplicity of the tax codes, simplicity of regulation, connectivity to the global market economy through FDI and through trade, and I think on all of those areas there is pretty widespread agreement we are falling behind. And so doing that will create a healthier demand environment that will help banks and other types of businesses do better.

Senator INHOFE. Good. Good. That is good. You know, I just came to the meeting in Environment and Public Works, and it seems—the chief criticism—one of the criticisms I had with the previous Administration was overregulation. I mean, everything has to be regulated more. The water regulation, for example, if you talk to anyone in the farm communities throughout the country, they will say the biggest problem that farmers and ranchers have is the overregulation of the EPA, and then, specifically, the water regulation, which is what the hearing was about that we just had.

So regulation is regulation. Overregulation is overregulation, and I think you are going to see some changes here. I think they will be welcome changes.

Thank you, Mr. Chairman.

Chairman RISCH. Thank you very much, Senator. And with that, we will conclude the hearing.

I want to thank our witnesses. This has been informative, certainly thought-provoking, and your assistance and participation is greatly, greatly appreciated.

So with that, we are adjourned.

[Whereupon, at 11:28 a.m., the Committee was adjourned.]

APPENDIX MATERIAL SUBMITTED

Questions from:

Senator Hirono

In your recent study, "Is the American Dream Alive or Dead? It Depends on Where You Look," you conclude there is a correlation between the degree of prosperity or distress in a county and the extent to which it boosts or hinders the future earnings potential of the children who grew up there.

QUESTION 1:
Can you elaborate on the factors that positively affect the future earnings potential of children in prosperous counties?

In the report, EIG built on research done by scholars at the Equality of Opportunity Project (EOP) and discovered that the degree of overall economic prosperity or distress in a county and the historical income mobility of children growing up there tend to be correlated—meaning that in general, more prosperous counties are also more upwardly mobile ones. EIG gauges the prosperity of a place using the seven metrics that constitute our Distressed Communities Index (DCI). These metrics include:

- Percent of the population 25 years and over without a high school degree
- Housing vacancy rate
- Share of population 16 years and over that is not currently employed
- Percent of population living under the poverty line
- Median income relative to state
- Change in the number of individuals employed between 2010 and 2013
- Change in the number of business establishments between 2010 and 2013.

These metrics are important for understanding the broader economic context of a place or a neighborhood. As demonstrated in the figure below, Hawaii outscores the national average on many of these metrics, and only 1.2 percent of Hawaii's population resides in a distressed zip code compared to 16.1 percent nationally.

State	% of Adults w/o a High School Degree	Poverty Rate	% of Adults Not in Work	Housing Vacancy Rate	% Change in Employment	% Change in Establishments	% Population in Distressed Zip Codes
Hawaii	9.3%	11.3%	42.3%	7.9%	4.9%	-1.0%	1.2%
National	13.7%	15.6%	42.3%	8.5%	5.6%	1.2%	16.1%

Research conducted by EOP scholars goes much further into the factors that more directly affect the economic mobility of poor children. Various academics associated with that project have found that racial segregation, income inequality, poverty, as well as sprawl are negatively correlated with future earnings. EOP scholars also found that education, in both K-12 school quality and colleges per capita, social capital, measured through access to recreational centers and organizations,[1] two-parent families, and lower crime rates are positively correlated with future earnings.[2]

[1] Rupasingha, A. and S. J. Goetz (2008). US county-level social capital data, 1990-2005. The Northeast Regional Center for Rural Development.
[2] Chetty, Raj and Nathaniel Hendren. The Impacts of Neighborhoods on Intergenerational Mobility II: County Level Estimates. (Equality of Opportunity Project, NBER, May, 2017).

QUESTION 2:

Are there examples of successful investments, partnerships, or other community initiatives that other rural communities—like those in Hawaii—could or should replicate in order to increase opportunities?

EIG believes it is important for all places—rural or urban—to have a vibrant pipeline of new businesses to create new employment opportunities and seed industries of the future. 1,400 new companies started in Hawaii in 2014, representing 6.3 percent of all companies in the state (the startup rate). The state's startup rate trails the national average by 1.5 percentage points, however, and is 2.6 percentage points lower than the state's own average in the 1990s and 2000s. In employment terms, too, Hawaii's new companies fall short of the national average. Boosting entrepreneurship is essential to ensuring that Hawaiians have an economic future rich in new, well-paying job opportunities.

Furthermore, initiatives aimed at increasing the connectivity of rural communities—such as strengthening physical and digital infrastructure, and easing access to financial capital—should be priorities for fostering economic opportunities in rural Hawaii.

Connectivity—in terms of access to infrastructure, human capital, and financial capital—is the major differentiating factor between prospering and struggling areas across the United States today. Often (but not always) rural areas confront a connectivity disadvantage. Given its unique geography, Hawaii faces a different—and in some ways more substantial—connectivity challenge when compared to the continental United States. However, it also has a relatively small rural population, with a little over 8 percent of the state living in rural areas (defined by the Census Bureau as non-urban areas) compared to the national average of 19 percent.[3]

Physical and digital infrastructure supports the flow of people, goods, and ideas across the national economy and such infrastructure is important for supporting rural economic

[3] "Urban and Rural Areas in the State of Hawaii, by County: 2010." Hawaii State Data Center, Research and Economic Analysis Division (September, 2013).

development in Hawaii too. Hawaii has shown positive commitments to closing the "digital divide" between urban and rural areas, evidenced through 96 percent of Hawaii's population having access to broadband.[4] On the other hand, Hawaii's physical infrastructure lags the national average—ranking third in the nation for rural roads that are deficient.[5]

Finally, connectivity to financial markets and investor networks is a major problem for rural communities. Nudging investors to look at geographies outside of the familiar coastal hubs would help facilitate rural development. This is the goal, for example, of the Investing in Opportunity Act (S.293 and H.R.828), which provides a targeted incentive to encourage investment in startups, small businesses, and other enterprises in capital-starved communities in every state.

[4] Reese, Nick and Duane Anderson. "Broadband Internet in Hawaii." Broadband Now.
[5] "Rural Connections: Challenges and Opportunities in America's Heartland." TRIP (May, 2015).

Question from:

Senator Duckworth

QUESTION 1:

Mr. Lettieri, in your testimony you discussed challenges in recruiting and retaining skilled workers. In your view, what are the top three challenges in acquiring skilled workers and what specific actions would you recommend the Federal Government take to help rural small businesses address these challenges?

Three interrelated challenges depress the recruitment of skilled workers across the United States: 1) lagging population growth, 2) a proliferating number of restrictions on the supply of eligible workers, and 3) declining geographic mobility. Any Federal action should draw light to these challenges to help rural small businesses better recruit skilled workers.

First, and as highlighted in my testimony, the population growth rate has fallen to less than 1 percent nationally. We are currently experiencing the slowest rate of population growth since the Great Depression. Many non-metropolitan counties now contend with outright population declines: Counties with under 100,000 people represented 95 percent of the 1,700 counties that lost population from 2010 to 2014.[6] Immigration from abroad counteracts some of these demographic headwinds. Immigrants populate or repopulate not only big gateway cities but also myriad small cities and rural communities in need of newcomers to rekindle their economies.

Occupational licenses are a second form of restriction that impede the smooth working of the labor market. Nearly one quarter of the national workforce is required to obtain a license to do their job.[7] Non-compete agreements are another form of restriction that depress the supply of workers. An estimated 18 percent of the national workforce is subject to a non-compete agreement.[8] Affected workers face restrictions on switching employers or even starting their own

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[6] EIG's analysis of U.S. Census Bureau's Business Dynamics Statistics and Population Estimates.

[7] Furman, Jason and Laura Guiliano. "New Data Show that Roughly One-Quarter of U.S. Workers Hold an Occupational License." (The White House of President Obama, June, 2016).

[8] "Non-compete Contracts: Economic Effects and Policy Implications." U.S. Department of Treasury, Office of

businesses. These restrictions are not only deeply unfair in many cases, but they also depress the stock of eligible workers for employers seeking talent.

Another challenge to recruiting skilled workers is declining geographic mobility. The domestic migration rate has more than halved since the 1980s.[9] High internal migration rates historically provided flexibility in the national labor market with workers packing up and moving to opportunity when the occasion presented itself. Depressed internal migration rates today can lead to local mismatches between available jobs and workers that are eligible to fill them. Coupling depressed migration rates with large educational attainment gaps in rural areas makes it harder for businesses to obtain qualified workers. Only 19 percent of the rural population has a bachelor's degree, compared to 33 percent in metropolitan areas. Moreover, 51 percent of rural residents have no schooling beyond high school, compared to 39 percent in metro areas.[10]

Closing the "digital divide" between urban and rural areas, where only 4 percent of urban Americans but a much larger 39 percent of rural Americans lack broadband access, may provide a way for the Federal government to rectify some of these mismatches in a space dominated by state-level policies.[11] With the increasing prevalence of online job opportunities, greater internet connectivity could help small rural businesses access talent outside of their local labor pool. Workers based in rural areas, for their part, could also use digital platforms to find opportunities outside of the local community that match their specific skill sets.

Economic Policy (March, 2016).

[9] "Dynamism in Retreat: Consequences for Regions, Markets, and Workers." Economic Innovation Group (February, 2017).

[10] U.S. Department of Agriculture, Economic Research Service analysis of Census' ACS for 2000 and 2015.

[11] "2016 Broadband Progress Report." Federal Communications Commission (2016) and Karsten, Jack and Darrell West, "Rural and Urban American Divided by Broadband Access." (Brookings Institution, 2016).

Senate Committee on Small Business and Entrepreneurship Hearing
April 26, 2017
Follow-Up Questions for the Record

Questions for Mr. James E. Hobart

Questions from:

Senator Hirono

In your written testimony, you indicated you have customers for your alpaca products in 30 countries.

QUESTION 1:

As a small business, what resources made you successful in exporting your products to other countries?

At the hearing, you stated you had not received outside funding when establishing your business. The Small Business Administration offers a number of programs to assist small businesses with access to capital, including export-financing support.

Answer:
Our exports to other countries are directed to consumers within those countries vs. Business to Business transactions. We performed our research online and utilize USPS to assist in shipping outside the USA. On the import side, many of our products originate in Peru where alpacas are commercially raised for their fiber. We were contacted by the Peru export ministry and have been hosted by their organization on numerous trips to Peru to connect us with suppliers. This has been critical to our success.

QUESTION 2:

Were you aware these programs existed?

Answer:

Yes, we were aware these programs existed but there seemed to be a lot of constraints and strings attached to the funding so we opted for self-funding and grew our business in more of a 'Bootstrap' mode over the years.

QUESTION 3:

If not, what can the Small Business Administration due to help make small business owners aware of these programs?

Answer:

I revisted the SBA website and found it very confusing to navigate as a small business owner. The first thing I would do is redesign the website around a few key user goals and make the process for getting funding much simpler.

Question from:

Senator Duckworth

QUESTION 1:

Mr. Hobart, in your testimony you discussed challenges in recruiting and retaining skilled workers. In your view, what are the top three challenges in acquiring skilled workers and what specific actions would you recommend the Federal Government take to help rural small businesses address these challenges?

Answer:

1. To clarify my answer, the challenges we face in recruiting are around technology workers more than our warehouse and customer service workers. Going back to my original testimony, with the help of the federal government to build better internet access and infrastructure, companies will attract more technology workers to these rural areas where they can work from home at least some days of the week. As I'm sure you are aware, the traditional 9-5 job is transforming to blended work environments in many of our industries where employees work with people remotely much of the time. Rural areas offer a better life-work balance, little to no commute, and more productive employees. However, if they cannot participate in real-time video conferencing and real-time collaboration they will not be attracted to rural areas where high-speed internet access and reliability is still a challenge.
2. Support more programs to promote innovation hubs like the one we are part of in nearby Coeur d'Alene Idaho. These innovation hubs bring together like-minded entrepreneurs and stimulate new businesses that can grow outside the main technology corridors.
3. Align education programs at the local levels to better align with current technology and business needs. I frequently interview new college graduates who feel compelled to spend the first 10-15 years of their career in a 'Big city' to make use of their college degree while expressing a desire to live and raise their family in rural areas like Northern Idaho without compromising their career.

Northern Forest Center
Thriving Communities
& Healthy Forests

May 24, 2017

Senator James E. Risch
United States Senate
Committee on Small Business and Entrepreneurship
Washington, DC 20510

Dear Senator Risch,

Thank you for the opportunity to provide testimony before the Committee on Small Business and Entrepreneurship on April 26, 2017, at the hearing entitled, *"The Challenges and Opportunities of Running a Small Business in Rural America."* I appreciate the committee's interest in this important topic and the attention on rural opportunities.

As I mentioned in my testimony and written submission, rural businesses and entrepreneurs face many challenges: affordable and accessible broadband, transportation infrastructure, workforce development, access to business technical assistance and capital, and more. Resources to overcome these challenges are harder to access in rural places and yet are critical to business success.

We look forward to continuing to lend our voice to provide concrete examples of successful deployment and use of federal programs, such as USDA Rural Development Rural Businesses Development Grants, HUD Community Development Block Grants, and US Treasury Community Development Financial Institution New Markets Tax Credits, to catalyze job creation and business development in the Northern Forest. These programs aren't duplicative or ineffective; they are the fundamental toolbox for rural economic development that states like New Hampshire and Idaho utilize to extend state services and enhance entrepreneurial activity.

Enclosed are responses to the questions for the record posed by Senators Hirono and Duckworth. Again, thank you for your leadership of the committee and for your support for rural small business and entrepreneurial development. Please feel free to contact me at (603) 229-0679 extension 115 with any questions.

Sincerely,

Rob Riley
President

Senate Committee on Small Business and Entrepreneurship Hearing
April 26, 2017
Follow-Up Questions for the Record

Questions for Mr. Rob Riley

Questions from:

Senator Hirono

Many people advocate for using public-private partnerships to promote investment in infrastructure. However, while these types of partnerships have existed for a long time, financing needed road and bridge maintenance and other initiatives have not been attractive opportunities.

QUESTION 1:

Do you have any experience with these partnerships in your area?

Funding for infrastructure through public-private partnerships has long been desired to address deferred maintenance in rural places. In the Northern Forest region in the past, we have seen private roads built for logging and trucking of harvested trees to be processed at local mills. The public has access to these roads but is dependent on the owner of the road for ongoing maintenance.

More recently, with the authorization of the Northern Border Regional Commission, federal funds are providing valuable resources with the expressed intent of investing in infrastructure. In fact, the Commission's statute mandates that 40% of grants made annually support community infrastructure. This unique funding source leverages other public programs such as the HUD Community Development Block Grants and other resources to fund necessary infrastructure needs.

One unique tool we have seen used with great success to increase private investment through public sector partnership is the New Markets Tax Credit program. While we have not helped to facilitate deals involving road and bridges, we have worked with partners to create deals to support forestland ownership, recreation infrastructure development, and forest products manufacturing. This unique tool provides, in specific distressed census tracts, a tax credit for investors in eligible projects, essentially bringing in new investors to rural places.

Another tool has been the USDA Community Facilities Program. This program does effectively connect public funding with local investment in community facilities. Other USDA programs support broadband deployment, business development and more, all of which are effective public-private partnerships utilizing regional intermediaries as technical assistance and financing partners.

In the Obama Administration, USDA Secretary Vilsack created a USDA Rural Opportunity Investment Initiative run by Matt McKenna. This office was established to establish relationships with large institutional investors and national foundations. This office saw some success in these efforts and hosted rural investment conferences, created a rural investment fund, and helped to bring attention to the investment opportunities in rural. Matt may have thoughts to share on this issue.

Private infrastructure funding, however, has tended to focus on different forms of infrastructure – water and sewer, ports, downtown development, and more – and less on roads and bridges, relying on state and federal sources to cover this important need. Whereas water and sewer have a capital payback period based on use and revenue, roads and bridges tend not to have a similar built in revenue model and are therefore not seen as investment opportunities in their traditional structure. Toll roads and bridges may have a future in the region where a unique public private partnership could be utilized, but it is not immediate.

QUESTION 2:

Were they successful in improving the local infrastructure for small businesses and entrepreneurs, particularly in rural communities?

The programs outlined above – Northern Border Regional Commission, USDA Rural Development programs, New Markets Tax Credit program, and more – all provide funding to leverage private investment in infrastructure in rural places and have resulted in positive business outcomes. Investment in broadband, transportation, and business supportive services are all necessary structural supports that create an entrepreneurial ecosystem and each find appropriate capital based on the revenue models. It is my opinion that highways and bridges are a core public sector investment required on every level of government.

Questions from:

Senator Duckworth

QUESTION 1:

Mr. Riley, in your testimony you discussed population decline and stagnation in rural communities, particularly in the Northeast region of the United States. As you may be aware, Illinois faces similar challenges related to an aging population and potential shortages of skilled workers to fill manufacturing jobs. In your experience, what obstacles have you confronted in recruiting and retaining talented new workers and how have you attracted these workers to rural areas?

Manufacturing used to be the lifeblood in many rural communities, where a high school graduate would be virtually guaranteed a well-paying job. This is no longer the case and finding and recruiting qualified employees for the jobs available is proving to be challenging as rural communities decline in population.

Professional management positions in manufacturing companies seem to slightly easier to fill through recruiters, whereas production workers are more challenging, partly due to the pay scale and the physical labor and monotony of the work required. Employers, however, tell us that increasingly, applicants do not have the communication, leadership, adaptability or conflict-resolution skills necessary for the modern workplace and higher technology CNC machines or other equipment. And, employers are increasingly finding that applicants are not passing drug tests. These issues are eroding the opportunity for business growth and expansion in some areas.

In the Northern Forest region, we have partnered with Manufacturing Extension Partnerships to assist companies to implement lean manufacturing strategies to allow them to produce more with fewer employee. In addition, building lean manufacturing to employ mass customization techniques can fully integrate consumer needs, inventory, lean manufacturing and order fulfillment and result in increased revenues per employee. In many cases the strategy is to do more, more efficiently.

Regarding wood products manufacturing, we have engaged the national Woodworker Career Alliance (WCA) and their Woodworker Skills Standards to help create a professional pathway for workers while offering employers customized training to their employees on specific tools and procedures. This program has also been extended to community and technical colleges for students in the trades. The WCA Passport program is a passbook outlining the individual's proficiency on multiple tools; it allows future employers assess the skills of graduates as they seek to hire and place them in the company.

We are just beginning to look more concertedly at recruiting workers to rural places. In some cases, the quality of the job is paramount to the potential employee. In other cases, the quality and condition of the local community is a key issue when employees are investigating opportunities. Communities that have quality school systems and heath care, access to affordable and accessible broadband, a strong downtown core and a diverse economic base have a higher likelihood of attracting and securing long term manufacturing employees. We have moved beyond the time when a job alone would bring and keep workers in rural communities; rural places must now examine a broader set of competitive offerings that will enable them to compete for quality employees.

QUESTION 2:

Mr. Riley, in your testimony you discussed challenges in recruiting and retaining skilled workers. In your view, what are the top three challenges in acquiring skilled workers and what specific actions would you recommend the Federal Government take to help rural small businesses address these challenges?

As mentioned above, the top three challenges include:

1. Employees lack the communication, leadership, adaptability or conflict-resolution skills necessary for success in today's business.
2. Prospective employees fail drug tests during their application process
3. Employers, based on increasing carrying costs such as health care, workers comp and others, are shifting these burdens to employees and eroding the consistency of the quality of the job.

Variable paychecks are resulting in employees dipping below the poverty line for certain months over the course of the year and not fitting the previous assumptions about those living on poverty throughout the year.

Fundamentally, the federal government has an important role to partner with the private sector, helping to create the conditions for rural business success. In some cases, this means providing funding to support business development programs that look beyond past approaches to consider that:

- Investment in entrepreneurial people is as important as capital investment. Many programs provide capital for specific business transactions, but few support the other tools necessary for entrepreneurial success. Just as in venture capital, investing in enterprising people is critical to build competency in rural places, which must dig deeper into their talent pool to fill leadership positions.
- Capitalizing on market opportunities requires integrated and collaborative solutions. Because they wear multiple hats in the community, rural people are naturally resourceful. However, the "project" funding available to rural places does not allow the flexibility they need to work in integrative, systemic ways to achieve results that last.
- Regional approaches are required to effectively connect rural and urban markets. In geographically large rural places with small populations, assembling the critical mass of people, ideas, resources and connections needed for success often requires working across sectors and geographic boundaries.
- Community-centered intermediary organizations are essential to successful rural community and economic development. These organizations engage the community in developing visions and solutions. They provide the technical and financial support to conceive and complete complex initiatives.
- Short term investments will not yield desired long-term results. Many government and financial resources available to rural places miss this reality. Those who want lasting solutions must recognize the need to be patient investors committed for the longer term.
- The entry thresholds for investments often lock out rural players. Rural organizations often cannot operate at the numerical threshold – e.g., deal size, jobs created, population served – that investors require. For federal funding, meeting local match requirements can be a barrier to entry.
- Rural projects are often of a smaller scale than investors seek. Investors typically are looking for "scale" – large numbers and volume. In rural, a project's progress from its starting point is more important than its size. Indeed, well-structured rural investments can provide rates of return comparable to those in urban areas.
- Investors in rural must have a different expectation for return on capital. The expectations for return must go beyond financial to include a broader range of rural outcomes – natural, social, economic and infrastructure – that are essential to building thriving rural-urban markets over time.

Each of these principles has a direct bearing on supporting rural business and entrepreneurs and, if deployed properly can help unleash the latent potential across rural America.