

**Fostering Entrepreneurship  
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Thank you for inviting me to join you today, and thank you for the kind introduction. It's an honor to be here with so many leaders from throughout West Virginia.

Since joining the Richmond Fed last year, I've made it a priority to travel our District, which spans from Maryland to the Carolinas and includes most of West Virginia. I've seen small towns that represent the best of what our country has to offer. But I've also seen many communities that have lost ground. They deserve our attention, and I think the Richmond Fed has a real opportunity—and responsibility—to improve our understanding of the challenges they face and to search for ways to make a difference. To that end, we've spent the past year talking to business leaders, educators, community leaders and residents to learn what it will take to move the needle in smaller communities. Today, I'll share some of what we've learned, in particular about the potential to foster entrepreneurship.

Before I say more, I have to note that the views I express are my own and do not reflect the views of my colleagues on the Federal Open Market Committee (FOMC) or in the Federal Reserve System.<sup>1</sup>

## **Moving the Needle**

Let me start with a few words about the economy. If you look at the data, the national economy appears great. Unemployment is at 50-year lows, GDP growth is solid and consumers feel confident and are spending. International economies are weaker, though, and uncertainty—particularly around trade—is elevated. Business investment dropped in the second quarter. In that context, and with the risk of inflation muted, the FOMC decided earlier this month to make a mid-cycle reduction in interest rates, with the goal of providing a little insurance for the continued growth of the economy and strength of the labor market. We are monitoring its impact.

In West Virginia, I've been pleased to see recent growth. Employment growth started to accelerate at the beginning of 2018, although this growth has not been evenly distributed across counties. During the first quarter of 2019, personal income grew 5.6 percent, the fastest rate in the country. Some of this growth is due to temporary jobs, such as those in pipeline construction, but some is due to employers such as Toyota and Hino expanding recently.

At the same time, we all know West Virginia faces a number of challenges. The unemployment rate is elevated relative to the rest of the country—at 4.7 percent, it's a full percentage point higher than the national rate. The employment-to-population ratio, which accounts for both unemployment and labor force participation, is the lowest in the country at 51 percent. And we are all too familiar with the ravages of the opioid epidemic.

What can be done to help West Virginia address these challenges and build on its recent growth?

We believe there are four themes that matter if you want to move the needle.

The first is education, or more broadly, preparing people to enter the workforce. In the United States, 35 percent of urban residents between the ages of 25 and 64 have a four-year degree, compared with 22 percent of people in smaller towns. The rate is 21 percent across all of West Virginia. All else equal, the Richmond Fed has estimated that if educational attainment in small towns equaled that of bigger cities, the employment-to-population gap in our District would shrink by 40 percent.

Of course, we can't just send more kids to college, because roughly 40 percent of those who enroll don't graduate.<sup>2</sup> Also, a four-year college isn't the right fit for everyone, and there are well-paying jobs that don't require a degree. So we're intrigued by the growing number of business partnerships with high schools and community colleges that allow students to choose the path that's best for them. And I'm encouraged by growing state support for community colleges, such as the new West Virginia Invests program. We also have to focus on preparing students for college and the workplace. That begins even before kids enter kindergarten, with high-quality early childhood education. I know West Virginia has invested in that.

Second, we're looking at addressing the effects of geographic isolation. By this, I don't mean that there aren't strong social networks in small towns—the opposite is often true. But there may be informational and institutional gaps that don't exist in larger cities. For example, it might be

more difficult to learn about training opportunities in other places. Or if you live in a town where fewer adults have gone to college, you might not view college as a viable option for yourself.

One major issue is the loss of “anchor institutions,” such as hospitals and schools. Almost a dozen hospitals have closed across the Fifth District since 2010.<sup>3</sup> Here in West Virginia, hundreds of schools have closed their doors since the early 1990s. These institutions provide civic leaders and highly educated workers who can raise the aspirations of those around them. They invest in their communities. They supply amenities that attract talent. They signal a community’s vibrancy to potential business owners and residents. So when one closes, much more than jobs are lost.

Third, we’re studying barriers to participation, such as addiction and disability. I mentioned the opioid epidemic a few minutes ago. In the Fifth District, average opioid prescription rates are almost 30 percent higher in smaller towns versus bigger cities, and overdose death rates are higher as well. There’s no easy solution, but there are promising addiction-to-work programs that help mitigate the effects of addiction. Similarly, we’re studying disability-to-work incentives. This insurance is a vital safety net for many people, but rural residents are more likely to receive disability insurance than urban residents and the rates increased significantly during the last downturn.

Finally, we’re looking at connection, by which I mean facilitating workers’ access to good jobs. This will be my focus today because, at the end of the day, people need places to work. Today’s tight labor market presents a great chance to connect more people to jobs, including people who

might have had difficulty finding employment in the past. But a more rural state like West Virginia faces some unique challenges when it comes to attracting large employers. So how do we get more West Virginians off the sidelines of the labor force? I believe that supporting rural entrepreneurs—understanding the unique obstacles they face and working to remove those obstacles—may be a way to help rural communities get more in the game.

### **Entrepreneurship and Economic Growth**

Before I discuss what policymakers might do to encourage entrepreneurship, let me make the case that entrepreneurship matters for growth. Entrepreneurs do more than just create jobs for themselves. Evidence strongly suggests that increases in entrepreneurship boost not only the number of people who are self-employed, but also the number of people employed overall in a local market.<sup>4</sup> Nationwide, small businesses account for more than 60 percent of net jobs created each year.<sup>5</sup>

It's true that the most dramatic job growth comes from transformational, high-growth firms—the companies that eventually grow into a Microsoft or a Google.<sup>6</sup> But researchers at the Atlanta Fed concluded that a higher percentage of employment in small, locally owned businesses is associated with higher employment overall, greater income growth and lower poverty rates.<sup>7</sup>

Of course, increasing entrepreneurship isn't a silver bullet to creating economic prosperity. But it is an important piece of the puzzle, particularly in more isolated areas where attracting a large outside employer is a remote possibility and many working-age people are in need of work. There are benefits beyond jobs as well. When a community grows its own economic

development, it puts residents in charge of strengthening and diversifying their own economy, thereby increasing economic resilience in the face of global economic forces.

Over the past several decades, however, entrepreneurship has declined in the United States. The startup rate—the share of incorporated firms that are less than a year old—fell from almost 14 percent in the late 1970s to 8 percent in 2016. And the self-employment rate, including both incorporated and unincorporated businesses, has dropped from 12 percent of employment in the mid-1990s to just under 10 percent in 2015.

What is behind this trend? Some point to demographic changes, such as a decline in the number of immigrants—who typically have higher rates of self-employment—or slowing population growth overall.<sup>8</sup> It's also possible that the fixed costs of starting a business, such as meeting an array of regulatory requirements or making the technology investment required to compete, have increased over time.<sup>9</sup> The dominance of big-box retailers or risk aversion in the wake of the Great Recession are other factors that could be at play.

The decline has been widespread geographically, and West Virginia is no exception. Over the past 30 years, the startup rate in West Virginia has fallen more than in the country as a whole, and in 2014, it was nearly 3 percentage points below the national average. West Virginia has ranked in the bottom 10 states for self-employment in 23 out of the last 25 years.<sup>10</sup> And the state ranks last for the average number of jobs created by startups in their first year, at just under three per 1,000 people.

At the same time, I believe West Virginia has several things going for it that make it ripe to promote entrepreneurship. The cost of doing business here is relatively low. In addition, you already have a foothold in several industries that are predicted to have large increases in self-employment over the next few years, such as personal care services, construction and health care support. Construction in particular has shown very strong growth over the past year, although that could slow since pipeline construction has stopped. Finally, you've got people on the sidelines and—counterintuitively, perhaps—that's a leading indicator of entrepreneurial activity.

### **Fostering Entrepreneurship in West Virginia**

How can we harness those strengths to create tangible change? What does it take to create an environment that supports aspiring business owners and helps their businesses thrive? We've had a number of conversations with entrepreneurs and community development professionals throughout the Fifth District and specifically in West Virginia. We've heard a lot is underway that could be supported by three key themes. Entrepreneurs need a stronger infrastructure platform, they need better access to capital and they need a richer community around them.

#### *Infrastructure*

Let's start with infrastructure. For entrepreneurs and small businesses to succeed, they need to either get their goods and services to their customers or bring their customers to them.

Historically, and to some extent today, West Virginia's geography has made transportation a challenge. But the development of the highway system in Appalachia has boosted West Virginia's access to markets and increased jobs in professional services, tourism, education and health services. And when a critical portion of the highway system connecting Northern Virginia

to West Virginia is completed, it's forecasted to generate almost 2,000 new jobs. In addition, the 2017 Roads to Prosperity amendment represents a massive commitment by West Virginians to develop the state's highways. I'm hopeful these projects will enable growth.

Today, of course, businesses don't necessarily need a physical road to reach their customers: The highway of the 21st century is broadband. With broadband, a small business can reach exponentially more customers and suppliers. They get access to information and expertise. With broadband, you can run any kind of business anywhere.

Measurements of broadband access are notoriously inaccurate. So while we know there is a digital divide, it's hard to know just how big this divide is. Still, it seems clear that West Virginia is on the wrong side of it. From 2013-17, more than one-quarter of West Virginia households—a higher percentage than in all neighboring states—had no internet subscription at all, broadband or otherwise. Here in Greenbrier County, nearly 30 percent of households have no internet access.

The biggest barrier to broadband is cost. The issue is twofold. First, it's expensive to build new infrastructure in areas with low population density and challenging terrain, and the costs to internet service providers may outweigh their returns. But even if broadband is available, not every household can afford it. This is evident here in West Virginia, where less than half of all households making below \$20,000 annually have a broadband subscription but 90 percent of households making at least \$75,000 annually have one.

How can we overcome the cost barrier? New funding has been made available in the past year and a half to communities in West Virginia.<sup>11</sup> But these communities need accurate data on who is unserved or underserved, and they need connections to the resources that are available to help them access this funding. The West Virginia Broadband Enhancement Council is working to provide accurate data and is helping communities connect to local and national resources.

In the meantime, communities have come up with some inventive ways to get internet access to those who don't have it or can't afford it. The Kanawha County Public Library, for example, just rolled out a mobile hot spot device that can be checked out for two weeks. Essentially, anyone who doesn't have access to internet at home can take it with them.

It seems to me that closing the divide is an entrepreneurial exercise in itself. It's going to take individuals in West Virginia coming up with creative, local solutions to get broadband to people through public/private partnerships and local cooperatives. It's going to take people starting businesses that get computers and technology to people who need them. And it's going to require new ways to deliver digital skills training so that communities can fully realize the potential that broadband offers.<sup>12</sup>

### *Financing*

Capital is critical to entrepreneurs and small businesses—and it can be hard to come by in smaller towns. A report by the National Community Reinvestment Coalition found that every county in West Virginia could be considered a small business lending “desert,” where only a very small proportion of small businesses receive loans. Community development financial

institutions, or CDFIs, can step in to bridge the gaps left by traditional banks, but there is relatively little CDFI funding here. Between 2010 and 2016, less than 2 percent of CDFI funding in the Fifth District was in West Virginia. The good news is, there are groups looking to invest in this state, including federal grant programs, venture capital firms and angel investor networks. For example, West Virginia Forward has published an “entrepreneur’s toolkit” that includes 100 different ways entrepreneurs can find the capital they need to realize their goals. I believe that if we have some initial successes, more investors will be drawn in. Success begets success.

The challenge, of course, is accessing this capital. Trying to sift through the myriad of financing sources, each with separate eligibility requirements and application processes, all while trying to start a business, is a daunting task. I’m encouraged by programs like the West Virginia Hive in nearby Beckley, which provides one-on-one coaching to educate entrepreneurs about their financing options, among other things. And because entrepreneurs in West Virginia often can’t walk down the street and bump into other entrepreneurs, as their urban counterparts can, the Hive also routinely brings together new and future business owners from the area to trade stories and share ideas. This is just one of many programs in West Virginia working to support startups.

### *Ecosystem*

This brings me to the third theme. If we want people to become successful entrepreneurs, we need to provide them with a startup environment. That includes business and technical assistance, a startup-friendly culture and a quality workforce. It begins with exposure to successful entrepreneurs. As I said at the beginning, family, friends, neighbors and coworkers play a fundamental role in people’s aspirations and decisions about education and work. We

need to promote role models so that a high school student sees entrepreneurs and thinks, “I can do that. That could be me.” This exposure can include coaching, both formal and informal, like that provided at the West Virginia Hive.

Entrepreneurs also need technical assistance, which could include support in writing business plans, applying for patents, conducting market research or, as I’ve mentioned, applying for funding. Incubators and community college programs often serve as the connective tissue in communities that don’t have a high concentration of entrepreneurs. For example, Eastern West Virginia Community and Technical College operates the NewBiz Launch Pad accelerator program and the Institute for Rural Entrepreneurship and Economic Development, which supports new businesses in agriculture, manufacturing, arts, tourism and technology.

It’s also important to foster regional collaboration so that such efforts can scale. I recently visited a region in the Fifth District where economic development efforts have stalled because neighboring cities view them as a zero-sum game. That’s not the way to build a thriving region.

Finally, a skilled workforce is critical. You need people who have the skills to create and run a business, and they need people to hire. Here in West Virginia, the low employment-to-population ratio implies that there is no shortage of people available to work. But it’s also the case that many of these individuals face the obstacles to employment I discussed at the outset, such as addiction, disability or low educational attainment. Tackling these interrelated obstacles is easier said than done and will require innovation and cooperation among employers, schools, health care providers and policymakers. But there’s great experimentation going on—for example, I

recently learned of an employer who offers addiction treatment to job applicants who fail their drug tests.

### **Where It's Working**

Nothing I've described so far is simple. But it can be done, and we've seen it done in Taylor County, roughly 40 miles south of Morgantown. Unemployment and poverty are both lower in Taylor County than in West Virginia or Appalachia as a whole and are trending down. And it's not because they lured some big employer away from a neighboring town or state: Nearly one-third of the job growth in Taylor County since the Great Recession is accounted for by self-employment. Over the past five years, Taylor County has seen 27 percent growth in new businesses, the second-fastest growth in the state. That is 221 new businesses in a county of just under 17,000 people.<sup>13</sup>

The county has some natural advantages. Proximity to Morgantown might provide easier access to the resources a college town provides; and it's not too far east of Highway 79. Still, I think much of Taylor County's success can be explained by the themes I've described today.

In 2014, the town of Grafton in Taylor County was one of the first communities to participate in Turn This Town Around, a one-year campaign intended to help West Virginians identify and resource projects that would make a big difference in their communities—from cleaning storefronts, to building walking trails, to creating a community garden. After that program ended, Grafton launched its own group, All Aboard Grafton, to maintain the momentum. The connection to entrepreneurship might not be immediately obvious, but these initiatives created a

local network of committed residents who met weekly to share ideas, make plans and reinvigorate their community. That created an environment where people were striving for more and were more able and willing to take risks. As I said, success begets success—it doesn't matter if the first success is clean windows.

Three years after “Turn This Town Around,” Grafton was selected to participate in the Energizing Entrepreneurial Communities Program (E-Communities). This is a three-year program designed to encourage entrepreneurs and businesses. A critical part of this program is that the community is paired with a coach who, among other things, talks with local entrepreneurs to find out what the community needs and connects the community to resources, including funding sources and peers and experts across the state.

Stories like that of Taylor County make me hopeful. Communities have within themselves the ability to grow. All they need is a little support. Thank you, and now I welcome your reactions and questions about entrepreneurship or about the economy more broadly.

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<sup>1</sup> Thank you to Abigail Burns, Nina Mantilla and Jessie Romero for assistance preparing these remarks.

<sup>2</sup> Graduation is defined as obtaining a bachelor's degree within six years of matriculating.

<sup>3</sup> This number does not include Washington County Hospital in North Carolina, which closed in February 2019 and reopened in May 2019.

<sup>4</sup> Zoltan Acs and Catherine Armington, “[Employment Growth and Entrepreneurial Activity in Cities.](#)” *Regional Studies*, 2004, vol. 38, no. 8, pp. 911-927.

<sup>5</sup> The Small Business Administration defines a small business as one with fewer than 500 employees.

<sup>6</sup> Ryan Decker, John Haltiwanger, Ron Jarmin, and Javier Miranda, “[The Role of Entrepreneurship in U.S. Job Creation and Economic Dynamism.](#)” *Journal of Economic Perspectives*, Summer 2014, vol. 28, no. 3, pp. 3-24.

<sup>7</sup> Anil Rupasingha, “[Locally Owned: Do Local Business Ownership and Size Matter for Local Economic Well-being?](#)” Federal Reserve Bank of Atlanta Community and Economic Development Research paper no. 01-13, August 2013.

<sup>8</sup> Steven F. Hipple and Laurel A. Hammond, “[Self-Employment in the United States.](#)” Bureau of Labor Statistics *Spotlight on Statistics*, March 2016; and Fatih Karahan, Benjamin Pugsley, and Ayşegül Şahin, “[Demographic Origins of the Startup Deficit.](#)” National Bureau of Economic Research Working Paper no. 25874, May 2019.

<sup>9</sup> Nicholas Kozeniauskas, “[What's Driving the Decline in Entrepreneurship?](#)” Manuscript, January 2018.

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<sup>10</sup> Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles and J. Robert Warren. [\*Integrated Public Use Microdata Series, Current Population Survey: Version 6.0\*](#) [dataset]. Minneapolis, MN: IPUMS, 2018.

<sup>11</sup> West Virginia Broadband Enhancement Council, "[2018 Legislative Report](#)," December 31, 2018.

<sup>12</sup> Jeremy Hegle and Jennifer Wilding, "[Disconnected: Seven Lessons on Fixing the Digital Divide](#)," Federal Reserve Bank of Kansas City Community Affairs Department, July 2019.

<sup>13</sup> Data accessed July 12, 2019.