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Congress of the United States

U.S. House of Representatives

Committee on Small Business

2361 Rayburn House Office Building

Washington, DC 20515-6315

TO:	Members, Committee on Small Business
FROM:	Nydia M. Velázquez, Chairwoman
DATE:	October 8, 2019
RE:	Field Hearing: Silicon Prairie: Tech, Innovation, and a High-Skilled Workforce in the Heartland

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The Committee on Small Business will hold a hearing entitled, "Silicon Prairie: Tech, Innovation, and a High-Skilled Workforce" on Monday, October 8, 2019 at 10:00 a.m. in the Dr. Thomas R. Burke Technical Education Center at Kansas City Community College, 6565 State Ave, Kansas City, KS 66102.

Traditional technology startup hubs such as the San Francisco Bay area, New York, and Cambridge, Massachusetts are no longer the only centers of innovation, information technology, and computer science. Since the financial crisis, the Midwest has been the center of a tech boom that is fueling job creation and economic growth. However, small businesses have a disproportionately difficult time attracting a skilled workforce compared to their larger counterparts, limiting their ability to expand and create jobs. This hearing will examine the current state of the high-tech small business workforce and their challenges, particularly for startups and entrepreneurs located outside of technology hubs. It will also provide an opportunity for small business owners and experts to provide innovative solutions to combat the small business employee shortage.

Witnesses

Panel One:

- Mr. David Toland, Secretary, Kansas Department of Commerce, Topeka, KS
- Ms. Delía García, Secretary, Kansas Department of Labor, Topeka, KS
- Mr.Thomas Salisbury, Regional Administrator, Region VII, Small Business Administration, Kansas City, MO

Panel Two:

- Ms. Neelima Parasker, President and CEO, SnapIT Solutions, Overland Park, KS
- Mr. Ruben Alonso III, President, AltCap, Kansas City, MO
- Ms. Tammie Wahaus, CEO, Elias Animal Health, Olathe, KS
- Mr. Brad Sandt, President & CEO, Menlo, K12itc, Civic ITC, Kansas City, MO
- Mr. Daniel Silva, President & CEO, Kansas City Kansas Chamber of Commerce. Kansas City, KS

Background

For many years, people have assumed the best place to run a tech startup was in the San Francisco Bay Area, New York, or other coastal cities. But given the recent problems of skyrocketing living expenses, tech startups are moving to places that can accommodate the lifestyle of their employees for a significantly cheaper cost. Today, middle America is developing into a thriving hub of tech innovation. Thanks, in part, to cheaper living expenses and public and private investment such as the Small Business Innovation Research (SBIR) Program, Growth Accelerators, and fiber optic internet connection, cities such as Kansas City and Lincoln, Nebraska are seeing a sizeable uptick in startups, tech ventures, and private equity investments.

While the Midwest startup ecosystem has had consistent success for decades across many industries including manufacturing and health information technology, increased venture capital (VC) is flooding the market and the cost of doing business remains significantly lower than its coastal counterparts. From rent, to labor and lower employee turnover, the heartland provides reliable business growth opportunity without compromising the quality of talent. The Midwest is home to some of the country's top universities for tech talent, while also providing tech opportunities for so-called "mid-tech" jobs that do not require four-year college degrees. This provides opportunities for workforce development programs such as tech apprenticeships, job training programs, and industry recognized credentials to train the workforce outside of colleges and universities.

However, tech workers are already in high demand and small businesses in these regions are facing the same challenges as other parts of the country, namely bridging the skills gap and finding, hiring, and retaining qualified workers. While investment in the heartland is poised to hit record highs, the inability for small firms to build a reliable workforce potentially weakens the deployment of that capital.[1] This hearing will explore the opportunities for investment in the Midwest, assess how the SBA can bolster innovation in the region, and review the workforce development programs that can provide skilled labor to startups in the tech industry.

The State of High-Tech Small Businesses in Kansas

Investments in high speed internet alongside a more affordable cost of living, and access to talented workers has attracted entrepreneurs, capital, and high-tech startups to the Midwest. In Kansas City, the number of SBA loans in 2018 increased with the number of STEM jobs available in the area. Across 391 loans totaling $160,288,944, 78,750 STEM jobs have been created in the region.[2] Furthermore, the number of incubators and accelerators in the city nearly double that of St. Louis, which has both a higher population and greater VC funding. According to the 2018 State of the Silicon Prairie Report, Kansas City received an A in "Cool Jobs" (STEM Jobs) and an A in "Connectivity," due to the investment by Google Fiber, which brought gigabit internet speed to the city.[3]

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[1] Pete Wilkins, *Why The Midwest Drives Top Venture Returns*, FORBES, May 16, 2019, https://www.forbes.com/sites/peterandrewwilkins/2019/05/16/why-the-midwest-is-among-the-best-places-for-venture-investment/#533615c54742 (last visited Sep. 26, 2019).

[2] SILICON PRAIRIE NEWS, *2018 State of the Silicon Prairie Report*, Feb. 1, 2019, http://siliconprairienews.com/wp-content/uploads/2019/02/SPN_StateOfThePrairie2018.pdf (last visited Sep. 26, 2019).

[3] *Id.*

Given these incentives, Kansas City ranked No. 9 out of the top ten best cities for startups.[4] In one metric, Kansas City ranked as the number 1 spot for startup growth rate, with an estimated 6.2 percent increase in startups in 2018 compared with the previous year.[5] In addition, the city has experienced a 29 percent boost in engineering, computer, and science jobs over the last five years.[6] The biggest weakness appears to emerge from the lack of VC funding, which is trailing behind other big cities in the Midwest. This lag in VC funding is potentially due to the lack of high- and mid-skill tech talent in the area.

Attracting and Creating a High-Skilled Workforce

While the Midwest is already home to 60 percent of all U.S. manufacturing, 25 percent of computer science graduates, and 150 Fortune 500 companies, investment has grown remarkably in the past few years.[7] From 2016 to 2018, VC funding activity in the region has grown 28 percent; however, this is largely concentrated in the largest cities.[8] Chicago, Minneapolis, and St. Louis have received the lion's share of this VC money, while Kansas City came in fourth, significantly separated from the top three.[9] Altogether, a record $4.8 billion was invested in the region in 2018, that number is expected to grow in the coming years.[10]

Workforce Issues in the Silicon Prairie

The struggle for many companies in Missouri and Kansas is not the number of workers, but rather the skill of those workers. Many engineering firms and IT firms simply cannot find the people they are looking for to fill job openings. While 53 percent of Missouri jobs require more than a high school degree but less than a four-year degree, only 46 percent of workers meet those criteria, according to the Workforce 2030 report by the Missouri Chamber of Commerce.[11] Furthermore, employers complain about the lack of "soft skills," such as dependability, honesty, professional behavior, and communication.[12]

The skills gap is not the only problem. The U.S. workforce is also on the edge of a demographic crisis. Baby Boomers retiring in the coming years will outnumber those expected to replace them. Furthermore, while the labor force has grown nationally since 2009, Kansas' labor force has shrunk from 1,525,000 in 2009 to about 1,480,000 today.[13] To control this problem, it must not

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[4] Leslie Collins, *KC Trails Only Austin in this One Key Startup Category*, KANSAS CITY BUSINESS JOURNAL, Jun. 21, 2019, https://www.bizjournals.com/kansascity/news/2019/06/21/kc-ranks-high-on-best-american-cities-for-startups.html (last visited Sep. 26, 2019).
[5] Wilkins, *supra* note 1.
[6] Collins, *supra* note 4.
[7] Zachary Crockett, *Life in the Silicon Prairie: Tech's Great Migration to the Midwest,* THE HUSTLE, Jun. 9, 2018, https://thehustle.co/life-in-the-silicon-prairie-techs-great-migration-to-the-midwest/ (last visited Sep. 26, 2019).
[8] SILICON PRAIRIE NEWS, *2018 State of the Silicon Prairie Report*, Feb. 1, 2019, http://siliconprairienews.com/wp-content/uploads/2019/02/SPN_StateOfThePrairie2018.pdf (last visited Sep. 26, 2019).
[9] *Id.*
[10] Wilkins, *supra* note 1.
[11] MO CHMBR. OF COMMERCE, Workforce 2030: A Call To Action, 2019, http://mochamber.com/wp-content/uploads/2018/05/Workforce2030.pdf (last visited Sep. 26, 2019).
[12] Anna Yakutenko, Report: Missouri Employers Struggle to Find Qualified Workers, KCUR, Jun. 9, 2018, https://www.kcur.org/post/report-missouri-employers-struggle-find-qualified-workers#stream/0 (last visited Sep. 26, 2019).
[13] KU INSTITUTE FOR POLICY & SOCIAL RESEARCH, *Kansas State Data Center*, https://ipsr.ku.edu/sdc/region.php?area=Kansas&tab=3 (last visited Sep. 26, 2019).

only train its existing workforce, but attract more workers to the area. Many of these jobs require vocational training over four-year degrees. The report recommends short-term educational opportunities in credentials for high-demand skills and aligning schools' curriculum with the needs of industries.[14] The Kansas City Chamber of Commerce concluded that the workforce challenges were the greatest threat to the local economy.

Workforce Development Programs to Address the Skills Gap

An increased focus has been put on Career Technical Education or CTE. This is a concentration available for high school students designed to prepare students for work after graduation. It provides market value skills alongside the high school diploma, such as college credit, industry-recognized credentials, career experiences such as robust job shadowing and internships, and entrepreneurial experiences. Students who participate in CTE programs with exposure to these market value assets typically are more likely to enroll and complete either degree- or non-degree-bearing postsecondary education and training.[15] They are also trained in one of six specific industry sectors: Life Sciences, Finance & Insurance, Information Technology, Advanced Manufacturing, Architecture & Engineering, and Supply Chain Logistics.[16]

Additionally, post-secondary education programs that are not full four-year degrees, such as apprenticeship, job training programs, and industry recognized credentials are more needed than ever. These programs are referred to as "middle-skills," or when referencing tech-related jobs "mid-tech" which make up about 23 percent of tech jobs in Kansas City.[17] The Kansas City Chamber is working with businesses, regional nonprofits, and educational institutions to train new workers for the skills they need to be successful in the silicon prairie. The hearing will highlight a number of these programs and initiatives.

Small Businesses and Workforce Development

Small businesses can be the most vulnerable to negative effects of not being able to attract, retain, and hire talented workers. Small firms simply do not have the human resource departments to handle the ever-changing needs nor do they have the capacity to provide extensive on-the-job training required to upskill workers to meet their needs. Yet, because of their ability to be nimble and flexible, it also provides an opportunity for small firms. Often, small business owners serve in multiple rolls—CEO, HR, legal, accounting, and marketing. This allows the small business owner the ability to make timely and efficient decisions that facilitate the quick implementation of new strategies. Additionally, policies can be more easily altered to allow the hiring of traditionally hard to place workers, such as long-term unemployed, persons with criminal records, and youth.

Thus, there is an opportunity for federal programs to fill the gap in funding and workforce needs of small businesses. Through investment and innovation transfer programs, ideas can make their ways from research departments in universities to the hands of entrepreneurs that can spread that innovation through the market.

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[14] MO Chamber, s*upra*, note 11.
[15] MID-AMERICA REGIONAL COUNCIL, *Career & Tech Education in Greater Kansas City*, Nov. 2017, http://www.kcworkforce.com/Assets/reports/CTEReport.pdf?pdf=CTE (last visited, Sep. 26, 2019).
[16] *Id.*
[17] Brian Kaberline, *Kansas City, Midwest Attract Wave of Blue-Collar Tech Jobs*, KANSAS CITY BUSINESS JOURNAL, Feb. 26, 2018, https://www.bizjournals.com/kansascity/news/2018/02/26/kansas-city-midwest-attract-wave-of-blue-collar.html (last visited Sep. 26, 2019).

Policies and Programs to Attract Capital and Meet the Employment Needs of Small Businesses

Small Business Innovation Research (SBIR) & Small Business Technology Transfer (STTR)
Technology and innovation in the Silicon Prairie has come from public investment as well as private. To encourage startups in technology and innovation research, the Small Business Innovation Research (SBIR) program requires agencies with an extramural Research & Development (R&D) budget greater than $100 million are required to allocate a portion of that funding to conduct a multi-phase R&D grant program for small business. The objectives of the SBIR program include stimulating technological innovation; increasing the use of the small business community to meet federal R&D needs; fostering and encouraging participation in innovation and entrepreneurship by socially and economically disadvantaged individuals; and expanding private-sector commercialization of innovations resulting from federally funded R&D.

The Small Business Technology Transfer (STTR) Program is largely modeled after the SBIR program and seeks to facilitate the commercialization of university and federal R&D by small companies. Under this program, each federal agency with extramural R&D budgets of $1 billion or more is required to allocate a portion of its R&D funding to conduct a multi-phase R&D program for small businesses. It provides funding for research proposals that are developed and executed cooperatively between a small firm and a scientist in an eligible research institution and that are aligned with the mission requirements of the federal funding agency.

Both these programs have a high potential for job creation and growth by small businesses. They create jobs as a result of the seed capital provided to entrepreneurs and through funds that enable an existing company to expand its operations. In both cases, data indicates that jobs are retained after the SBIR funding has been expended. For thousands of small firms, the SBIR awards create both jobs related to completing the requirements of an SBIR contract and sustainable jobs associated with a new product that is the outcome of research and development funded by the grant.

Additionally, for existing companies, SBIR awards enable research firms to make new hires and provide funding for early stage research. By facilitating high-risk, high-reward research, these contracts have contributed to new innovation and resulted in job gains. Small medical companies have previously testified before the Committee that support from investors is often tied to the development and commercialization of their companies' lead therapies and technologies. Because of these restrictions, companies are often unable to use support from investors to explore promising early stage research. SBIR contracts can provide small companies with funding for promising research that is outside of a company's primary focus.

Growth Accelerators and Business Incubators
Business accelerators are organizations, in various formats, that offer a wide range of support services and funding opportunities for early stage companies. They generally follow the model of enrolling startups in months-long programs that offer mentorship, office space, and critical supply chain resources. Most importantly, business accelerator programs offer access to capital and investment in return for startup equity which helps participating business remain viable.

Accelerators can provide vital information that business angels and venture capitalists need for diversifying their portfolios of high-potential companies. They give young enterprises an opportunity to build networks, with both peer ventures and mentors, who might be successful entrepreneurs, program graduates, venture capitalists, angel investors, or even corporate and non-profit executives. Most accelerator programs end with a culminating demonstration day, also referred to as "demo day" where ventures pitch to a large audience of qualified investors with the hopes of getting more funding.

The Committee just passed H.R. 4387, which codifies the Growth Accelerator Fund Competition for four years and authorizes $2 million in funds per year. In its fifth round of funding, the competition brings together the nation's most innovative small businesses and startups to compete for prizes of $50,000 each. The Growth Accelerator Fund Competition aims to spur small businesses' innovation and raise their presence in federal research and development efforts particularly in rural parts of the country.

Accelerators certainly are similar to incubators, but incubators nurture young ventures by providing a buffer for them from the environment to allow them to grow without other disturbances. They usually last longer and the selection process is generally noncompetitive with the venture stage occurring either at the early or late stage. Kansas City has a number of technology incubators and accelerators, many of which are held on college campuses or in hubs around the city. For instance, the Entrepreneurship & Workforce Center, located at the Dr. Thomas R. Burke Technical Education Center, provides expansive services for startups. Their goal is to help turn ideas into revenue and revenue generation into a systemized process that leads to growth and sustainability. They provide services for anything a business may need, from business plan consulting, development, and review, to employee development, retention and workforce initiatives, to marketing and sales advice.

Federally Recognized Apprenticeships and Federal Training Programs

Federally recognized apprenticeships consist of both on-the-job training and classroom experience that can provide workers with the skills needed to participate in skilled-work and consist of both on-the-job training and classroom experience to develop the skills of potential employees. Apprenticeships are particularly helpful for individuals who have not attended a 4-year college but are seeking a more technical job. These programs often last at least two years and give workers training in both hard and soft skills they need to do their job well.

There are several federally funded employment and training programs that serve an important role in our society by helping job seekers enhance their job skills and obtain employment. Many of these programs directly or indirectly assist small businesses. Programs like the One-Stop Career Centers and Trade Adjustment Assistance help train and upskill workers without forcing them to go back to a 4-year college or university. One-Stop Career Centers can provide employment services and training through regional career centers. These centers can serve youth, adults, and dislocated workers, many of whom are small business owners.

The Department of Labor (DOL) also recently released a Notice of Proposed Rule Making (NPRM) to establish an Industry Recognized Apprenticeship Program.[18] The NPRM seeks to formally establish a process for organizations to apply to become DOL-recognized Standards Recognition Entities (SREs) of Industry Programs. Once recognized, SREs would work with employers and other entities to establish, recognize, and monitor high-quality Industry Programs that provide apprentices industry-recognized credentials. The proposed rule includes measures and guidelines to facilitate the recognition of these high-quality Industry Programs.[19] The NPRM is aimed at addressing America's skills gap and expand apprenticeship model to new industries, many of which are emerging small firms. This hearing will also allow Members to further explore ways to get the SBA more directly involved in these programs to provide a direct pipeline for workers to small businesses who need more employees

Conclusion

While a low cost of doing business, lower housing and livings costs, and high speed can stimulate business creation and growth, an adequate workforce is needed to fill those positions and sustain the prosperity. Facing a tight labor market and growing skills gap, especially in Kansas City, small businesses in technology and computer science, need access to mid- to high-skilled workers to help grow their business. Although there are challenges to attracting, maintaining, and training existing workers, local businesses, chambers of commerce, and community colleges are working on just that. Through apprenticeships, job training programs, and industry recognized credentials, the skills gap can be filled and the demand for jobs spurred by local investment and innovation can be met.

[18] U.S. DEP'T OF LABOR, *Industry-Recognized Apprenticeship Program*,https://www.apprenticeship.gov/industry-recognized-apprenticeship-program (last visited Sept. 27, 2019)
[19] *Id.*