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A RECORD SIX MILLION U.S. JOB VACANCIES: REASONS AND REMEDIES

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED FIFTEENTH CONGRESS

FIRST SESSION

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A RECORD SIX MILLION U.S. JOB VACANCIES: REASONS AND REMEDIES

WEDNESDAY, JULY 12, 2017

UNITED STATES CONGRESS,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The Committee met, pursuant to call, at 10:00 a.m., in Room 2020, Rayburn House Office Building, Hon. Pat Tiberi, Chairman, presiding.

Representatives present: Tiberi, Paulsen, Schweikert, LaHood, Rooney, Maloney, Delaney, and Beyer.

Senators present: Heinrich, Peters, and Hassan.

Staff present: Breann Almos, Theodore Boll, Whitney Daffner, Connie Foster, Colleen Healy, Paul Lapointe, AJ McKeown, Thomas Nicholas, Russell Rhine, and Alex Schibuola.

OPENING STATEMENT OF HON. PATRICK J. TIBERI, CHAIRMAN, A U.S. REPRESENTATIVE FROM OHIO

Representative Tiberi. Good morning, and welcome to the Joint Economic Committee's hearing on job vacancies in the labor market. I want to especially welcome, from the Senate side, our ranking member, Senator Heinrich, as well as other members of the committee who expressed interest in exploring this important topic.

On the surface, low unemployment and a large number of vacancies suggest that the labor market is tightening. However, wage growth has been slow and many potential workers remain on the sidelines. Something is not yet right with the U.S. labor market.

I have heard from many employers in Ohio and around the country that they are still struggling to fill good-paying job vacancies. These employers tell me about people not being able to pass a drug test, people not having the skill set to qualify for job openings.

I believe there are causes on the demand side as well as the supply side of the labor market, and among both are economic policies by the last administration that weakened the recovery of business investment, labor productivity, and work incentives after the last recession.

Business investment and productivity must rise faster for wages to rise faster, and more people must join the workforce to raise economic growth.

The U.S. population is still growing. Since just prior to the last recession, the population has increased by 22 million people of working age, yet the labor force has increased by only 6 million people. The baby boom generation is moving into retirement, but

people in their prime working years also are participating less in the labor force than before the recession.

In addition to the work Congress and the administration are doing to reform taxes, improve regulation, and alleviate unnecessary government mandates, we must also focus our attention on improving the institutions that prepare our workforce for new challenges. That is why I have invited expert witnesses to this hearing who can provide perspectives from the economist's, the educator's, and the employer's point of view.

We must explore the value to the economy and individuals of sending ever more people to college, how well high schools position graduates for the workplace, how employer requirements inform the educational system, and what employers are contributing to the skill development of current and prospective employees.

In the United States, we must find better ways to equip young people and workers of all ages with marketable skills and the ability to adapt to the changing market demands as they progress through their careers.

I look forward to learning from the insights of our expert panelists today on how to improve worker proficiency, flexibility, and motivation. Faster economic growth and rising living standards for American families result from getting this policy right.

With that, I now yield to our Ranking Member Heinrich for his opening statement.

[The prepared statement of Chairman Tiberi appears in the Submissions for the Record on page 36.]

OPENING STATEMENT OF HON. MARTIN HEINRICH, RANKING MEMBER, A U.S. SENATOR FROM NEW MEXICO

Senator Heinrich. Thank you, Chairman Tiberi. And I want to thank our panel for joining us here today.

The employment picture is certainly brighter than it was 8 years ago, but not as bright as this country wants or needs. Too many Americans still can't find a job or are in jobs that pay wages too low to achieve financial security.

Employers complain that they can't find candidates with the right skills to grow their business, and in some parts of the country, for example, many rural areas, have largely been left out and need basic investment. Today, we are focusing on one way to create opportunities for more Americans, namely by investing in education and training options.

Some industries in some regions of the country face a mismatch between the skills employers need and the skills that workers have. Addressing this is important, but that alone won't adequately improve the economy or strengthen financial security for families and for communities. To do that, Congress must work with State and local leaders to take an all-of-the-above approach that supports workers and businesses.

In the 21st century economy, college is increasingly important for financial security. Congress has a significant role to play in making sure that students are not priced out of the future that they want and are ready to work for. Access to an affordable college degree must be available to every student who desires it.

We also know that a college degree is not and should not be the only path to a bright future. Career and technical education, apprenticeships, and other training programs lead to good-paying jobs. Here, community colleges have a critical role to play because they understand the needs of local employers, are committed to creating opportunities for their students, and can design programs and courses that are responsive to employers' current and future needs.

TechHire Albuquerque launched earlier this year in New Mexico using a Federal grant program. Central New Mexico Community College partnered with employers and State agencies to create an IT pipeline by providing training, work experience, and job placement. Graduates learn new computer skills, coding skills, earn industry-recognized credentials, and are able to put those skills to use with area employers. Employers are able to fill open positions with candidates that they know have proven skills, and that is the type of innovation and creative problem-solving Congress should be promoting.

It is also critical that we target training at high-growth sectors of our economy. That is what Central New Mexico Community College has done with its Stemulus Center, offering coding boot camps and new classes in Java, Android, and Salesforce.

This week, Senator Gardner of Colorado and I introduced the CHANCE in Tech Act, which encourages educators and businesses to start apprenticeship programs for the tech sector. This will connect more Americans to a growing sector where jobs are opening up each and every day.

In an all-of-the-above approach, we must recognize that investing in the workforce starts well before college or even high school, for that matter. It starts by investing in proven programs that set children up for success later in life. This is why access to universal pre-K is so important and why I am a strong advocate of the two-generation approach, which provides quality early education for children, while at the same time providing workforce training for those children's parents.

We have seen this work in New Mexico. The United Way Early Learning Center in Santa Fe offers year-round full-day services for children alongside technology, employment, and social service assistance for their parents.

For workers to remain competitive in the future economy, learning and skills development must continue over the course of a lifetime. Companies must get back in the business of investing in their workers, not just because it is the right thing to do, but because it is the prosperous thing to do for the business and for workers alike.

There is much work for us to do here. For the Nation to be competitive in the future economy we are going to have to find some new solutions. And I look forward to hearing from our witnesses with their ideas.

Thank you, Chairman.

[The prepared statement of Senator Heinrich appears in the Submissions for the Record on page 36.]

Representative Tiberi. Thank you, Senator.

I would like to now introduce our expert panel of witnesses. First, Ms. Diana Furchtgott-Roth is a senior fellow at the Manhattan Institute and the director of the Economics21 Program, recently served on the transition team for President Donald Trump. She served as chief economist at the Department of Labor from 2003 to 2005. Before that, she served in multiple roles for the George W. Bush, George H. Bush, and Ronald Reagan administrations. She holds a BA in economics from Swarthmore College, and a master's of philosophy in economics from Oxford University.

Welcome. Thank you for being here.

Dr. David Harrison is the fifth president of Columbus State Community College. In his role, he initiated innovative projects, such as the Preferred Pathway Program, which guarantees Columbus State graduates entry into Ohio's superb universities, including our alma mater, the Ohio State University. He also led the formation of the Central Ohio Compact, a regional strategy among K through 12 and higher education leaders, to help more students succeed in college and in the workplace. Under Dr. Harrison's leadership, Columbus State has received multiple distinctions for its innovative efforts.

Dr. Harrison, thank you for being here. And, as you know, I have a special place in my heart for Columbus State. I took real estate classes there and my two sisters went there.

Scot McLemore leads the development and execution of talent acquisition and deployment strategies at Honda North America. He has spent 27 years at Honda in both engineering and human resource positions, with a focus on technical development. In true American fashion, he started as a manufacturing engineer in the welding department of the Marysville Auto Plant, which is just outside my district. He currently serves as co-chair of the Ohio Manufacturing Careers Council Image Committee, vice chairman of the Columbus City Schools STEM Industry Council, and is a member of several career and technical center advisory committees.

Thank you for testifying today, Mr. McLemore.

And last but not least, Dr. Betsey Stevenson. She is an associate professor with the University of Michigan, Gerald R. Ford School of Public Policy, and also with its Department of Economics. We Buckeyes promise not to hold that against you. Before that, she was a member of President Obama's Council of Economic Advisers. She also served as a chief economist at the Department of Labor from 2010 to 2011. Dr. Stevenson specializes in topics such as the impact of public policy on the labor market, women's experiences in the labor market, and the economic forces shaping the modern family.

Dr. Stevenson, thank you for being here today. I know you just got here, so thank you for coming from the airport directly.

We will begin with our panelist from my far left. You are recognized for 5 minutes.

STATEMENT OF DIANA FURCHTGOTT-ROTH, SENIOR FELLOW AND DIRECTOR OF THE ECONOMICS21 PROGRAM, MANHATTAN INSTITUTE

Ms. Furchtgott-Roth. Thank you very much, Mr. Chairman. Thank you very much, Ranking Member Heinrich. It is such a

great pleasure to be here. Thank you very much, members, for coming to hear the testimony.

As you heard, there is a big problem with job vacancies, with a mismatch between employers who want to find people to work, and yet we also have people sitting on the sidelines. I would like to just briefly in my oral testimony review five points: community colleges; streamlining benefits; removing constraints to economic growth, such as what the Federal Reserve is doing; tax policy; and regulatory policy.

I know that Dr. Harrison is going to talk about community colleges, but I at least want to mention their very important role, how they can increase the earnings power and upward mobility of their students.

I performed research using individual students in the State of Florida in 2009, showing that C students, students with a C average, performed much better when they went to community colleges and took a high-return degree. They were earning about $45,000 a year when they graduated, much more than C students who went to try to get a 4-year degree right away. However, community colleges are also a transfer point for people who want to get a 4-year degree. These results have been extended and confirmed by a study published by the Community College Research Center of Columbia University.

To maximize students' opportunities, the American Association of Community Colleges has implemented a Pathways Project in 30 colleges to guide students toward high-return professions where they can get good jobs afterwards, steering them into degrees such as computer science and healthcare services. We call these fields high-return because there are high-paying jobs waiting for them when they graduate. So this is a very, very important component.

Moving on to my next point about benefits, it is interesting to compare the United States and the United Kingdom, which since 2000, have seen an increasing divergence in their labor force participation rate. It used to be, in 2000, that the United States had a higher labor force participation rate than Britain. Now, Britain has a higher labor force participation rate and a higher employment rate than the United States.

What has been happening is that in the United States we have been raising our benefits, expanding eligibility for disability insurance, for food stamps, for other kinds of programs. The United Kingdom has been reducing its eligibility, and they have been steering people into work as a condition of continuing to get benefits. So in the United Kingdom, if you are offered a job, you have to take that job. In that way, more and more people are returning to the workforce, and the number of people on benefits has been declining.

In 2016, 3.7 million people in the United Kingdom were on out-of-work benefits, compared to 5 million in 2011. In contrast, in the United States, about 60 percent of nonworking men are on Federal disability benefits. So we might want to take a look at what the United Kingdom is doing.

What we are also interested in doing is reducing constraints on growth. If we look at tax policy and regulatory policy, they are providing constraints on growth here in the United States. Our cor-

porate tax rate is way above those in OECD countries. It is 39 percent, compared with 25 percent, on average, for OECD countries. Canada has a 15 percent rate.

If we could do one single thing to increase economic growth, it would be lowering the corporate tax rate and moving to a territorial system rather than a worldwide system, which would stop companies inverting and moving off to Canada and other countries, such as Ireland. So I would say that would be the most important thing that we could do.

We also need to have regulatory reform, put in place cost-benefit analysis for regulations, and make sure that these regulations have benefits that justify the costs. Right in the EPA's environmental impact analysis and it's regulatory impact analysis for it's carbon rule, it admitted that jobs were going to be lost because of these regulations, falling primarily on states such as Ohio. And we need to make sure that these benefits also are—there are good benefits and also that the costs are not geographically concentrated in certain high-energy States.

Thank you very much.

[The prepared statement of Ms. Furchtgott-Roth appears in the Submissions for the Record on page 38.]

Representative Tiberi. Thank you for your testimony.

Dr. Harrison, you are recognized for 5 minutes.

STATEMENT OF DAVID T. HARRISON, PRESIDENT, COLUMBUS STATE COMMUNITY COLLEGE

Dr. Harrison. Chairman Tiberi, Ranking Member Heinrich, Vice Chair Lee, members of the Joint Economic Committee, thank you for the opportunity to speak with you today on this important topic.

My name is David Harrison. I am president of Columbus State Community College, and we happen to be one of the 30 colleges nationally that are part of the American Association of Community Colleges Pathways cohort that my colleague just mentioned.

I am pleased to be with you today to discuss the leadership role that community colleges can play in addressing job vacancies for employers and in providing people with pathways to successful careers.

The gap between open jobs and qualified employees is widening, and the reasons are many. The Nation's workforce is becoming more diverse. We have overemphasized the bachelor's degree as the only path to success for young people, and our educational system has been slow to respond.

You may be surprised to learn about today's college student. Three-quarters of them commute to class while balancing jobs and family responsibilities. They are first-generation college students, adults in transition, and military veterans returning home. These are the students that are the solution to the vacancy problem, and we need to think differently about how to help them succeed.

By overemphasizing the bachelor's degree, we have not served many young people well, as more than half reach the age of 25 without a postsecondary credential or an employable skill set. A technical credential is a better option for many of these students.

Harvard University notes that jobs requiring an associate degree are growing at three times the rate as those requiring a bachelor's

degree. Only a third of new jobs will require a bachelor's degree, with the rest requiring an associate degree or technical certificate.

Filling these 6 million jobs is possible with the right combination of strategies, including elevating the associate degree to prepare more people for high-demand jobs and expanding regional public-private partnership between K–12, community colleges, and employers.

I am pleased to share with you today promising practices we have developed in central Ohio, built on a strong culture of public-private partnerships. American Electric Power funds a program at Columbus State called Credits Count that enables us to prepare students for technical careers starting in middle school and take college courses while they are still in high school, leading to a technical credential.

JPMorgan Chase selected Columbus State as one of nine international partners to implement their New Skills at Work initiative, creating grade 9 to 14 career pathways for students in central Ohio. And we have partnered with Honda of America to develop a talent pipeline of electromechanical engineering graduates to address an urgent need. You will hear more about this from our great partner, Scot McLemore, whose testimony follows mine.

But we won't fill these 6 million jobs by focusing on young people alone. Demographics are not on our side. Many regions of the country, including Ohio, are projecting decreases in public elementary and secondary school enrollment. We must have policies that help military veterans and others in transition, as well as initiatives to address employment barriers due to transportation, childcare, and other factors. Employers who adopt fully inclusive employment practices are emerging as clear winners.

Here again, public-private partnerships in central Ohio are producing results. The Ohio insurance industry partnered with several colleges, including Columbus State, to develop an educational pathway that mirrors the professional career path in the industry, with a specific focus on adult students. This effort has helped Nationwide Insurance hire more than 1,000 Armed Forces veterans, with the goal of hiring 1,000 more.

The Federal Government can support these regional efforts in three key ways. First, expand programs that are working. The National Science Foundation's Advanced Technological Education program is an important source of venture capital for community colleges to develop programs in partnership with employers. At Columbus State, our NSF grants are focused in advanced manufacturing, cybersecurity, data analytics, and logistics technology, all high-growth fields requiring specialized skills.

Second, support programs that help adults in transition. The bill proposed by Senators Portman and Kaine to expand Pell grant eligibility to cover high-quality, short-term job training for low-income students could go a long way to help adult students prepare for the high-performance workplace.

And finally, look to community colleges as the regional leader in convening effective partnerships with employers and other local groups to fill jobs, launch careers, and expand economic growth. Community colleges are purpose-built to address this workforce

issue. Most of us are already doing this work, and we stand ready to do more.

Thank you for allowing me to be part of this conversation, and I look forward to your questions.

[The prepared statement of Dr. Harrison appears in the Submissions for the Record on page 62.]

Representative Tiberi. Thank you.

Mr. McLemore, you are recognized for 5 minutes.

STATEMENT OF SCOT McLEMORE, TECHNICAL WORKFORCE DEVELOPMENT, MANAGER, HONDA NORTH AMERICA, INC.

Mr. McLemore. Thank you, Chairman Tiberi, Ranking Member Heinrich, and the members of the committee for hosting this hearing on the critical issue of workforce participation and workforce development.

My name is Scot McLemore, and I serve as the manager of talent acquisition at Honda North America. In my role at Honda, I work to develop strategies to help address workforce challenges. Honda has more than 70 facilities in the United States, including 12 manufacturing plants that produce a wide range of products, including cars, trucks, light business jets, power equipment, and power sports products. More than 73 percent of Honda's 30,000 U.S. associates work in manufacturing roles. In addition to our direct employment, Honda works with more than 600 U.S. suppliers, who employ tens of thousands of workers nationwide.

Manufacturing jobs are high-paying jobs with good benefits, which should be highly attractive in our current economic climate. However, today, our ability to recruit and hire a qualified sustainable workforce is limited by two key factors. One, a shortage of young people interested in entering manufacturing; and two, a lack of prospective employees who have the essential skills needed to be successful in a manufacturing job.

Modern manufacturing equipment and processes involve an integration of pneumatic, hydraulic, mechanical and computer-networked components. Too often, individuals do not possess the problem-solving ability, technical training, computer knowledge, or math skills needed to compete in the 21st century workforce.

In order to address these problems, Honda has developed a number of educational initiatives and workforce training programs, which aim to build enthusiasm for future careers in manufacturing and provide potential employees with the necessary skills to compete in the modern manufacturing economy. Many of our programs are designed as public-private partnerships, including partnerships with academic institutions, local governments, and community organizations. While I will talk briefly about some of our programs, more information about them can be found in my written testimony.

Honda believes that the first step in developing a technical workforce is to create excitement for manufacturing jobs through early engagement with students, parents, and educators. Beginning with middle school, Honda has partnered with several organizations to develop initiatives aimed at building interest in manufacturing and developing the critical thinking skills that are necessary to succeed in manufacturing. These initiatives include: a unique educational

video game for classroom use; mobile labs featuring robotics; and STEM-based summer programs. However, a bridge must be formed between creating interest in manufacturing and actually preparing individuals to have the analytical and technical skills to operate equipment found on today's manufacturing floor.

As such, we work with high schools and community colleges to develop curriculum, supplement classroom lessons with plant visits, provide mentorships and scholarships. Most importantly, we have established programs with community colleges that provide students with the opportunity to learn the technical skills necessary for a manufacturing career while simultaneously receiving their degree.

An example of this is our partnership we have with Columbus State Community College, which is designed so students can work at Honda 3 days a week and go to school 2 days a week. This program gives students the chance to build technical skills while earning their degrees, allowing students a way to graduate debt free. Upon graduation, students may be offered a full-time position with the company. We have similar internship efforts in other States and communities where we have manufacturing operations in the United States.

Because the technology in the automotive industry is constantly changing, we make a commitment to ensure that education does not stop once associates are hired. Honda remains committed to ensuring our existing workforce has the skills necessary to be part of our exciting future. To that end, we have established technical training centers near some of our manufacturing plants to help our associates stay current with technology and grow professionally.

Going forward, we strongly believe that Honda's future and the future of manufacturing in the United States rests in the hands of programs like the ones I have outlined. However, there must be a significant increase and expansion of these collaborative efforts to develop a 21st century workforce. Additionally, continued support and improved access for STEM education is critical to ensuring that our future workforce has the skills to compete in modern manufacturing.

One step Congress can take immediately is to reauthorize the Carl D. Perkins Career and Technical Education Act, which recently passed the House of Representatives. The current version of the bill will help encourage more collaboration between stakeholders to ensure students have a pathway to a relevant and meaningful technical career. Honda stands ready to work with Congress to help solve the critical workforce issues that stifle the full economic potential of our country.

I am happy to answer any questions you may have. Thank you.

[The prepared statement of Mr. McLemore appears in the Submissions for the Record on page 71.]

Representative Tiberi. Thank you.

Dr. Stevenson, you are recognized for 5 minutes.

STATEMENT OF BETSEY STEVENSON, ASSOCIATE PROFESSOR OF PUBLIC POLICY AT THE GERALD R. FORD SCHOOL OF PUBLIC POLICY, UNIVERSITY OF MICHIGAN

Dr. Stevenson. Thank you, Chairman Tiberi and Ranking Member Heinrich. It is a pleasure to be here, and I want to thank you for the invitation to testify today about the state of the job market.

I want to start by placing the record number of job openings in the context of a strengthening labor market and an increase in dynamism. Businesses have continued to hire in large numbers, just again this June surpassing expectations. And over the past 6 years, we have seen the longest most persistent streak of job growth on record.

All this growth is leading to more job openings, and perhaps more importantly, it is also leading more workers to quit their jobs. You might think that doesn't sound like a good thing, but it is actually a great thing when workers feel confident enough to leave their jobs in order to seek out better opportunities. In fact, job changes are essential for workers to climb the ladder to better and higher paying opportunities. A return to a healthy level of churn is incredibly important and, frankly, we are not quite there yet.

One of the most profound challenges our labor market faces is lackluster wage growth, so I want to spend most of my time talking about that. Wages provide a clear market-based signal of demand for skills, and one of the clearest signals is the high wages of college-educated workers compared to those with less education. That is not to downplay other forms of training, but I think it is essential to start by understanding that the earnings gap between college graduates and those without a college degree has grown steadily for decades and in recent years has been at an all-time high. The benefits of a 4-year degree are also seen in substantially lower unemployment rates and higher labor force participation rates, even compared to people with a 2-year degree.

In addition, while there is concern about student loans, very clear research shows that most of the increase in student loan defaults is associated with borrowers at for-profit schools and other 2-year institutions associated with weak employment outcomes. These findings underscore the importance of funding successful community college programs that are clearly linked to employment outcomes.

One of the largest challenges the labor force faces in developing the skills of workers is ensuring that students from across the income spectrum have access to successfully and affordably complete a 4-year degree, because that is where the strongest demand is still being seen.

In competitive markets, a skill shortage should lead businesses to pay higher wages. And yet researchers have consistently failed to find evidence of employers bidding up wages of workers in specific occupations or geographic areas, even when there is a big gap between the number of openings and the number of hires, and that represents a real puzzle. I think the biggest place we see this is in healthcare, where there are a lot of openings, not a lot of hires, but the wages aren't picking up.

Many economists have pointed to slowing productivity growth as one of the sources of the slow wage growth, but it is important to

recognize that, even if we were to solve that problem, in recent decades, there has been a disconnect between productivity growth and wage growth that we need to address.

Some of the things that we are seeing is a decline in unionization, reduced worker bargaining power, and reduced worker mobility, and an increase in businesses engaging in clear anticompetitive labor market policies, including forbidding the sharing of pay information and requiring noncompete clauses, policies that are designed to restrict the ability of workers to make those changes that allow them to bid up their wages as they become more productive. Congress should seek to make the labor market as fair as possible by penalizing businesses that engage in such anticompetitive practices.

Additionally, policies like updated overtime regulations, robust minimum wage, enforcing workplace protections are all key areas that are important to raise wages.

Let me be clear, the current pace of job growth is unsustainable unless more workers elect to join the labor force, and without higher wages, that is very unlikely to happen.

So let me conclude by saying that there is something else policymakers can do beyond training, which is provide stronger infrastructure to support jobs. Today's workers, particularly lower wage workers, face challenges in getting to work without adequate public transportation, face challenges finding care for their children without adequate affordable childcare, and too often lose their jobs or are forced to quit when they need time off to care for a sick family member or their own illness.

Better infrastructure—in the form of affordable childcare, paid family leave, and better public transportation—since it's better infrastructure to support work, such as affordable childcare, etcetera to support work would clearly help attract more men and women to the labor force. Research has shown clearly that such policies would boost women's labor force participation.

Additionally, recent research has shown that roughly half of the drop in male labor force participation is due to men cycling in and out of the labor force. So making it easier for men and women to consistently hold onto a job will boost labor supply.

Let me end by taking a moment to note some cultural changes that are going on with our labor market, because I know this committee is particularly interested in that. Many of our declining sectors are in traditionally male occupations, while traditionally female or more gender-mixed occupations are growing. These changes are going to require that we not only provide training for workers to successfully enter new occupations, but that we rethink how we provide that training and how we conceive those jobs so that there is greater diversity for men and women to enter the jobs that are going to offer them the highest pay, regardless of their cultural connotations.

Thank you.

[The prepared statement of Dr. Stevenson appears in the Submissions for the Record on page 74.]

Representative Tiberi. Thank you. Thank you all for your very well-thought-out testimony.

Dr. Harrison and Mr. McLemore, last month, this committee held a hearing on the opioid crisis. Ohio, and New Mexico are two States that have been hit hard by that crisis. One of the things that I hear from employers in central Ohio regarding that is that they have job openings, but folks can't pass a drug test.

So anything you can share with us on your experiences with respect to that, and are there approaches that we can take to address such a problem?

Mr. McLemore. Thank you, Mr. Chairman. That is a very important question and concern.

I think for employers across the U.S., including manufacturing obviously. Based on my experience, Honda has seen some impact from the opioid abuse situation, but compared to other employers within the State and across the U.S., it hasn't had a very big impact currently.

I guess in thinking about that situation, though, my concern is also with those that are not yet employed, meaning the youth of America, which we don't know the full impact of that. So when thinking about that question, one of the things that I want to be aware of and take back to Honda, and work with our partners on, is understanding that situation and maybe incorporating those concepts with soft skill training as we go out to the high schools and middle schools, making sure that young people are aware of the impact of drug abuse and how it could negatively impact their career. But currently, we are not seeing as much of an impact as some other employers.

Representative Tiberi. Dr. Harrison.

Dr. Harrison. At the college, we know that our student body reflects the overall population, and we are in the early stages of trying to build this in as a career readiness component of our work so that students really are understanding what is going to be expected in the workforce.

It is interesting the conversations that I have had with employers, because they are struggling with it and are addressing it in different ways. So recently, I was in a conversation with two different CEOs. One was talking about the fact that they were working so hard to find new people they were having to relax their drug policies; and the other CEO was going in exactly the opposite direction, in terms of trying to increase the scrutiny and tests even more.

As you know, Mr. Chairman, in our State, our Governor has really made this a priority in the State budget, and it is something that we are really trying to wrap our arms around, because it is a statewide issue that is certainly hurting our State's economy, but also hurting families. We also know, with our work at the college, is that it really is a multiplying effect, in that if one family member is affected, it really does affect the entire family. And that infrastructure is something that we really do pay attention to.

Representative Tiberi. Thank you.

Mr. McLemore, the comment in your testimony that the factory room floor or the version of the factory room floor is outdated. And I think of when my dad worked in a factory, and that image in my mind versus when I received my first tour of Honda of America, are quite different.

How do we, or how do you, as someone in that industry, begin to try to tell kids who from a very young age, you got to get a 4-year degree, you got to get a 4-year degree, you got to get a 4-year degree? I am thinking of a constituent I spoke to yesterday, a mom whose daughter graduated from an Ohio college, a private college in Ohio, 4 years, well into the six figures, and she got a job as a public school teacher. A good job, she wants to do it, but the cost versus the employment, very different. Yet you have jobs that don't require a 4-year degree. There are other factory jobs that are much different.

How do you begin, or how do we begin, to help educate America's youth that there are good jobs that you don't need to get a 4-year degree?

Mr. McLemore. Yes, Mr. Chairman, that is a great question. I think it is a big challenge for employers and manufacturers, and, the answer to that question I think really is in the model that we have created with Columbus State.

So what you may find, I believe, in my written testimony that I wasn't able to describe, is our ability to create a line of sight for parents and students in middle school, starting with our manufacturing game, that gives them a glimpse of and some experience of what it is like to be in a modern manufacturing environment. So this is a start, which we think is very innovative.

But I think in addition to that, in our partnership with Columbus State, we go together, as an example, to a suburban high school near Columbus and in the Columbus School District and talk to parents and students directly about manufacturing careers, about the pathway, but also, we talk about the opportunity to continue that education through tuition reimbursement and partnerships that Columbus State may have with the Ohio State University, Miami, and other 4-year institutions in the State of Ohio.

Once students, and specifically parents and many times the mothers of those children, understand those opportunities, it is like a light bulb going off, because they have no understanding that these careers are available just down the street. If I could add, what is quite interesting, the work study students that we have at Columbus State that we have made full-time offers to, seven of the eight of those students did not know Honda had those manufacturing careers before they started at Columbus State in that program.

So our challenge is selling manufacturing. So we have partnered with the Ohio Manufacturers' Association, Jobs Ohio, and the Office of Workforce Transformation, to create a marketing strategy for the State of Ohio for all manufacturers. We have developed a toolkit, allowing them to go into schools and sell manufacturing. It is about changing the conversation.

Representative Tiberi. That is pretty exciting.

I am going to yield to our ranking member.

Senator Heinrich. Thank you, Chairman.

Dr. Stevenson, we have heard a lot about the critical role that skills play in workforce development, but it is certainly not the only challenge facing workers today. You touched on it a little bit in your testimony, but what are some of the other major challenges that we need to be thinking about to make sure that those workers

can actually have access to that skills training, that education, and get on the path to higher productivity jobs?

Dr. Stevenson. Thank you for that question. And I do think that you mentioned in your opening statement the need for an all-of-the-above strategy. We see that there are big gaps between children's start in life, and some of that starts with early access to preschool. It is very hard for kids to catch up when they have these very big gaps from the beginning. And it turns out that supporting early childhood education doesn't just support the children, but it allows the parents to stay attached to the labor force.

What we see is that the more people stay attached to the labor force and have continuous employment, the better they are able to build a career path and get those increases in wages. Gaps out of the labor force are bad for people's wage growth. And there are lots of things that lead to gaps. Not having adequate paid family leave leads to gaps. And we have seen evidence of that across other countries. We have seen it in the United States. When we have had States like California pass paid family leave programs, you see more continuous employment, particularly of young moms.

And as I mentioned in my testimony, I think some of the very compelling research coming out about young men is that they are cycling in and out of the labor force. They go, they get a job, but they don't last very long. Then they take some time out. Then they run out of money and they go back and get a job. But that doesn't lead to a pathway in which they are building a set of skills that are going to generate jobs. And some of that is due, you know, to the problems with drug use. Some of it is due to criminal justice problems. But there are lots of reasons in which workers don't feel that they have access to an upward mobility.

Senator Heinrich. You end up with a series of jobs, not a career path.

Dr. Stevenson. Exactly. And I really want to emphasize how important workers seeing a career path and having a progress narrative is, a progress path where they see that if they continue to diligently work, they are going to get a raise. There are so many workers today who their real wages are no different than they might have been 20 years ago. And that does not create the incentives for workers to adopt the skills that we need in order for them to build greater productivity.

Senator Heinrich. Dr. Harrison, I want to jump to you real quick. What do we need to do—and I assume you have some partnerships, or I hope you do, with high schools as well—to make sure that they see that early on, to know what some of those paths are and what some of those opportunities are?

And then I also want to touch on the issue of, in talking to people who are struggling in the labor force, it seems to me that the worst of all possible worlds—and I have run across this in many cases—are the students who end up with a substantial debt burden from their college experience, but not the degree or the skill sets to actually be able to do something about that debt and their earning power to put that behind them.

What should we be doing to make sure that, you know, we avoid that scenario with your students or other students across the country?

Dr. Harrison. Thank you, Ranking Member Heinrich.

First, with regard to your question on high schools, we are in 140 high schools in 60 districts in our region and have actually almost 5,000 high school students taking college coursework at any one time. One of the catalytic programs we have had has actually been funded by the U.S. Department of Education, their Investing in Innovation program (i3). We are the only community college in the country that was selected that is allowing us to work with seven districts with a high percentage of low-income students to really model and build in these kind of career paths, like we are doing—like we are doing with Honda.

The disconnect with regard to the bachelor's degree holder that has taken on a lot of debt and isn't making enough money to service that debt is something we see all the time. We have got more students at Columbus State with bachelor's degrees and even advanced degrees than we have ever had, because they haven't been able to get a high-earning job based on the bachelor's degree that they have.

You all know the data, I am sure, as well or better than I do, but the average bachelor's degree holder graduates with $30,000 or more in debt. It takes them over 20 years to pay it back. This is a generational kind of thing. So really helping students and families understand that they do have options is something that we are working hard on.

We have got a great complement of universities in central Ohio, certainly led by Ohio State University, and are really promoting the 2 + 2 pathway to bachelor's degree in a very public way, where students earn their freshman and sophomore year of the associate degree at Columbus State and then are guaranteed admission to Ohio State and other university partners, saving tens of thousands of dollars on the bachelor's degree.

The other thing that Scot touched on—and I do want to call out really the leadership that Honda has provided, and Scot specifically, in terms of elevating these career pathways, and not just for the benefit of Honda but for manufacturing generally. But if you do the math for the students in the co-op program that he is talking about, I will call out one student specifically, Anton, who was in I think our first class, a son of Filipino immigrants, started in our co-op program making $18 an hour while still in high school, graduated with his associate degree at the age of 19, walked in—I shouldn't say walked in, earned a $60,000-a-year job at Honda, and now I think is in a bachelor's degree program with full tuition reimbursement paid by Honda. So he is going to graduate with his bachelor's degree in his early 20s, not only debt-free, but he has been making money since he was 18 from Honda. That is replicable, and that is something that we think is scaleable.

Senator Heinrich. Thank you very much.

Representative Tiberi. Good question.

Representative Schweikert, you are recognized for 5 minutes.

Representative Schweikert. Thank you, Mr. Chairman.

And this is one of those, I have a fixation on this particular subject area, so please forgive me if I am slightly disharmonious, because we all have this habit of speaking our own book, our own life

experiences, our own area of specialty, and I fear missing what many of us who are fixated on the actual demographics are seeing.

So I would like to just run through a number of things. Can we actually do one big step backwards away from antidotals and actually first some discussion on what we see in the labor force participation numbers for typically some of the demographics in the number of our population that if it were post-1996 welfare reform, for that 10 years would have been actually in participation in the labor force and today are not. And we all screw up your name. Is it Furchtgott-Roth?

Ms. Furchtgott-Roth. Furchtgott-Roth. You should just say Diana.

Representative Schweikert. Furchtgott-Roth. You were the only one who actually mentioned some of the underlying data. First off, let's actually just do backwards something you did mention.

Sixty percent of males who are not in the labor force today are on——

Ms. Furchtgott-Roth. Are on some kind of disability benefits.

Representative Schweikert [continuing]. Disability or a social entitlement program right now.

Ms. Furchtgott-Roth. Yes. The point is that these have been expanded. They were expanded during the Great Recession, and then this expansion has stayed rather than being ratcheted back. So our labor force participation rate right now is 62.8 percent, and it has been around 66, 67 percent in the past. And some people say this is because older workers are retiring, the baby boomer's retiring. But really, the 55 and over labor force participation rate is rising. It is the 25 to 54 that we are concerned about.

Representative Schweikert. You actually beat me to something we have seen in some of the fascinating data is actually older actually choosing to stay in the labor force much longer.

Ms. Furchtgott-Roth. Yes.

Representative Schweikert. Some of that may be savings and retirement and retirement lifestyle aspects.

If I wanted to find literature to actually look at the post-1996 welfare reform labor force participation velocity of particularly my population moving from let's call it lower tiers into true middle class, where would you send me?

Ms. Furchtgott-Roth. Well, there has been a lot of very interesting work on mobility. Scott Winship, who works with the Joint Economic Committee for Senator Lee, has done some of the best work on that. And so I would say you should go to Scott Winship and just find his latest articles. He is right on your staff. He is one of the leading experts in the United States on mobility and inequality and these different kinds of issues. He has written extensively on it.

Representative Schweikert. Thank you. And my fixation to particularly staff and everything else is that looking for a more holistic approach, because my fear is this constant saying I am going to do a job training program here, I am going to do this here or do this here doesn't help me when I am looking at just shy of 100 million of my brothers and sisters in the Nation, what percentage of that should probably still be participating.

Dr. Harrison, in a number of meetings I have had—now, this is actually more for the high-tech community. I had a fascinating discussion a couple months ago with I think it was Oracle, who are saying they are tired of hiring 4-year computer science degrees and then spending the next couple of years getting them an Oracle certificate, whether that be Oracle or SaaS.

Are we in a world where it is time to have a revolution in the accreditation world, where I can do my AA, I can do my part, and the accreditation world says, I am going to take a little of this, a little of this, a little of that, and actually start doing things that are actually part of what labor markets demand?

Dr. Harrison. Well, I think that is possible. I think it would have to be employer-driven. I think that is the, at least at the community college level, kind of the barometer that we would use. And the ability for employers to determine——

Representative Schweikert. But in your world as a community college, are you allowed to produce programs and say, this doesn't meet our accreditation standards, but Honda really wants to hire someone who has done these classes? I mean, it is almost more community college of coder camps or learning to run CNC equipment or other things.

Dr. Harrison. We are allowed and, in fact, it is becoming more commonplace. Our State just approved a short-term certificate pathway that is going to allow for more of these kinds of things. The computer scientists that Oracle was talking about, they are coming to Columbus State to learn Amazon web services, cloud technology, or Apple Swift programming.

Representative Schweikert. Okay. Because that is part of my holistic approach is I think it is a revolution, everything from what we consider to be education anymore down to the job skills to—we have to actually also start to explore if you want to see why healthcare doesn't have wage inflation, how do we compensate healthcare? Well, at CMS, you know, we functionally have government control in pricing.

I mean, there is a series of these things that we throw out in discussion, but if you drill down into them, we are at fault in the way we build sort of this regulatory mechanics. So I know I am way over time, but it is a powerful discussion for our society.

Representative Tiberi. Senator Peters, you are recognized.

Senator Peters. Thank you, Mr. Chairman.

And I think that those are interesting points, and I am going to explore some of those a little bit further if I have time as far as looking at some new paradigms as to how we provide education, which I think is interesting.

But I am also interested in data. And as we were talking about the openings, the job openings that are available, I would like to have a better sense of where those job openings are. There has been a discussion about manufacturing. Certainly, I hear that as I travel around Michigan. Manufacturers are having similar issues as you are having in Ohio; it is no different in Michigan.

But when I looked at some Bureau of Labor data, it seems in terms of openings, it is in areas like food services. It is in hospitalities, which are far above the average of openings. Many, many more openings in those jobs tend to be lower wage jobs.

Dr. Stevenson, I think you mentioned some of that in your testimony. Where is the data? Where are most of the job openings out there? What sorts of skills? What sort of job classifications? What I saw are healthcare, social assistance, day-care, food services. Is that accurate? Where's the data?

Dr. Stevenson. So I think it is really important that we distinguish between job openings and job growth, because we do have a lot of underlying churn. So there will be a lot of hiring, millions of jobs hired in manufacturing, even if as a sector manufacturing is declining.

So we do have to think about this, because if manufacturing as a sector is declining, it means it is like a game of musical chairs where they keep pulling out some of the chairs, but we are still going to have a whole bunch of new workers going into that field. And I think that that highlights the need for us to provide training that is adaptable and movable and is general enough that students or graduates, workers are able to move to other sectors if they find themselves short of one of those seats when they are working in a declining sector.

The sectors that are growing are in the service sector. In general, the goods-producing sector is in decline, and manufacturing is part of that. And this is a longer run trend. And where we are seeing growth is education and health services and business and professional services.

And that is some of the reason why you see these strong returns to college education, but it is also just a shift in global society where we think about where is the U.S. really strong? And we are really strong in services. We export a lot of business and professional services. And I think we will continue to see job growth in those areas, even though we are going to continue to see hiring in sectors that are not growing as quickly.

Senator Peters. The other area that I find interesting, and we heard some comments earlier about employers having to do some training—and certainly, Mr. McLemore, you have talked about that as well—is that when I came out of college, I did go through a very extensive training program that the company provided for me. And yet we have seen what I think is a troubling trend that more and more employer-paid training is going down. It used to be, I think in 1996, about one in five companies—one in five employees that came in had some sort of employer training. Now, that number is extremely low and employers are just expecting folks to be trained when they walk in the door, instead of investing in their employees. That is not what it was like when I came out of college.

Is that an accurate reflection? Are those numbers, indeed, accurate? You are shaking your head, Dr. Stevenson.

Dr. Stevenson. Yes, that is accurate and, frankly, it is quite puzzling, because we see workers—we have seen a decline in mobility. So workers are spending more time with their employers, and yet their employers are investing less in them. And I don't have a good explanation for why that is, but it is certainly what we are seeing.

Senator Peters. So you are seeing less employer investment in employees, and you are seeing wages that are not going up, even

though there are shortages. That doesn't seem to comport with classical economics, does it?

Dr. Stevenson. It does not.

Senator Peters. Anybody else have a comment on why is there disconnect? There are shortages of skills. Employers are not investing in skills, and they are not paying more to attract folks to come into their businesses. Any other ideas?

Dr. Harrison.

Dr. Harrison. Well, the only thing I would add to that is we work with a lot of small businesses who don't necessarily have the means to train their employees in the way that you are talking about, or employees are true multitaskers. So what we are working on with our chamber of commerce and others is to figure out ways to pool that so that that becomes a more collective approach, so that the employer is benefiting, but we are also able to really build the skill set of our region.

Senator Peters. Let me add in the remaining time, since it is getting low here. One area that does train folks are labor unions, particularly in the building trades. They have very extensive apprenticeship programs. I have toured many of them in Michigan. Complete training. Students can come in, get basically free training, and get a great job afterwards. And yet we have seen a declining number of union jobs.

Is that related to—Dr. Stevenson, you are shaking your head again as well. With declining labor and apprenticeship programs, to me that is a significant problem.

Dr. Stevenson. That is a significant problem. With declining unionization, declining union investment in training, somebody has to pick up the slack. And that is either going to be businesses, and they haven't been doing that, or it is going to be government.

Senator Peters. Great. Thank you.

Representative Tiberi. Thank you.

Mr. Rooney, you are recognized for 5 minutes.

Representative Rooney. I don't have a clock, so let me know if I——I would like to ask Ms. Furchtgott-Roth a question, since you referenced the labor force participation rate. And I have been mulling over this study from Nick Eberstadt over at AEI, which is pretty chilling, and I would like to introduce it to the record, if I might.

Representative Tiberi. Without objection.

[The article titled "Our Miserable 21st Century" appears in the Submissions for the Record on page 78.]

Representative Rooney. But he starts out by saying: By the criteria of adult work rates, employment conditions in America remain remarkably bleak. And he goes on to cite all kinds of horrendous things. But a couple of them that stood out in the nature of the argument or the comment that three 25- to 55-year-old males for each 25- to 55-year-old unemployed male are sitting out of the workforce and living off of benefits. That is 5 million people since 2000. And half of these sitting out of the workplace, some 7 million take daily pain meds. Half are on Medicaid. And there are also some statistics from Alan Krueger at the Council of Economic Advisers, after you were there, about that a majority of these people were surveyed that they, quote, "don't do civil society," unquote.

So I am not an expert in this and you are, and I would like to ask you, what do you see we can do to kind of draw these people out and into the workforce using some of the tools that you describe in your testimony?

Ms. Furchtgott-Roth. Well, it used to be that if you were an able-bodied adult, you couldn't get benefits. You had to work. You couldn't get health insurance; you had to work for that. And this has changed in the United States over the past 10 years, and the results are what we have seen, as Nick Eberstadt has described.

There have been other people who have written on this. Casey Mulligan at the University of Chicago in his book "The Redistribution Recession," and also his book on the effects of the Affordable Care Act on labor force participation.

It is clear that if you get benefits without having to work, then fewer people are going to work. It is not something that an economist needs to do a study to analyze. Anyone can understand it, although many economists have measured this phenomenon.

As well as the services, there are also a lot more job openings than hires in information, financial activities, finance and insurance, real estate rental. There are opportunities out there. I would say that employers don't necessarily do formal training, but they do a lot of on-the-job training. When someone comes, they show them the ropes. Many employers are saying that they cannot find people who come and who want to do these jobs.

There was an experiment of sorts in North Carolina when Governor McCrory in 2013 said, we can't find enough welders. He cut back uninsurance benefits dramatically, to 19 weeks from about 63 weeks. And all of a sudden a lot of jobs started getting created in North Carolina. Employment went up; unemployment went down.

Representative Rooney. Thank you.

Dr. Stevenson, maybe for you, but also it would be great for you too, is in the concept of the workforce participation and the testimony you put about there that business can do more. There has been a lot of reading. I just read this, but "Poor No More," about the argument that instead of workforce training and preamble activities to work, you just get someone in there and put them to work. And between OJT and apprenticeship and things like that, they will gradually get with the program, and then maybe you supplant it later with some training to advance their skills.

Can you comment on that?

Dr. Stevenson. Are you asking if I think it is a good idea to put people into jobs before they are prepared so that they can learn on the job?

Representative Rooney. That is what I am asking.

Dr. Stevenson. You know, I think people have different ways of learning. There is obviously an importance of having a certain basic skill. And, you know, I advise my students that, to the extent they can, they should concentrate on building their skills, because they will be more productive once the skills are built.

You know, I would like to emphasize that, you know, a century ago, countries mocked the United States for how much we were sending people to high school. They said that was a waste and we should put people into jobs and they should learn on the job. And what we did was set ourselves up for the most impressive growth

in the world last century, because we were willing to educate people. And I think we should be thinking about education today in the same way that we thought about it when we were expanding high school to the masses.

We need to make sure that people have the opportunities to develop skills so that they can productively contribute. Lots of people learn really good by doing, and so—learn really well by doing, and I think that, you know, it is a great idea to build out those opportunities. But, you know, I wouldn't say that we should just have students, or young people, dumping them into jobs without giving them adequate training.

Ms. Furchtgott-Roth. On the other hand, the skills that you get when you graduate from high school now are not necessarily the skills that people had 50 years ago, if you look at the tests that people passed 50 or 60 years ago compared with the tests they pass now. There are some parts of the country where the graduation rate is only 55 percent, and we need to do more to let those students have alternatives, such as charter schools or school choice, allow the tax money to follow the child so that parents have the ability to choose a better school for them and so they do get those skills, because with the math skills and the reading skills, you can start in a lot of employers with a lot of jobs and work your way up. But without those basic math and reading and writing skills, it is difficult.

Representative Rooney. Thank you. Good discussion.

Representative Tiberi. Senator Hassan, you are recognized for 5 minutes.

Senator Hassan. Thank you very much, Mr. Chair and Ranking Member Heinrich, for this hearing. And to the panel, thank you all for being here this morning.

I know you have all been talking about the relatively low national unemployment rate, and it is clear that there is no easy solution to addressing a record high number of unfilled jobs reported from the Bureau of Labor and Statistics as 5.7 million openings in May.

We all can agree we need more participation in the labor market and a more skilled workforce in order to be successful in changing our economy. As Governor of New Hampshire, now Senator, it is the number one thing I hear about from businesspeople and employers.

One way to do this is to identify the individuals who have fallen out of the labor workforce that Congressman Rooney was just pointing to and to assist them with additional supports so that they can gain the skills necessary to fill vital job openings, because, again, I hear from employers that the people who do show up often don't have the high-tech skills that we need.

In New Hampshire, programs like Families in Transition and Goodwill have had success looking at the whole person and providing wraparound services to help people navigate homelessness, addressing their transportation needs, and securing childcare, in addition to job training. These programs in New Hampshire have demonstrated that at-risk individuals, when given the right supports, are capable of finding stable, good-paying employment, and working their way into the middle class.

So do you agree that these types of programs assist in expanding our labor markets? And do any of you have suggestions on how to scale and implement these types of services nationwide?

And, Dr. Stevenson, I would like to start with you.

Dr. Stevenson. Yes. So I strongly believe that these types of family support programs are essential to increasing the labor force. And to put some data on it, research has shown that female labor force participation in the United States would be 6 percentage points higher if we had the kind of access to childcare and paid family leave that other countries have. So we know that our lack of this type of support is actually holding back female labor force participation. We also know that the lack of support leads to long-term negative consequences as well.

We are also learning more about people's cognitive limitations. So that sounds almost like a difficult thing to talk about, but if you spend your time trying to figure out how you are going to put food on the table, you have got less left to give your employer. And so by making sure that we remove some of the burdens that people have, struggling to figure out how are they going to get their kids cared for while they are at work, what are they going to do when their kid is throwing up at school, when we reduce some of those cognitive burdens, they have more to give their employer, and that leads to higher productivity and better outcomes.

And we know what needs to be done for that. We know that we need more government support for paid family leave and for childcare.

Senator Hassan. Thank you.

Any of the other panelists like to address that?

Ms. Furchtgott-Roth. We already have a substantial deficit, and these government programs would come at an additional cost. One has to figure out what is worthwhile. And there are plenty of——

Senator Hassan. I also saw Dr. Harrison wanted to comment, so I want to make sure we get to him as well.

But just to that point, in New Hampshire, because of our low unemployment rate, we actually had significant reserves in our welfare fund. We could use those reserves for some of these supports and wraparound services. And then we see things like people who get benefits from expanded Medicaid going into the workforce, because they weren't healthy enough with chronic illness and kind of a revolving door into the emergency room to work. Now they are. So there is some good evidence that it could actually address some of our deficit issues as well.

Ms. Furchtgott-Roth. Right, exactly. But if we look at Europe that has government-paid maternity care, frequently government-paid childcare, in many cases, their labor force participation rates are no higher than ours, plus their economic growth is much lower than ours in general, because these benefits kind of weigh down on their sectors.

Senator Hassan. Well, and I don't think anybody is suggesting exactly the same thing.

Dr. Harrison.

Dr. Harrison. I was just going to say, these issues really are all related, and we see the same thing happening at the college. As I

said in my testimony, most college students are working. Many of them have family responsibilities. So the same kinds of challenges that exist in the workplace exist in terms of helping them advance their education.

We need to remember that the education/employment pipeline really isn't sequential anymore. It is happening concurrently. And it is left to the student in many cases to balance their job schedule, their family responsibilities, and their academic workload. And that is something that we work with every day. We try to help them manage it.

Senator Hassan. Thank you.

Mr. McLemore, anything to add?

Mr. McLemore. No, Senator. I think it has been covered quite well by my fellow panelists.

Senator Hassan. Thank you very much.

And thank you, Mr. Chair.

Representative Tiberi. Thank you.

Mr. LaHood is recognized for 5 minutes.

Representative LaHood. Thank you, Mr. Chairman. And I want to thank the witnesses for being here today, for your valuable testimony, and for the subject matter.

The district I represent in central and west central Illinois is a fairly rural district, but a common complaint that I hear from employers, and I have some larger employers—Caterpillar is based there, State Farm Insurance, John Deere, ADM—that there are lots of jobs available, but no one can pass a drug test or a criminal background check, and I hear that constantly.

And I know some States have been creative in what they have done to help in this area, but I wanted to ask Dr. Harrison or maybe Mr. McLemore, in your experience, have you seen where States have been creative or how they have helped to address this problem and any thoughts you can shed on that?

Dr. Harrison. I don't have a silver bullet solution to that. I mean, I think it is something in Ohio we are certainly struggling with. And the one thing I would say is we are trying to do it collectively in our State, and address both the individual that is involved, but also look at, you know, how we can prevent that down the road.

As I mentioned earlier, we are trying to do it through education and awareness and those kinds of things. But it is an issue certainly Ohio is struggling with.

Representative LaHood. Mr. McLemore.

Mr. McLemore. Yes, I agree with Dr. Harrison. It is a collaborative approach. I don't have specifics around how we would address it, other than I did mention earlier, Honda does support and participate in soft skills training at the high school level. One of the things that I believe we could do is to include that in our soft skills training with youth and talk about the negative impact of that on their lives as well as their careers, specifically in manufacturing or in any career that they pursue. But we haven't implemented any specific models, other than involving soft skills training for youth.

Ms. Furchtgott-Roth. We have had success in the past with massive reeducation campaigns. There are kids who will take

drugs, but they won't throw trash on the ground. They have been brainwashed not to litter. They have been brainwashed not to smoke cigarettes. The rate of smoking has dramatically decreased, littering. And recycling, we brainwash them to know that you should throw your bottle in the right trash can.

We need to have a similar effort with these opioids and with these drugs. We are not putting enough effort into it. We need to be starting at grade school, massive campaigns like we have. And I am sure that if we have done it with these other—we have seen results with these other things, we can also see results with drugs.

Representative LaHood. And is it your thought that the statistics that show how many jobs are available, that that would change if this was implemented the right way?

Ms. Furchtgott-Roth. I also think that we need to be carefully looking at the replacement ratio, as how much people gain when they are not working and dial that back. They are not eligible for all kinds of programs that they didn't used to be eligible for 10 or 15 years ago. It didn't used to be that able-bodied adults were able to collect benefits. They had to work. Now they can collect benefits. So we are also seeing the results of these.

Representative LaHood. Thank you.

Another area that I wanted to cover is what I call kind of the brain drain from rural areas to urban areas. There seems to be a gravitation towards more of our cities and urban areas and young people that don't necessarily want to come back to rural areas or smaller size cities and go to larger cities.

Can you, Dr. Harrison or Mr. McLemore, comment on that?

Mr. McLemore. Yes. Congressman, it is a challenge for Honda. Most of our manufacturing facilities are located in rural areas. In terms of finding talent, we are working very hard with the initiatives that we have put in place with local community, technical career centers, and high schools, to encourage young people to pursue these manufacturing opportunities.

We have recently partnered with the Society of Manufacturing Engineers and are funding a manufacturing pathway at our Anna High School near our engine plant. In addition to that, we have mobile manufacturing labs, one of which I think Dr. Harrison is aware of, where we are offering training, both incumbent training as well as training in those regional and those rural areas.

So for Honda, it is an important challenge and it is important that we find solutions for that.

Dr. Harrison. We have seen both sides of that, where we do see exactly as you are describing, people moving from rural areas to urban areas, like Columbus. But I was in conversations just recently with employers and some of our economic development leaders looking at a heat map of where the jobs are and where the people are. And a lot of the jobs are clustered in the urban areas, and they can't get people to relocate from some of the rural areas of our State. So the jobs aren't always where the people are, and that is something that we continue to try to align.

Representative LaHood. Thank you.

Thank you, Mr. Chairman.

Representative Tiberi. Before I recognize Representative Maloney, the Senator and I were wondering if we could go one more

round, the folks that are here, of questions, because we think this has been a very, very good—is that okay with the four of you? Thank you.

Senator Maloney—Representative Maloney. I almost demoted you.

Representative Maloney. Thank you for holding this hearing.

And, Ms. Stevenson, I was just at a Janet Yellen hearing. I am a little late. So it is important.

Labor force participation for women peaked in the 1990s, and has since declined. And according to a Brookings Institute study, 28 percent of that decline can be attributed to the lack of family friendly work policies. And how would a Federal paid family leave policy affect vacancies in the labor force and the speed with which they would be filled?

Ms. Furchtgott-Roth. Well, I think, first of all, there are different ways to have family leave policies, but I think any mandatory family leave policy would result in a declining hiring of women of childbearing age, because women of childbearing age would come with a certain cost to them. So if an employer had to choose a qualified man and a qualified woman, the qualified woman would lose out. I would say that mandatory paid family leave policies are not a good idea to promote labor force participation.

Representative Maloney. And your comment, Ms. Stevenson?

Dr. Stevenson. So I would disagree with that, respectfully. I do think that paid family leave policies promote greater attachment of women to the labor force, and that greater attachment leads to greater wage growth, which encourages overall participation.

I have recently been part of a bipartisan commission with AEI and Brookings to put together a paid family leave proposal. And we did tackle this issue of wanting to ensure that there was as little discrimination as possible or employers attempting to opt out. And so we do recommend that paid family leave be available to both men and women.

And that is not just for the issue of discrimination, but because that is actually what people want. Surveys show very clearly that young men today want to be able to take time to take care of their kids. They want to be fully engaged parents. And that means they need to be able to take a day off when their kid is sick, or they want to be able to take time off when they have a newborn child into the home.

And so what we see is that when we have paid family leave policies, if we had a nationwide paid family leave policy, I believe that women would have greater labor force participation. They would find it easier to stay attached to the labor market.

I do also want to add that while we have seen labor force participation of women peak in the 1990s, we have seen their contributions continue to grow in other ways. And so that illustrates that it is not just about—paid family leave isn't just about trying to get women to participate more in the labor force, but making sure we are taking advantage of our most skilled workers.

Women are increasingly the most college-educated workers. They increasingly have the same level of job experience as their male colleagues. And these high-skilled, highly experienced workers find

themselves in a bind when they have young children and are unable to access paid leave policies.

And so overall, I think the economy would benefit from something that neutralized the issue of paid leave so that employers weren't wrestling with whether that was a benefit they wanted to offer, but something that everybody had equal access to.

Representative Maloney. Well, President Trump has shown support with his daughter for paid leave for the birth of a child. And research from the United Nations shows that America is among two countries in the whole world that does not have a policy for paid leave for the birth of a child. We are in the same company with Papua New Guinea.

So this seems to have more support. A bill passed the House of Representatives twice, did not pass the Senate.

What are your comments on paid leave for the birth of a child?

Dr. Stevenson. I think the good thing about coming last is we have lots and lots of evidence that it works around the rest of the world. And I have confidence that the United States is a strong economy that can succeed and do even better when we move to the types of policies that every other country besides Papua New Guinea have.

Representative Maloney. And, Ms. Furchtgott-Roth.

Ms. Furchtgott-Roth. Many employers have their own paid family leave policies, and this is something that should be worked out between the employer and employees on a case-by-case basis. There are some companies in the Washington area that provide 5 months of paid maternity leave for a birth of a child, and there are others that don't provide any.

But it basically raises the costs of employment. We have already been decrying the lack of job opportunities. Any mandated costs on employers increase the move to technology, the substitution of technology for workers, and would result in lower employment rather than higher employment.

Representative Maloney. Dr. Harrison, in your written testimony, you were talking about career education and hooking up businesses with schools and training young people. I have a very successful program near my district, right on the border, between IBM and a high school, where literally every child is trained for a job in IBM. They have partnered with them. They then help them achieve a college education, and then they move them directly into their jobs. And it is fantastic. Every child in that school gets a job when they graduate.

And do you see this moving forward with businesses, you know, partnering with public education to train for the specific jobs they need? You keep reading that certain industries can't find the workers they need. Why in the world aren't they partnering and working with our schools to train them with exactly the skill sets that they need?

Representative Tiberi. And before you answer, I just want to remind the gentlelady that her time has expired. But go ahead and answer.

Representative Maloney. Thank you so much, Mr. Chairman, but this is an important question. When you see something suc-

ceeding, you want to try to figure out how you can make it happen again.

Dr. Harrison. I will be brief. I believe that is the P–TECH program.

Representative Maloney. Yes, that is it. That is exactly in Brooklyn.

Dr. Harrison. And in central Ohio, we have a version of that replicated in many industries. You weren't here earlier, but our partnership with Honda of America is a great example of that. We have many other companies, American Electric Power, JPMorgan Chase, others, who are working to do the same kind of thing. It is not as specific yet as what IBM is doing, except with regard to what we are doing in manufacturing, but there is really kind of a groundswell of work in information technology, because a lot of the larger companies in central Ohio share that as an acute need. So it is something we are working collaboratively on with K–12, community college, and our university partners.

Representative Maloney. Thank you. My time has expired.

Representative Tiberi. Mr. Beyer, you are recognized for 5 minutes.

Representative Beyer. Thank you, Mr. Chairman, very much. And thank you all very much for being here.

And, Ms. Furchtgott-Roth, I would like to immediately push back as a business owner. I have 380 employees, $200 million a year, and we instituted paid maternity leave 6 weeks about 4 years ago. And we have had no tendency to try to replace these people with technology. In fact, it has been an extraordinary recruiting tool for us to bring people in.

We find that it is so hard to attract women to a business where women are very successful that this can be a positive thing rather than a negative thing. I don't see—in fact, there are lots of studies that show, especially within the Federal Government, the legislation that Representative Maloney has offered again and again, that it actually saves the Federal Government money to do maternity leave rather than cost. You don't have to train new people. You don't have to hire new people.

Ms. Furchtgott-Roth. Precisely. And as you know, employers are very smart. They can work this out on their own. The company that I mentioned that offers 5 months' paid maternity leave also has trouble attracting women, and this is a recruitment tool.

I am just saying that the Federal Government does not have to do a mandate. This is being increasingly worked out on an employer-by-employer basis, as there is increasing shortage of women and companies want to recruit them.

Representative Beyer. But it may well be part of the fundamental problem about why we have this so-called skills gap.

You know, when I talk to people in the business community, as I do all the time, you hear this we just can't find the qualified people again and again. But this issue has been around a long, long time, not just since the Great Recession. And there is lots of research out there. In fact, I have got a passel full of articles here. But people from like Boston Consulting Group, Andrew Weaver, Paul Otterman, they show that really there is little evidence of a meaningful and persistent skills gap, that there are many other

things part of it, including wage stagnation and including that one of the greatest obstacles may be employers' insistence on prior work experience in the same industry to bring them in.

So, Mr. McLemore, as a car dealer—and I would love a Honda franchise, by the way—you know, we are very familiar of how closely we have worked together with our manufacturing to provide training. What is your perspective on this skills gap and the search for skilled employees?

Mr. McLemore. Well, thank you for that question. I think, as you mentioned, there are many reasons why we have this challenge. And I think what I found in our partnership with Columbus State and the partnership with our other educational institutions is it is really around the understanding that these opportunities exist, and then what are the pathways in which they can get the skills and be trained to be prepared for these roles.

It is just amazing to me how few individuals understand what the opportunity looks like and what it feels like. And then on top of that, how do they enter that workforce and what are the skills that are even required?

I know the challenge for Dr. Harrison and other community colleges regarding programs that they can provide is to pull people into those programs. So what they have done is they have asked employers to come and sell those programs by marketing the careers which they would get as a result of that education. I think the key is those partnerships and that collaboration. Without that, people are not going to seek that training, I don't believe, wholesale on their own. Just not enough people are going to do that.

So I think that is a big challenge for us, creating what I call the line of sight for those individuals that are either displaced or are not currently seeking that pathway.

Representative Beyer. Thank you very much.

Dr. Stevenson, there has been a lot of discussion about the impact of social benefit programs on labor rate participation. We hear this all the time in rural Virginia, that, you know, with SSDI and everything, why do people need to go to work?

What is your perspective? Are social support programs our biggest labor participation problem?

Dr. Stevenson. I do not believe so. If you compare what we have to other countries, we do not have a very robust safety net. If you look at growth in SSDI, the primary drivers of growth are that there are more people who qualify for SSDI. Because of women's increased labor force attachment, there are more women who qualify. And then you have an aging workforce, which means that people are getting to that time in their life where they are more likely to develop the kinds of problems that would lead them to be on SSDI.

I do believe that it would be useful for us to do a better job of helping people who are able to get back to work get back to work. And there are certainly lots of demonstration projects out there to try to figure out how to do that.

If you look overall at our benefit structure, it is not benefits that are keeping people out of work. And we have seen—I should say, you know, we did see unemployment insurance ramp up when we had unemployment rates of 10 percent, but we have seen unem-

ployment insurance come back down as unemployment has recovered. And the decline in unemployment surpassed every forecaster's expectation, despite the fact that we had such robust levels of unemployment insurance.

Representative Beyer. Thank you.

Representative Tiberi. Thank you. Good questions.

We are going to go for a second round here. And one of the questions the gentleman from Virginia asked you, Mr. McLemore, kind of piqued a thought in my mind. Let me give you a hypothetical. This could apply to any State, but let's do it from an Ohio perspective. And, Dr. Harrison, please share your thoughts as well.

Let's assume you had a large international manufacturing CEO, to my left. He is the CEO of a large manufacturer. He wants to put a facility, a manufacturing facility, let's say in the Midwest. And so he comes to Ohio, and the concern he has is can I get enough people to work.

Senator Heinrich. I think I might want to put it in Albuquerque. But we can discuss that later.

Representative Tiberi. Well, you might, you might. But we don't have anybody from Albuquerque on the panel to answer the question, so we will just use Ohio. But it could be Albuquerque. It could be a manufacturer in Albuquerque and a community college president in Albuquerque. And his question to you would be, from a community college president's perspective and from a manufacturer's perspective who has been around, in your case, 30 years, what do I do to get 5,000 workers employed in your region? Tell me, should I be concerned and look to Michigan, New Mexico, New Hampshire? How would you answer that question?

Dr. Harrison. I will start this time. I think my first question to him would be, how creative are you willing to be? Because we in Ohio, central Ohio, we have got the building blocks that would be able to get 5,000 people ready to go for her or his business. It would take a collaborative effort. It would take a community effort. But I say all the time I have got 26,000 students at Columbus State, they are all looking for a job or for a better job. There is a way, there is a pathway to make that happen with this employer.

What we are seeing is all employers are struggling with this. Those who are creative in their HR practices are really starting to turn it into a competitive advantage, and the gentleman to my left I think can speak to that.

There wasn't a career path for people with associate degrees at Honda 4 years ago. And now we are filling rooms with information sessions and those kinds of things, and that is being noticed by employers from other industries. So these creative, inclusive business practices, from an HR standpoint, is what we are seeing leading employers really start to pay attention to.

Mr. McLemore. So Dr. Harrison nailed it, as I thought he would. It is a question of how much does that CEO and that company want to engage in that collaborative effort within that State.

So for Ohio, just speaking from our perspective, currently with our partnership with Columbus State, but in addition to that, JobsOhio, so local and State government, there is a lot of momentum that is happening around discussions like what we are having today. And I think if a company and a CEO wants to really under-

stand how to make that happen quickly, they have to be willing to engage directly, because I think the infrastructure is there for Ohio.

So it is understanding what infrastructure exists, whether that is through data, but that partnership and a willingness to come to the table and be innovative and speak frankly about what their needs are, and then how can a community college accommodate those needs.

Ms. Furchtgott-Roth. You also find that people move. So when the Boeing plant was opened in South Carolina, people were moving to north Charleston to take those jobs. North Dakota, when there was the oil boom, people were moving to North Dakota. Stephen Moore has written a series of books called "Rich States, Poor States" documenting this movement from States that don't have jobs to States that do have jobs.

Mr. McLemore. Mr. Chairman, could I add something to that? So a thought came to mind.

One of the things that we did with Columbus State is we conducted a specific workforce analysis of the specific role that we were struggling to fill internally. And what we did is we turned the results of that over to Columbus State so that they could accurately align their curriculum to the specific needs that we had.

So in addition to understanding and being collaborative, I think for the company, it would be in their best interest to speak directly about what skills they are looking for and what their needs look like, and how can the community college and other educational institutions provide students that have those skills.

Dr. Harrison. Mr. Chairman, if I may, it really is a partnership and a kind of collaboration that Scot is talking about. I was in a meeting not unlike this or a conversation not unlike this with chief HR people from our region from a lot of different industries recently, and I was just asking them about their employment practices. And the conversation went something like, well, we go to the, you know, our local university and we look for accounting majors with a 3.4 GPA or above. And oh, by the way, we are trying to diversify our workforce. And we all kind of laughed. I am like, well, how is that working for you? And then I said, you know, my student served 6 years in the Air Force, it has taken him 4 years to earn a 2-year degree because he is working and supporting his family. He is never leaving Columbus, and he is going to work hard for you for the next 30 years. I had three of them come up to me after the meeting and say, I want the Air Force guy, but my current HR practices wouldn't allow me to hire him. He wouldn't make it through the system.

So, again, they are starting to recognize—but, again, progressive companies are starting to recognize that that is an issue and they are making those changes.

Representative Tiberi. One final—go ahead. No, no, please, because this is a little bit off. Go ahead.

Senator Heinrich. So I find that fascinating and heartening, and I want to go back just real quickly to something we touched on earlier, but, frankly, I didn't feel like we heard a lot of solutions to, and that is that geographic mismatch between urban and rural areas.

And I don't believe that we can just say the solution is going to be everybody is going to move to an urban area. We need a vibrant rural small town economy in this country and one that is not purely based on low-wage service-sector jobs. So what should we be thinking about in terms of how we can invest in that population, in their education, and in business development opportunities to make sure that the solution is not just, okay, you are going to chase the job? That pull is always going to be there for people to move to places where jobs are created, but we can't afford to turn our back on rural America. We need to invest in jobs there.

Dr. Harrison. My light is on so I will go.

Senator Heinrich. You drew the short straw, Dr. Harrison.

Dr. Harrison. Well, we face this in Ohio, because we have, you know, very successful and growing urban populations and we have got large rural areas. And one of the things that we are working with when we think about statewide strategy is, in a technologically driven workforce, how distributed can the workforce be?

And we do believe that there are technology-enabled jobs with large and small companies where people don't have to leave their community, they may not have to leave their home. So things like broadband access and those kinds of things to rural areas has become really important, but also I think just an understanding of the possible. Because in so many rural areas in Ohio, the aspiration is to be the manager of McDonald's, and there is nothing wrong with that, but that is all they see. Scot talks about the line of sight.

So the ability to work with large technology companies and help people understand that these are within their reach. There are many tens of thousands of jobs that are unfilled in Ohio. These are the steps to get there. It may not even require a bachelor's degree or even associate degree. A technical certificate can get you started. And with the right employer, you may not have to even leave——

Senator Heinrich. I liked your example of the Air Force veteran, in part, because I think that line of sight needs to go in both directions. So people need to know what is possible in places where those jobs may not be there today, but they could be, and then employers also need to understand the inherent advantages that you may acquire with a workforce in a rural area that has an incredible loyalty to the business itself and an investment in community that you might not find in other places.

Representative Tiberi. You had a thought there.

Mr. McLemore. No. I am just realizing I misunderstood Congressman LaHood's question, I think.

So our challenge is really, as the demographics, as it was stated, we are losing people in rural areas populationwise to urban areas. For Honda, we are focusing on our 15-county radius. As I mentioned before, our facilities are located in rural communities. Our focus is there. However, it includes Franklin County and other urban areas in which, actually, I live.

So I am familiar with the challenges of getting people that live in urban areas out to a Marysville, Ohio. Even though I have been doing it for 30 years and I think it is great, it is an awareness of those opportunities out there. But we are continuing to focus on

our local communities, whether they be rural or whether they be urban.

Representative Tiberi. Senator Hassan.

Senator Hassan. Thank you. And this has really been a great discussion, and I greatly appreciate it.

You know, one of the things that some businesses in New Hampshire have been doing to this whole issue of line of sight is not only working to help young people understand the career pathway, and we have a whole career pathway initiative in our public school systems with our community college systems right now, but we also see companies bringing in guidance counselors and parents, especially around advanced manufacturing, because so many parents think that manufacturing is something that will injure your child in a dirty environment instead of the high-tech effort that it now is.

But I also just wanted to touch on a couple of the efforts that the Federal Government has invested in to help with the kind of partnerships that Dr. Harrison and Mr. McLemore, you have been talking about so well this morning.

One of them came with the passage of the Workforce Innovation and Opportunity Act in 2014, which was integral in helping States expand sector partnerships, to ensure workforce training is coordinated and responsive truly to the employer's need. And they are led by industry and a makeup of different stakeholder groups. It is a sector partnership model. And are you familiar with it? Do you think it is something that if we expand it, it would be helpful in developing the kind of workforce we need?

Dr. Harrison. In central Ohio, we really do focus on a sector strategy approach, and a lot of that is a cascade from our statewide economic development plan. And the answer is yes, we see it working really well.

We also see real advantages—and Scot talks a lot about this in our local groups—of having cross-sector——

Senator Hassan. Right.

Dr. Harrison [continuing]. Conversations as well, because, as I said before, the model that Honda has put in place with their co-op program, we have got companies from other industries that are trying to replicate. So I think both are important.

Senator Hassan. Yeah, because the other program that has been very important in New Hampshire is our TAACCCT grant program, and I think you referenced a similar program. Our Great Bay Community College started an Advanced Technology & Academic Center largely through the use of a TAACCCT grant that brought an additional $4 million in State funds, and then participation and partnerships of companies all across the region. So we now have more than 100 partners in industry as well as State and Federal agencies. And the Center is helping to create a program that gives students advanced manufacturing skills.

And, again, it seems to me that you are both saying, strategically done with good partnerships so that the educators understand the needs of the actual industry and a variety of industries, they can really make a difference. Is that a fair assessment?

Dr. Harrison. Those kinds of Federal investments can truly be catalytic. We were involved in a TAACCCT grant in logistics that

included colleges from eight States. And the ability to really bring those kinds of things to scale and the Federal investment gets people to the table and really brings employers, K–12, and the community college kind of run in the same direction and really trying to move the needle forward.

Senator Hassan. The last question I have about this issue is just—strikes me, because it is something that one of our major employers, a large hospital in the Seacoast of New Hampshire took on, but it is understanding that, as we work with a labor pool that may have had low participation rates or lack of education or training, often these folks are working at entry-level jobs. And the training programs that have traditionally been offered even through community colleges have been, you know, 6 months, a year, 2 years.

What this healthcare organization decided to do was help train people up in what is normally a 2-year curriculum in kind of a series of boot camps over weekends, so that you are still giving people the opportunity, to that Air Force vet's example, of working and supporting their families. But often, for single parents in particular, the notion that they could just give up their work for 6 months or a year to get highly trained is just not reasonable.

So are you seeing kind of different ways of developing the curriculum and the schedule for students so that they can do both of these things?

Dr. Harrison. In more and more of our programs, our curriculum design is based on stackable certificates so that students are able to earn a workforce-based credential with market value before earning the associate degree, but what they have earned there counts fully towards their ultimate earning of the associate degree, because most students are working while they are going to school.

I do want to follow up, if I may, on the Federal investment idea. And, Mr. Chairman, you will be very familiar with this. The city of Columbus competed against 77 other cities last year with the U.S. Department of Transportation grant called Smart Cities Challenge. A similar kind of program in this workforce area could truly be catalytic. And if you look at how that has brought the community together. It was a $40 million investment from the U.S. Department of Transportation. Central Ohio has now put in over $500 million in private and local funding to really make that a benchmark that we think will move the needle not just for central Ohio but for our Nation.

The same kind of model could work in this workforce misalignment area when you are getting the right people at the table. And, again, Federal funding can really help move that along.

Senator Hassan. Well, thank you.

And thank you, Mr. Chairman.

Representative Tiberi. A perfect segue. A final question, Dr. Harrison, because you mentioned this in your testimony.

Anecdotally, I have heard in my district, a person in a rural area, who has a job in Columbus downtown, but has a beat-up car. Car breaks down, now they can't get to work, no bus line; opposite to, you have a person who lives in the urban part of Columbus, job is in Dublin, a suburb, or Amazon on the east side, no bus line. How

does that Smart Cities Challenge, in your mind, fix that, or does it?

Dr. Harrison. Well, we are hoping it does, because, first of all, our public transportation, COTA, is a key part of that, and it wasn't necessarily part of Smart Cities, but it was part of another Department of Transportation grant where we have got a rapid transit line that now comes down Cleveland Avenue, where the buses signal the traffic signals so that there are fewer lights that they have to stop at. And the hub of that is right in front of our bookstore at the college, which is kind of the entry to the city.

So what that will do, we hope, is promote more public transportation, because now, instead of sitting on a bus for 45 minutes or an hour one way, when you have got children or a job you have got to get to, it makes it much more efficient. We also think that the Smart Cities work specifically should be able to contribute to a much more robust ride-sharing operation.

If you look at the traffic that comes into our campus every day, it is full of cars with only a driver, and they are following each other down 670 or 71 or Cleveland Avenue, and the ability to really create a smarter infrastructure around those connections I think will be important. If you layer on then an electric or autonomous vehicle that is part of that, it really can change the dynamics of the region.

Representative Tiberi. Wow, this has been fascinating. I hope you four have thought so as well. I think the committee here has gotten a lot out of this.

So I appreciate your time today. Thank you for making yourself available. We like to remind the witnesses that the record will be open for 5 business days for any member that would like to submit questions for the record. Thank you all so much.

This hearing is adjourned.

[Whereupon, at 11:46 a.m., the committee was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF HON. PATRICK J. TIBERI, CHAIRMAN, JOINT ECONOMIC COMMITTEE

Good morning and welcome to the Joint Economic Committee's hearing on job vacancies and the labor market. I want to especially welcome our Ranking Member Senator Heinrich, as well as the other Members of this Committee who have expressed a keen interest in exploring this important economic topic.

On the surface, low unemployment and a large number of vacancies suggest that the labor market is tightening. However, wage growth has been slow and many potential workers remain on the sidelines. Something is not yet right with the U.S. labor market.

I've heard from many employers, in Ohio and around the country, that they are struggling to fill good-paying job vacancies. These employers tell me about people not being able to pass a drug test, and people not having the skillset to qualify.

I believe there are causes on the demand side as well as the supply side of the labor market, and among both are economic policies by the Obama administration that weakened the recovery of business investment, labor productivity, and work incentives after the last recession.

Business investment and productivity must rise faster for wages to rise faster, and more people must join the workforce to raise economic growth.

The U.S. population is still growing. Since just prior to the recession, the population has increased by 22 million people of working age, yet the labor force has increased by only 6 million people. The baby boom generation is moving into retirement, but people in their prime working years also are participating less in the labor force than before the recession.

In addition to the work Congress and the Administration are doing to reform taxes, improve regulation, and alleviate unnecessary government mandates, we also must focus attention on improving the institutions that prepare our workforce for new challenges.

That is why I have invited expert witnesses to this hearing who can provide perspectives from the economist's, educator's, and employer's point of view.

We must explore the value to the economy and individuals of sending ever more people to college, how well high schools position graduates for the workplace, how employer requirements inform the educational system, and what employers are contributing to the skill development of current and prospective employees.

In the United States, we must find better ways to equip young people and workers of all ages with marketable skills and the ability to adapt to changing market demands as they progress through their careers. I look forward to learning from the insights of our expert panel today on how to improve worker proficiency, flexibility, and motivation.

Faster economic growth and rising living standards for American families will result from getting this right.

OPENING STATEMENT OF HON. MARTIN HEINRICH, RANKING DEMOCRAT, JOINT ECONOMIC COMMITTEE

Thank you, Chairman Tiberi, and thank you to our panel for being here today.

The employment picture is brighter than it was eight years ago, but not as bright as we want or need.

Too many Americans can't find a job, or are in jobs that pay wages too low to achieve financial security.

Employers complain they can't find candidates with the right skills to grow their business.

And some parts of the country—for example, many rural areas—have largely been left out and need basic investment.

Today, we are focusing on one way to create opportunities for more Americans—namely, by investing in education and training options.

Some industries in some regions of the country face a mismatch between the skills employers need and the skills workers have.

Addressing this is important, but that alone won't adequately improve the economy or strengthen financial security for families and communities.

To do that, Congress must work with State and local leaders to take an all-of-the-above approach that supports workers and businesses.

In the 21st Century economy, college is increasingly important for financial security.

Congress has a significant role to play in making sure students are not priced out of the future they want and are ready to work for. Access to an affordable college degree must be available to every student.

We also know that a college degree is not and should not be the only path to a bright future.

Career and technical education, apprenticeships and other training programs lead to good-paying jobs.

Here, community colleges have an important role to play because they understand the needs of local employers, are committed to creating opportunities for their students, and can design programs and courses that are responsive to employers' current and future needs.

TechHire Albuquerque launched earlier this year in New Mexico.

Using a Federal grant program, Central New Mexico Community College partnered with employers and State agencies to create an IT pipeline—by providing training, work experience, and job placement.

Graduates learn new computer coding skills, earn industry-recognized credentials, and are able to put those skills to use with area employers.

Employers are able to fill open positions with candidates with proven skills.

That's the type of innovation and creative problem-solving Congress should be promoting.

It's also critical that we target training at high-growth sectors of the economy.

That's what Central New Mexico Community College has done with its STEMulus center, offering coding bootcamps and new classes in Java, Android and Salesforce.

This week, Senator Gardner and I introduced the CHANCE in Tech Act, which encourages educators and businesses to start apprenticeship programs for the tech sector. This will connect more Americans to a growing sector where jobs are opening up every day.

In an all-of-the-above approach, we must recognize that investing in the workforce starts well before college or even high school. It starts by investing in proven programs that set children up for success later in life.

This is why access to universal pre-K is so important and why I am a strong advocate of the two-generation approach, which provides quality early education for children while providing workforce training for parents.

We've seen this work in New Mexico. The United Way's Early Learning Center in Santa Fe offers year-round, full-day services for children alongside technology, employment and social service assistance for parents.

For workers to remain competitive in the future economy, learning and skills development must continue over a lifetime.

Companies must get back in the business of investing in their workers. Not just because it's the right thing to do, but because it's the prosperous thing to do for businesses and workers alike.

There is much work for us do here. For the Nation to be competitive in the future economy, we must find new solutions.

I look forward to hearing from our witnesses.

The Puzzle of Job Vacancies

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Manhattan Institute for Policy Research

Joint Economic Committee
July 12, 2017

The Puzzle of Job Vacancies

Chairman Tiberi, Ranking Member Heinrich, Distinguished Members of the Committee, thank you for the opportunity to testify today. I am a senior fellow at the Manhattan Institute, where I direct the Institute's economics portal, Economics21. I am a former chief economist of the U.S. Department of Labor, and a former chief of staff of the Council of Economic Advisers. I am an adjunct professor of economics at George Washington University, where I teach Labor Economics and Public Policy.

I am especially honored to testify today because the mismatch between vacancies and available labor is an important policy question. At the same time that students are graduating with an average of $30,000 in debt, according to the New York Federal Reserve, and facing unemployment, jobs in industries including financial services, healthcare, and welding remain unfilled.

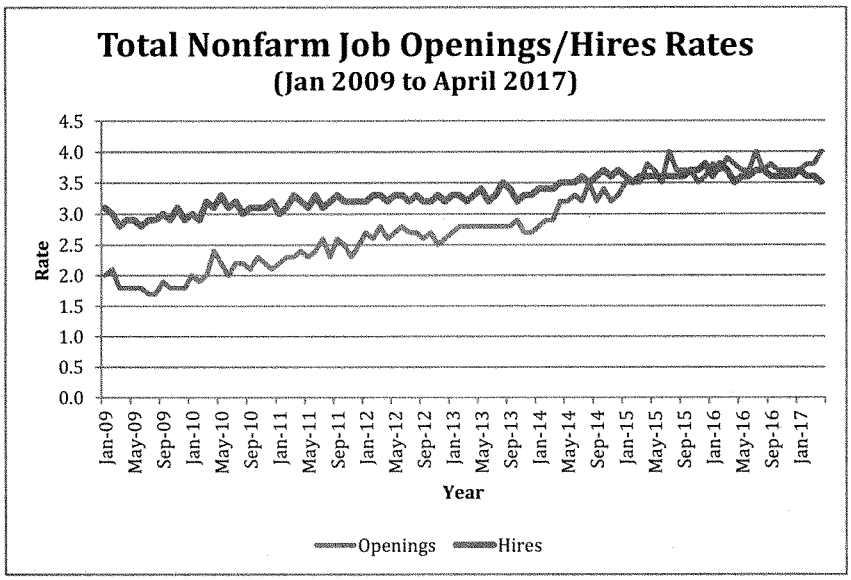
My testimony is divided into four parts. The first part of the testimony describes the problem of unfilled job vacancies. The second part discusses how guiding students towards community colleges can reduce costs of education and train students for available jobs. The third part describes the experience of the United Kingdom in getting people back in the labor force. The final section presents recommendations.

The Problem: Unfilled Job Vacancies

Although the unemployment rate has been steadily declining since the Great Recession, part of the decline has been due to the shrinkage in the labor force participation rate – which is one of the reasons that the unemployment rate has contracted. This decline, from about 66 percent in 2009 to less than 63 percent today, has left many prime-age men and women on the sidelines, out of the labor force. Since 2007, participation rates have declined by four percentage points for men and by two percentage points for women.

When the recession ended in 2009, the hiring rate was 1.1 percentage points higher than the job openings rate.[1] People were unemployed because jobs were not available. Since then, the job openings rate has been gradually rising. In April 2017, the hiring rate was 0.5 percentage points lower than the job opening rate. This is illustrated in Table 1.

Table 1



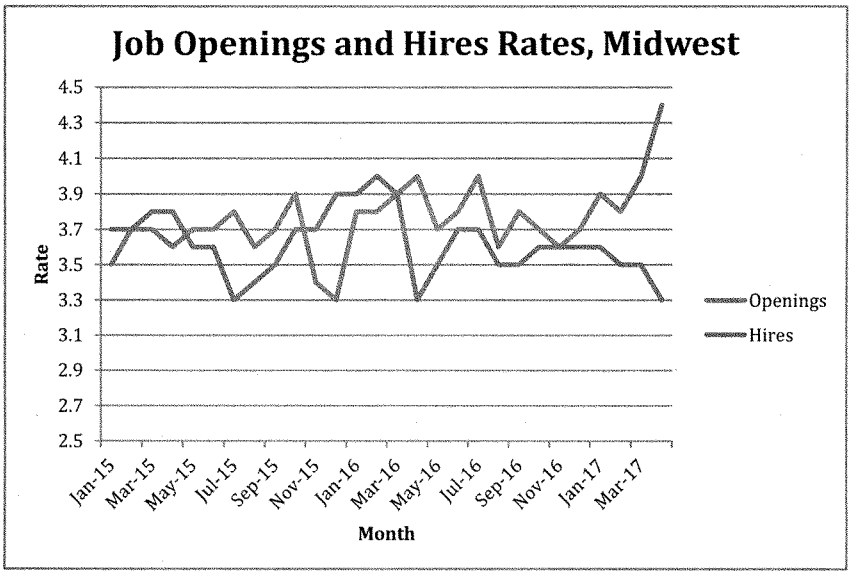
Source: Bureau of Labor Statistics (2017). "Job Opening and Labor Turnover Survey," https://www.bls.gov/jlt/

These averages mask regional differences. The Midwest and the Northeast have fared worse than the U.S. average.

[1] The hires rate can be higher than the job openings rate, according to the Bureau of Labor Statistics, because the two rates are calculated slightly differently. The hires number is the cumulative number of hires for the entire month, and to get the rate, BLS divides the hires number by the employment number. To calculate job openings, BLS uses the total number of job openings that are available at the end of the month, so the number is not cumulative. The job openings rate is calculated by dividing the sum of job openings and employment by employment.

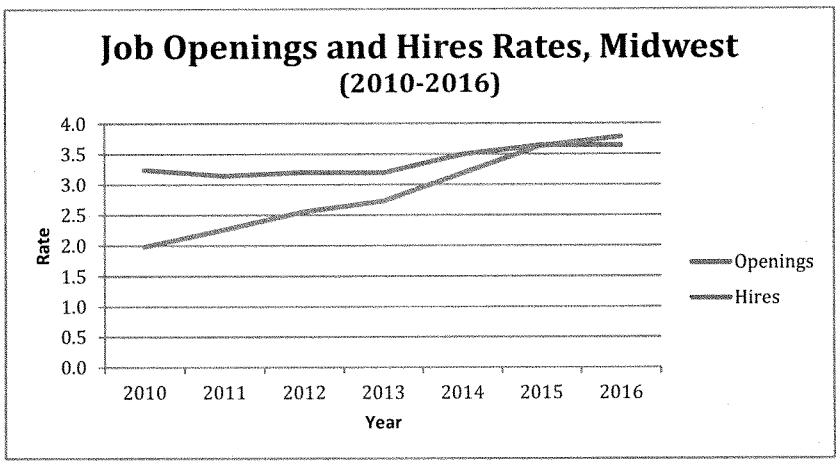
Consider the Midwest. As can be seen in Table 2 and Table 3, over the past year the rate of job openings has been above the rate of hires. The job openings rate has increased from 4.0 percent in April 2016 to 4.4 percent in April 2017, and the hires rate has stayed the same, at 3.3 percent. Now there is more than a full percentage point difference.

Table 2



Source: Bureau of Labor Statistics (2017). "Job Opening and Labor Turnover Survey," https://www.bls.gov/jlt/

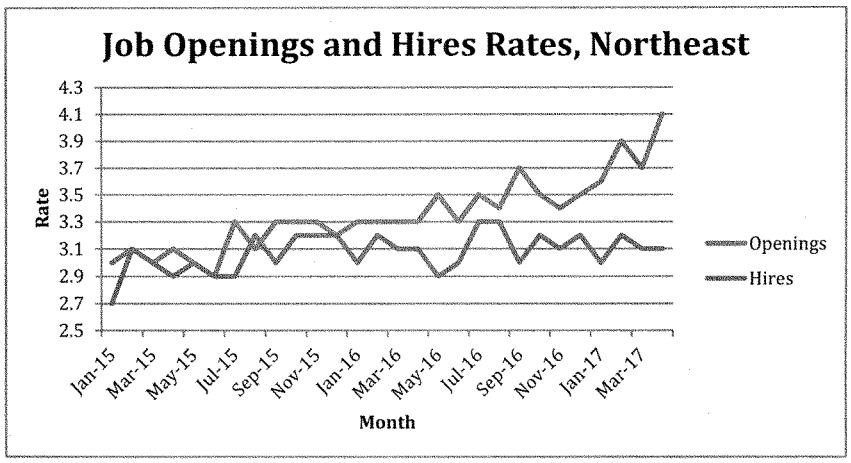
Table 3



Source: Bureau of Labor Statistics (2017). "Job Opening and Labor Turnover Survey," https://www.bls.gov/jlt/

The Northeast shows a similar divergence, about a percentage point, between hires and job openings. Rates start diverging in the fall of 2015.

Table 4



Source: Bureau of Labor Statistics (2017). "Job Opening and Labor Turnover Survey," https://www.bls.gov/jlt/

Table 5

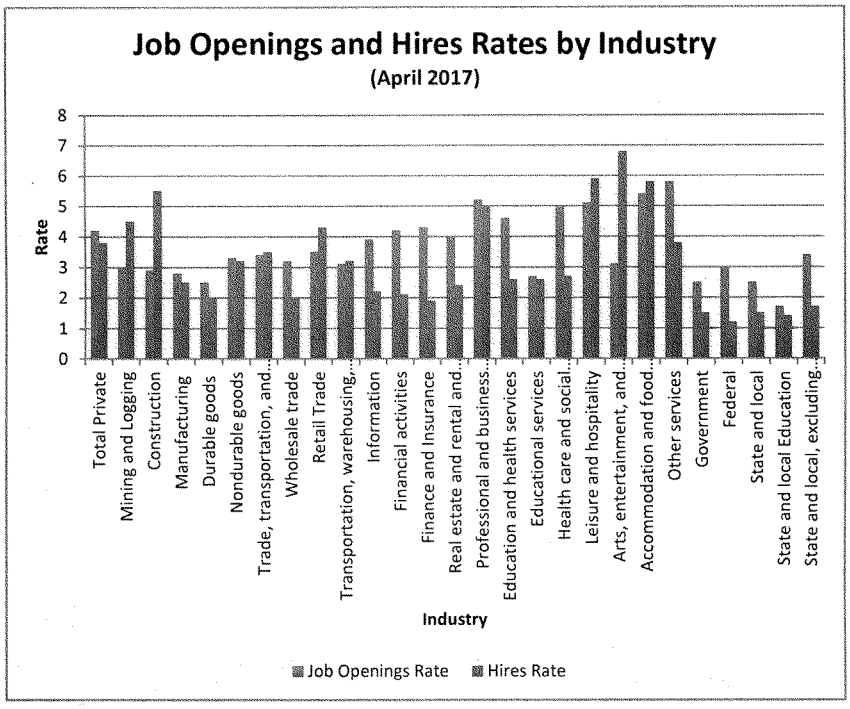
Source: Bureau of Labor Statistics (2017). "Job Opening and Labor Turnover Survey," https://www.bls.gov/jlt/

As well as regional variations, different industries exhibit different patterns, as can be seen in Table 6.

Financial activities, which include the subcategories of real estate and rental companies and finance and insurance, have higher job openings rates than hiring rates. Similarly, the information, services, and health care and social services show a large number of unfilled vacancies.

One way to solve the mismatch would be to improve training by using community colleges. This will be discussed in the next section. We can also learn from the United Kingdom's experience and put in place systems to encourage people who are receiving benefits to take jobs when they are offered.

Table 6



Source: Bureau of Labor Statistics (2017). "Job Opening and Labor Turnover Survey," https://www.bls.gov/jlt/

The Role of Community Colleges

Community colleges can increase the earnings power – and thus, the upward economic mobility – of their students. I performed research using data on individual students from the State of Florida in 2009, following students with different grades and educational choices over time to see how much they earned.[2] These results have been extended and confirmed by a study published

[2] Diana Furchtgott-Roth, Louis Jacobson, & Christine Mokher (2009). "Strengthening Community Colleges' Influence on Economic Mobility." *Economic Mobility Project*.

by the Community College Research Center of Columbia University in April 2017.[3] To maximize students' opportunities, the American Association of Community Colleges has implemented a Pathways Project in 30 colleges to guide students into better-earning careers.

Community colleges have several roles. The first is helping students complete the coursework necessary to transfer to four-year colleges and attain bachelor and graduate degrees. The second role is helping students complete career and technical courses, which can lead to high paying jobs even without four-year college degrees.

Using an analysis of a large, detailed database covering the schooling and employment of 84,000 Florida students who left the 12th grade in 2000, my coauthors and I showed that jobs in many high-return fields such as health care, building trades, and protective services are accessible to community college students with low high school GPAs. By providing career and technical courses, community colleges play a vital role in increasing the earnings of students who would have difficulty boosting their career by completing demanding academic programs required to enter many high-return fields.

Community colleges can boost the earnings of their high-performing, low-income students by helping them attain associate degrees and transfer to 4-year colleges. They can also boost the earnings of low-income students with all levels of high school performance who do not transfer to 4-year colleges by helping them to complete high-return courses and attain certificates and associate degrees. However, community colleges could have even greater success in increasing economic mobility if steps were taken to reduce impediments that prevent students from fully developing skills of value in the work place.

Certain concentrations lead to much higher returns than others. Students who complete substantial numbers of courses in career and technical fields have much higher earnings than students who complete a comparable number of credits in

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http://www.pewtrusts.org/en/research-and-analysis/reports/0001/01/01/strengthening-community-colleges-influence-on-economic-mobility

[3] Davis Jenkins, Hana Lahr, & John Fink (2017). "Implementing Guided Pathways: Early Insights From the AACC Pathways Colleges."
http://ccrc.tc.columbia.edu/media/k2/attachments/implementing-guided-pathways-aacc.pdf

the arts and sciences alone. This is true for students who obtain both two-year and four-year degrees, students who complete two-year degrees alone, and for students who obtain certificates.

The primary personal impediments that prevent high- and low- performing community college students from completing more high-return courses are lack of information about the returns to various fields of study, the aptitudes needed to do well in different courses, their own aptitudes, and the characteristics of jobs they could enter after completing different sets of courses.

That is why personalized guidance such as the AACC Pathways Project has the potential to make a substantial contribution.[4] The analysis of this effort, by David Jenkins, Hana Lahr, and John Fink, published in April, shows that students benefit from information about the educational options open to them; the consequences of their choices in terms of their effect on completing a program leading to higher earnings, the time and cost of completing the program, and the need to enhance their academic preparation; sources of financial aid; and sources of supportive services.

Telling students about their options and potential future earnings can lead them to alter their course selection to greatly increase their success in completing programs and enhancing post-college earnings. Helping students discover interesting programs that lead to better jobs provides motivation necessary for students to remain in college and obtain valuable certificates and degrees rather than leave school with no credential.

Progressing further through college does not invariably make students better off in terms of future earnings. It depends on the fields of study selected. Students who obtain certificates have much higher earnings than students who obtain two-year degrees in a low-return concentration and do not continue to obtain four-year degrees. Students who obtain terminal two-year degrees in moderate or high-return fields have higher earnings than students who obtain four-year degrees in low-return fields.

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[4] Ibid.

These results suggest that community college students can substantially raise their earnings by establishing a base on which to build. They can earn two-years' worth of credits and then subsequently obtain four-year degrees. Or they can earn one years' worth of credits and then complete a certificate or two-year degree in a career or technical field.

Often the goals that are given the greatest attention are those that would improve educational achievement and earnings, but require that students complete more courses, complete courses that are more academically challenging, and by implication, require overcoming family and financial impediments to attend four-year colleges and attend school full-time.

Key concentrations such as information technology and engineering require strong performance in STEM-related courses. Nevertheless, there are some segments of high-return concentrations that do not strongly depend on having high levels of academic skills, such as courses that prepare students for some of the "helping" occupations in healthcare and education – occupations that now have vacancies.

In sum, an important and widely-recognized way for community colleges to further boost students' earnings is to help more high-performing community college students transfer to four-year colleges. An even more vital and less widely-recognized way for community colleges to increase students' earnings is to help them select suitable high-return courses that would increase the likelihood they would leave school with valuable workplace skills. Additional funding is needed to provide more slots in high-return courses.

Comparing the United States and the UK Experience

Since 2000 the United States and the United Kingdom have seen an increasing divergence in the labor force participation rates. The 2016 UK labor force participation rate for people between 15 and 64 years old was 77.6 [5] compared to 73 percent in the United States.[6]

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[5] OECD (2017), Labour force participation rate (indicator). Doi: 10.1787/8a801325-en (Accessed on 30 June 2017)
[6] OECD (2017), "Main Economic Indicators - complete database", *Main Economic Indicators* (database). http://dx.doi.org/10.1787/data-00052-en (Accessed on 05 July 2017)

In 2001, the United Kingdom and United States both had labor force participation rates for prime age workers—defined as those ages 25 to 54—of 84 percent. Since then, the UK rate has increased to 86 percent[7] and the U.S. rate has declined by more than two percentage points to fall below 82 percent. [8]

What is the United Kingdom doing that the United States could emulate? A big reason for the change in the LFPR over the past two decades, and especially since 2010, is the Welfare Reform Act 2012.[9] This act overhauled the welfare system in the UK by creating one benefit known as Universal Credit. The program replaced the working tax credit, the child tax credit, housing benefit, income support, income-based job seeker's allowance, and income-based employment and supportive allowance.

The goal of this new program was to transition people into work by "reducing the support a person receives at a consistent rate as earnings increase." The program has been phased in from 2013 to 2017. In 2013, no new applicants were placed on the old welfare programs. Once everyone from the old system has been transitioned over to the new system, the old system will be abolished completely. While transitioning over to the new system, interim measures of support are provided.

In 2017, 530,000 people are currently on Universal Credit. [10] Out of these, 200,000 (38 percent) are employed. Most claimants on low incomes will still be paid Universal Credit when they first start a new job or increase their part-time hours. They receive a single monthly household payment, paid into a bank account in the same way as a monthly salary.

In order to get Universal Credit, people must show that they are actively looking for work by registering with employment agencies and applying for jobs. More important, when they are offered a job, they cannot turn it down. If people refuse job offers, their payments are reduced.

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[7] Ibid.
[8] Ibid.
[9] Library of Congress (2015). "Great Britain: Welfare Reform Act 2012." https://www.loc.gov/law/help/welfare-reform/great-britian.php
[10] Department for Work & Pensions (2017). "Universal Credit Statistics." https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/618482/universal-credit-statistics-to-11-may-2017.pdf

The number of people on benefits has been declining. In 2016, 3.7 million were on key out-of-work benefits, compared to 5 million in 2011. [11]

Employment for those aged between 16 and 64 has increased from 71 percent in 2012 to 75 percent in of 2017.[12] Unemployment, for people 16 and over, has also largely decreased during this time period from 8 percent to 4.6 percent.[13] The economic inactivity rate (not working and not seeking or available to work) for people aged 16 to 64 has decreased by 2.4 percentage points since 2012. More people are searching for jobs than before.

[11] "The Key-out-of-Work benefits data provides counts of working age claimants of the following key benefits; Bereavement Benefit, Disability Living Allowance, Employment and Support Allowance, Incapacity Benefit, Income Support, Jobseeker's Allowance, Universal Credit, Carer's Allowance and Widow's Benefit" (Source: DWP quarterly stats summary may 2017)
[12] Office for National Statistics (2017). "Employment rate (aged 16 to 64, seasonally adjusted)." https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/lf24/lms
[13] Office for National Statistics (2017). "Unemployment rate (aged 16 and over, seasonally adjusted)."
https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/timeseries/mgsx/lms

Table 7

Comparison of American and British Labor Force, 2000-2016 Ages 15 to 64						
	Labor Force Participation Rate		Employment Rate		Unemployment Rate	
Year	**UK**	**US**	**UK**	**US**	**UK**	**US**
2000	75.5	77.2	72.4	74.1	5.6	4.0
2001	75.3	76.8	72.6	73.1	5.0	4.8
2002	75.3	76.4	72.6	71.9	5.2	5.9
2003	75.3	75.8	72.8	71.2	5.0	6.1
2004	75.3	75.4	72.9	71.2	4.7	5.6
2005	75.4	75.4	73.0	71.5	4.8	5.1
2006	75.7	75.5	72.8	72.0	5.4	4.7
2007	75.5	75.3	72.7	71.8	5.3	4.7
2008	75.8	75.3	72.7	70.9	5.7	5.8
2009	75.7	74.6	71.1	67.6	7.7	9.4
2010	75.4	73.9	70.4	66.7	7.9	9.8
2011	75.5	73.3	70.3	66.6	8.2	9.1
2012	76.1	73.1	70.9	67.1	8.1	8.2
2013	76.4	72.8	71.5	67.4	7.7	7.5
2014	76.7	72.7	72.8	68.1	6.3	6.3
2015	76.9	72.6	73.6	68.7	5.5	5.4
2016	77.6	73.0	74.4	69.4	5.0	4.9

Source: OECD (2017). "Main Economic Indicators- complete database," Main Economic Indicators (database), http://dx.doi.org/10.1787/data-00052-en (accessed on 05 July 2017).

In contrast, in the United States, almost 60 percent of nonworking men[14] are on federal disability benefits, 13.2 percent are on food stamps[15] and 25 percent are on Medicaid.[16]As these benefits have increased, fewer Americans are working. One disincentive to working is that low-income Americans face extraordinarily high marginal tax rates, often well in excess of 40 percent. Each dollar of income for a low-income individual may mean the loss of substantial federal benefits. These losses of benefits are a perverse form of taxation, discouraging poor Americans from finding work and improving their economic condition. These high marginal tax rates at the bottom discourage labor force participation.

Most of the decline in labor force participation is from those under 54, not from older Americans. One cannot say that all of the decline was due to benefits, but they may have contributed.

University of Chicago economics professor Casey B. Mulligan, provides new evidence that increases in federal benefits since 2007, such as unemployment insurance, the Supplemental Nutritional Assistance Program (formerly food stamps), and other means tested programs, have discouraged people from working. [17]

When individuals receiving these federal benefits begin to work, they lose benefits and effectively incur a high federal marginal tax rate. These high marginal tax rates are caused by phaseout levels of benefits at different income levels. Mulligan shows that federal benefits have contributed to a decline in the labor force participation rate. The ratio of people with jobs or looking for them to the population of working age (now 62.7 percent) peaked in 2000 and then gradually declined about one percentage point until 2007. Since 2007, when benefits were increased, the ratio declined by almost four percentage points.

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[14] Social Security Administration (2016). "Annual Statistical Report on the Social Security Disability Insurance Program, 2015."
https://www.ssa.gov/policy/docs/statcomps/di_asr/2015/index.html
[15]United States Department of Agriculture (2017). "Supplemental Nutrition Assistance Program (SNAP)." https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap
[16] Medicaid and CHIP Payment and Access Commission (2016). "MACStats: Medicaid and CHIP Data Book." https://www.macpac.gov/wp-content/uploads/2016/12/MACStats_DataBook_Dec2016.pdf
[17] Casey Mulligan, *The Redistribution Recession: How Labor Market Distortions Contracted the Economy* Oxford University Press, 2012.

Mulligan also documents the effects on the labor force of the Affordable Care Act.[18] He explains that the likely effects will be reduced employment. Some employees will have to work more, and others less, with an average reduction in employment of 3 percent.

Mulligan's work adds to a body of prior studies by Urban Institute fellow Eugene Steuerle and others that document disincentives to marriage among the poor and middle classes due to phaseouts of multiple benefits. The disabled, who fear the loss of Medicaid, face a particular disincentive to work, according to testimony by Steuerle before a House Committee on Ways and Means hearing.[19]

One factor in the decline in the share of the population available to work is the increase in benefits between 2007 and 2009, some of which continues today. These include expanded eligibility and benefit levels for food stamps and disability insurance; the Affordable Care Act, with subsidized premiums; subsidies for continuation of employer-provided health insurance; and means tested mortgage modification.

What is troubling is that as the economy gradually improves, the labor force as a percent of the population is shrinking. With the population aging and a smaller share of younger workers, this trend will lead to steadily higher federal and state tax burdens on the young, even if Congress reduces taxes and modifies Social Security and Medicare benefits for future retirees. This is also a problem in Japan and Europe, where the ratio of the retired to the working is rising.

Since the Great Recession, programs have expanded in two ways. Eligibility has increased, and the programs have become more generous. By consolidating these programs and returning them to pre-recession levels, the employment rate would likely rise by eliminating some of the disincentives for people to work. An even more beneficial approach to these programs would phase them out gradually as Americans enter the labor market and find work. There is no magic formula for exactly how to phase out benefits as income increases, but a good

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[18] Casey Mulligan (2014). "The Affordable Care Act and the New Economics of Part-Time Work," *Mercatus Center*.

[19] C. Eugene Steuerle, "Statement of C. Eugene Steuerle on Marginal Tax Rates, Work, and the Nation's Real Tax System," Joint Hearing of the Subcommittee on Human Resources and Subcommittee on Select Revenue Measures, House Committee on Ways and Means, June 27, 2012.

rule of thumb would be to provide incentives for Americans receiving benefits to seek work rather than avoid it.

Constraints on Growth

In addition to removing artificial obstacles to labor supply, it is also important to remove constraints to economic growth and therefore to labor demand. Chairman Tiberi, as you stated so clearly in your Report on the 2017 Economic Report of the President, published in February, "The failure to surge back has left the economy below its potential output."[20] This failure has also reduced the demand for labor, discouraged people from working, and left them sitting on the sidelines.

This "failure to surge back" is due to policies from the Obama Administration and its appointees that have constrained the economy and have lowered investment and productivity.

According to the Bureau of Labor Statistics, labor productivity grew at an average rate of 1.1 percent from the end of 2007 to the third quarter of 2016, far below than the 2.3 percent rate from 1947 to 2007 or the 2.7 percent rate from 2001 to 2007.[21] The lackluster recent productivity growth means that the rate would have to grow to 11 times the rate experienced during the last five years in order to return the series to the long-term historical trend.

David Byrne of the Federal Reserve Board, Stephen Oliner of the American Enterprise Institute, and Daniel Sichel of Wellesley College show that mismeasurement of the prices of high-tech products masks the extent to which those prices have actually fallen over time.[22] Their adjustments show prices falling much more rapidly, and imply a different composition of recent productivity growth, although it is important to note that they still find slowing

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[20] Joint Economic Committee, *Report of the Joint Economic Committee on the 2017 Economic Report of the President*, February, 2017, page 5.
[21] Bureau of Labor Statistics (2017). "Labor Productivity Growth Since the Great Recession." United States Department of Labor. https://www.bls.gov/opub/ted/2017/labor-productivity-growth-since-the-great-recession.htm
[22] David Byrne, Stephen Oliner & Daniel Sichel (2017). "Prices of High-Tech Products, Mismeasurement, and Pace of Innovation." National Bureau of Economic Research. http://www.nber.org/papers/w23369

productivity growth and are skeptical that the slowdown is an artifice of measurement problems.

This means that multifactor productivity growth in the high-tech sector has remained robust, but in other sectors it has fallen precipitously. The authors are optimistic that this pattern of multifactor productivity growth implies that a new wave of productivity growth driven by developments in the digital and technology spheres could be coming, although they caution that policies that deter investment could attenuate future increases in productivity growth.

These include policies of the Federal Reserve, tax policy, and the growth of the administrative state's regulations. I have written extensively about these constraining policies over the past eight years, and I will briefly review each in turn.

I will begin with the Federal Reserve, because most people believe that the Fed is responsible for economic growth. No matter that the Fed cannot move the economy forward alone. Yet the Fed has substantial influence and has failed in its mission.

After the recession the Fed took swift action to lower interest rates and supply liquidity to the financial system. But policies that were appropriate in a time of recession were not necessarily appropriate four, six, or eight years later. The Fed's continued low-interest and high-balance sheet policy has not led to growth rates much higher than two percent.

The Federal Reserve Board's low-interest rate policy discourages savings and encourages people to take high risks, and dampens bank lending. It is especially harmful to seniors, who are forced to take on further risk in order to achieve required levels of income in retirement. This does not lead to a healthy economy. Now the Fed is gradually raising interest rates, but these remain at historical lows.

The Fed's low interest rate policy is only part of its accommodative stance. It holds over $4 trillion on its balance sheets, funds that were accumulated during its cycles of quantitative easing after the 2007-2008 recession. During the Fed's

program of "quantitative easing" after the Great Recession, the Fed was purchasing $85 billion a month in Treasuries and mortgage backed securities.

Mickey Levy, chief economist for the Americas and Asia, Berenberg Capital Markets and a member of the Shadow Open Market Committee, testified on unwinding the Fed's balance sheet before the House Financial Services Committee in April. He said, "The Fed's excessively large balance sheet does not serve any positive economic purpose, but has many downside aspects. It does not stimulate economic growth or increase bank lending. It exposes the government and taxpayers to potentially costly interest rate increases."

The Fed should develop a plan to gradually reduce its balance sheet in order to get rid of distortions and increase certainty in financial markets. This could begin with halting reinvestment of the funds of its maturing assets, which would immediately begin to shrink its portfolio.

Tax policy is another policy area that constrains growth. The average tax rate of businesses in Organization for Economic Cooperation and Development countries is 25 percent, compared to 35 percent for the United States. Canada's corporate tax rate is 15 percent. This means that our companies have an incentive to invert their ownership – to be owned by foreign companies.

For example, Burger King, the fast food chain, merged with Canada's Tim Horton's, a doughnut chain, in order to access Canada's lower taxes.

In America corporate profits are taxed three times, once at the business level, another time when they are distributed to individuals, and a third time at death. The high corporate tax discourages investment. The gap between American and foreign rates is widening, as foreign countries are lowering their rates even as the U.S. rate stays the same. In order to raise U.S. levels of investment, the corporate tax rate should be reduced to the range of 15 percent to 20 percent, as President Trump and House Speaker Ryan have proposed.

The high corporate tax rate results in double taxation of income for equity financing – raising capital by selling shares. When corporations take on debt in order to increase investment, the interest on the loan is tax-deductible. This is not true for equity financing. The returns to equity financing are taxed three

times. They are taxed once at the corporate level through the corporate tax, once at the individual level, through individual taxes on dividends and capital gains, and once at death, through estate and inheritance taxes.

After all these taxes are taken into account, the tax rate on equity can reach well over 50 percent, depending on the extent of the estate tax. This encourages firms to take on debt for financing, which is distortionary.

Not only is the U.S. corporate tax an outlier, but U.S. corporations are taxed on their worldwide income—a path taken by only 7 of the 34 OECD countries (including the United States).[23] This places America at a competitive disadvantage.

A global (or worldwide) tax system is uncompetitive with high tax rates because it imposes a high income tax rate on all profits, regardless of where they are earned. If an American company operates in the United States and Canada, its domestic affiliate pays U.S. taxes of 35 percent and its foreign affiliate pays U.S. taxes at 35 percent and Canadian taxes at 15 percent. America allows companies to deduct the taxes paid to foreign governments from U.S. taxes owed to the Internal Revenue Service, but this means that corporations always pay the full U.S. rate and are unable to take advantage of low-tax jurisdictions.

In contrast, a territorial tax system, common to most of our competitors, taxes only the income earned domestically. Our American company operating in Canada and the United States would pay U.S. taxes on its domestic income and Canadian taxes on its Canadian income. In this way companies can take advantage of low-tax jurisdictions. Business decisions can be made more efficiently, since bringing profits back domestically will not result in those profits being taxed again - thus, capital can go where it is most needed.

America raised just under $300 billion from the corporate tax in 2016,[24] according to the Office of Management and Budget, around 9 percent of all revenue, and the tax costs millions to administer. Most important, it effectively discourages investment in the United States.

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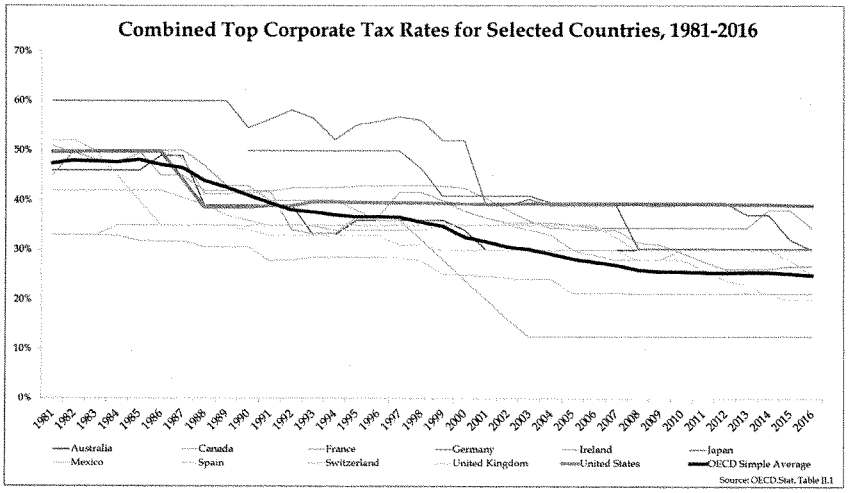
[23] Kyle Pomerleau (2015). "Worldwide Taxation is Very Rare," *Tax Foundation.* https://taxfoundation.org/worldwide-taxation-very-rare

[24] Office of Management and Budget (2017). "Table 2.1--Receipts by Source: 1934-2022," https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/hist02z1.xls

American companies hold offshore about $2.6 trillion of earnings from foreign operations.[25] No one knows how much would be repatriated with a lower U.S. tax, but it would be higher than it is now, adding to investment and employment. These are funds that, given proper incentive, can return to America and be used for capital projects, dividends/share repurchases, consumption, or job creation - all of which represent a boost to the weak economy.

It is difficult to overstate the importance of a sensible tax system to economic growth. Real GDP grew at an annualized rate of 1.4 percent in the first quarter of 2017.

Table 8



Source: OECD (2017). "Statutory Corporate Income Tax Rate," Tax (database). https://stats.oecd.org/index.aspx?DataSetCode=Table_II1

Another major constraint on growth is regulation. Some economists have attempted to measure the burden of regulation either in terms of costs or in

[25] Thomas A. Barthold (2016). "Barthold Letter to Brady and Neal," *Joint Committee on Taxation*. https://waysandmeans.house.gov/wp-content/uploads/2016/09/20160831-Barthold-Letter-to-BradyNeal.pdf

terms of pages in the Federal Register.[26] Neither of these is a particularly useful measure. It is practically impossible to measure correctly all the costs of regulation because such an estimate involves measuring indirect effects that can stretch across time and across national boundaries. All estimates of the costs of regulation that I have seen are low because of economists' inability to measure these indirect effects.

The number of pages in the Federal Register does not indicate the burden of a regulation. Some pages could be helpful, by giving clear instructions as to how to comply. Some pages could reverse prior regulations. What is needed is a better method of measuring the costs and benefits of regulations, and also of preventing executive branch agencies from going beyond the wishes of Members of Congress.

Congress needs to ensure that government agencies live up to the highest standards of cost-benefit analysis. If the cost of doing business in America unnecessarily rises as a result of burdensome regulations, all Americans suffer. For instance, EPA's regulations will adversely affect Americans living in energy-producing states, and Congress should be particularly careful about these geographic effects.

Cost-benefit analysis performed by government agencies is especially important because the government is imposing regulations on the public, and the public has nowhere else to go. If a private company errs in its cost-benefit calculations, it may make an investment that turns out to be unprofitable. The company may even go out of business, with management, employees and shareholders suffering financial and job losses. But if a government agency makes mistakes in cost-benefit analysis, the entire country potentially loses, and no government employees lose their jobs.

The Environmental Protection Agency has admitted that its regulations reduce employment. EPA's Stationary Sources report for the carbon rule spells out some job losses. According to the report, "The EPA recognizes as more efficiency is

[26] Clyde Wayne Crews (2015). "Ten Thousand Commandments 2015." *Competitive Enterprise Institute.* https://cei.org/10kc2015

built into the US power system over time, lower fuel requirements may lead to fewer jobs in the coal and natural gas extraction sectors..."[27]

The EPA estimates that the rule could result in a net decrease of approximately 31,000 full-time jobs in 2030 for the final guidelines under the rate-based illustrative plan approach and approximately 34,000 full-time jobs under the mass-based approach. In addition, 52,000 to 83,000 jobs would be lost in 2030 due to lower demand from the higher electricity prices.

These job loss projections are likely to be a substantial underestimate.
The economic consulting firm NERA estimated that the EPA's carbon rule alone would cause delivered electricity prices to rise by an average of 17 percent. Over a fifteen-year period, this would increase consumer energy costs by a cumulative $479 billion.[28] Reducing ozone and mercury would increase the costs still further. Rather than continuing the trend of manufacturing returning to America, the EPA's rules would reverse it by discouraging energy-intensive manufacturing.

Environmental rules are just the tip of the regulatory iceberg. The Affordable Care Act discourages employers from hiring because firms with fewer than 50 equivalent workers are exempt from having to provide health insurance to their employees. Labor regulations raise the cost of hiring, leaving the lowest-skilled worse off. Those with higher skills are more fortunate, but still pay a penalty—they get jobs, but the cost of employing them is subtracted from their wages.

Conclusion

Matching workers to job vacancies is of the utmost importance, and there are many ways that this could be done. On the labor supply side, education could be better targeted at low-skill workers in order to prepare them for high-return jobs. Eligibility for benefits could be reduced to 2008 levels, to encourage people to re-enter the workforce. On the labor demand side, government policy could be

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[27] U.S. Environmental Protection Agency (2015). "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units."
http://www.epa.gov/airquality/cpp/cpp-final-rule.pdf
[28] David Harrison Jr. et al. (2014). "Potential Energy Impacts of the EPA Proposed Clean Power Plan." *NERA Economic Consulting.*
http://www.nera.com/content/dam/nera/publications/2014/NERA_ACCCE_CPP_Final_10.17.2014.pdf

better targeted at growth by reducing the constraints to expanding GDP. The Fed could raise its interest rates, Congress could reduce corporate tax rates, and Members of Congress could exercise more authority over burdensome regulations put in place by the Executive Branch.

Thanks for allowing me to testify. I would be glad to answer any questions.

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A Record Six Million U.S. Job Vacancies: Reasons and Remedies

Testimony before the Joint Economic Committee of the United States Congress
July 12, 2017

David T. Harrison, President
Columbus State Community College

Chairman Tiberi, Ranking Member Heinrich, Vice Chair Lee, and members of the Joint Economic Committee, thank you for the opportunity to speak to you today on the reasons and remedies for the six million job vacancies that currently exist in the United States. I am David Harrison, President of Columbus State Community College, and I firmly believe that community colleges are uniquely positioned to lead the way in closing this gap for employers and in providing people with pathways to careers offering a family-sustaining income.

Community Colleges are Purpose-built to Meet the Nation's Most Urgent Challenges

The gap between the jobs employers are trying to fill and the qualified employees available to fill them is widening, and the reasons are many. The nation's workforce is becoming more diverse, and employment practices haven't kept pace with changing demographics. We have over-emphasized the bachelor's degree as the starting point to a successful career, escalating student loan debt without a proportional positive impact on the labor force. And our educational system has been slow to respond to changes in both demographics and employer needs.

You may be surprised to learn about today's college student. Three-quarters of U.S. college students commute to class while balancing jobs and family responsibilities.[1] Almost half are financially independent, and many have financial dependents of their own.[2] These students work hard. At Columbus State, 65 percent of our students work 20 or more hours per week. Their education is an important priority, but it isn't always their most urgent priority. These are the very students who are the solution to the vacancy problem, and we need to think differently about how to better equip them for career success.

Community colleges are purpose-built to meet two of the nation's most urgent challenges: unmet workforce needs and rising student debt. Community colleges and universities play distinctly different roles, and have substantially different business models. Community colleges are committed to access. We are inclusive, not exclusive. Our open admission policies serve students of all ages and backgrounds. First-generation students, low-income students, students of color, adults in transition, and armed forces veterans thrive in our environment. They obtain employable skills and do so with little or no debt.

[1] Complete College America, *Time is the Enemy*, 2011.
[2] Lumina Foundation, *Today's Student*, 2015.

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Community colleges work closely with employers to ensure that our programs are aligned with the high-performance workplace. Emphasizing both the collective value and economic earning potential of the associate degree and technical certificates provided by community colleges is a critical part of the remedy to the employment gap problem.

I am pleased to share with you today promising practices we have developed in Central Ohio built on a strong culture of public-private partnerships.

The Columbus Region Driving Workforce Solutions through Public-Private Partnerships

Columbus State has grown into one of the largest and most comprehensive colleges in Ohio, serving students from more than 130 countries and all 88 Ohio counties. The College contributes nearly a billion dollars annually in regional economic impact, and has earned recognition as a trusted steward of taxpayer and tuition dollars. We do this while maintaining our commitment to expanding access to an affordable, high-quality education for an increasingly diverse student body. We have a partner-first focus at Columbus State, and have forged strong partnerships with employers, K-12 districts, and with universities to ensure a high-quality, affordable education for all students.

As a region we have momentum, and we are starting to gain a national reputation as a place where business leaders, public officials, and higher education leaders work together on innovative solutions. Public-private partnerships are the cornerstone to the success of our region.

Examples include:

- *The Columbus Partnership,* an organization of more than 60 CEOs from the region's leading businesses and institutions, whose primary goal is to improve the economic vitality of the Columbus Region. It has been a catalyst for public-private partnerships that enable the region to take on big issues in a focused, collaborative way leading to measurable results that make a difference in people's lives. The success of the model inspired the Harvard Business School to develop a case study designed to teach emerging leaders the power of collaboration as demonstrated in Columbus.[3]
- *Columbus 2020,* which serves as the economic development organization for the 11-county Columbus Region, works in partnership with state and local partners to add new jobs and generate capital investment, raise per capita income, and establish the region as a destination for investment. Based on this 10-year plan, the Columbus Region is on pace to have the strongest decade of economic growth in its history.
- *The Central Ohio Compact,* conceived and convened by Columbus State, is a collective impact partnership of K-12 districts, colleges and universities committed to the goal of having 65% of adults hold a postsecondary credential by 2025 through alignment among educational sectors and with the needs of the region's business and economic development priorities.

[3] Rivkin, Jan W. "The Columbus Partnership." Harvard Business School Case 715-462, May 2015.

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Columbus State Leveraging Partnerships to Advance the Region

I want to take this opportunity to thank you for the support you have provided higher education, and Columbus State specifically. At Columbus State we have leveraged federal funding to build partnerships with employers and K-12 districts to improve alignment between education and the high-performance workplace. Our portfolio includes grants from the National Science Foundation (NSF), the U.S. Department of Education, and the U.S. Department of Defense. NSF's Advanced Technological Education (ATE) program is a catalyst for community college innovation focusing on associate degree and certificate programs that align with high-growth fields. Columbus State currently has NSF ATE grants in advanced manufacturing, electric vehicle technology, cybersecurity, data analytics, mobile technology, and other fields. We are the only community college in the U.S. selected for the U.S. Department of Education's *Investing in Innovation (i3)* program, which will fund an aggressive expansion of programs designed to enhance college and career readiness in schools with a high percentage of low-income families. The program will impact more than 10,000 students in seven school districts in and around Columbus. Federal program like these provide an organizing framework for focused partnerships between K-12, higher education, and employers. Thank you for your confidence in community colleges to lead these regional efforts. Your confidence is well-placed.

At Columbus State our focus is on student success and workforce innovation, ensuring that we deliver value to students, families, and taxpayers. We have worked hard to reduce costs and ensure affordability for students, while allocating resources to improve student success and completion.

- We did not raise tuition for 6 ½ years, foregoing nearly $30,000,000 in tuition revenue.
- From 2008-12, the cost of tuition at Columbus State dropped by nearly eight percent when adjusted for inflation.
- 76 percent of our students have zero student loan debt.

We have reallocated institutional resources to focus on student success, and we're seeing results. In the past four years we have closed the performance gap for low income students by 50 percent and for students of color by 24 percent. We had our largest graduating class in Columbus State's history last year, though our enrollment is nowhere near historic highs. And the number of credentials awarded to African American students increased by more than 11 percent in the past year.

These results have garnered Columbus State national recognition. Of the 1,200 community colleges in America, we are the only one involved in three prominent national initiatives. In 2015 we were named one of only 19 *Leader Colleges* nationally through the *Achieving the Dream* network in recognition of three successive years of improving student success. We are one of only 30 colleges nationally selected as part of the *American Association of Community Colleges Guided Pathways* initiative, a Gates-funded project establishing best practices in student success and completion, to be replicated throughout the U.S. We are one of only 20 colleges selected as a

Right Signals college, a *Lumina Foundation* program ensuring that certificates and degrees are closely aligned with regional employment needs. In short, we have done our homework. We are now implementing an aggressive plan to graduate more students and help them move directly into a high-growth career or transfer to one of our great university partners to complete their bachelor's degree.

As I mentioned, community colleges are purpose-built to address the challenges of student debt and unmet workforce needs. Columbus State is addressing both of these challenges through creative partnerships.

Community Colleges are the Answer to Reducing Student Debt

Student loan debt figures are startling. Nationally, total student debt now exceeds $1.3 trillion. The average debt of bachelor's degree holders is over $37,000 and it will take these graduates an average of 21 years to pay off those loans.[4] Students who are borrowing the most money in many cases are those who can afford it the least. Community colleges are the solution to this problem. Better utilization of community colleges in bachelor's degree education would dramatically reduce the average debt load of university graduates.

Columbus State has established its own regional 2+2 policy through a program called *Preferred Pathway*. Six years ago we partnered with The Ohio State University to provide guaranteed admission to Ohio State for our graduates, and created deeper alignment of curriculum, advising, and other processes. Soon other universities including Ohio University, Miami, Capital, Columbus College of Art and Design, Franklin, Ohio Dominican, Ohio Wesleyan, and Otterbein joined the partnership, making *Preferred Pathway* one of the most productive 2+2 partnerships in America. By completing the freshman and sophomore year at Columbus State, the *Preferred Pathway* partnerships save students between 30-45 percent on their tuition expenses. That's a savings of between $12,000 and $75,000 on bachelor's degree tuition, depending on the university. The savings is even greater when you factor in expenses for room and board.

Universities are eager to partner with Columbus State because our students do very well when they transfer. When comparing students who follow a 2+2 pathway to a bachelor's degree, those students who start at a community college graduate at a higher rate (74%) than do those who start at four-year institutions (63%).[5] Earning the associate degree before transferring is an important factor in bachelor's degree completion. The four-year graduation rate for Columbus State students who transferred to Ohio State after earning their associate degree is 82 percent, compared with 66 percent for those who transferred prior to earning the associate degree.

[4] OneWisconsin Institute, Impact of Student Load Debt on Homeownership Trends and Vehicle Purchasing, June 2013.
[5] The National Student Clearinghouse® Research Center™, 2013.

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Community Colleges are the Remedy to the Skills Gap

The six million job vacancy problem is solvable with the right combination of strategies, including:

- Elevation of the associate degree and technical postsecondary credentials to prepare more citizens for high-demand occupations.
- Regional public-private partnerships between K-12, community colleges and universities, and employers.
- Targeted investments from the federal government that enable promising regional practices to be brought to scale

Associate Degree Attainment as an Important Solution to the Workforce Misalignment

As a nation, we have over-emphasized the bachelor's degree as the only successful path for recent high school graduates. The *"bachelor's degree for all"* mentality has not served most young people well, as more than half are reaching the age of 25 without a job or a career-ready credential.[6] The focus on the bachelor's degree does not reflect employer need, nor predict potential earning accurately. Demand for associate degree graduates has grown 3 times the rate as that of the bachelor's degree. Harvard University predicts that there will be an overwhelming majority of jobs that require technical skills or associate degree level preparation, while only 33 percent of jobs will require a bachelor's degree.[7]

For every occupation that requires a graduate degree, there are two jobs that require a bachelor's degree, and seven more jobs that require a two-year degree or certificate.[8] We are seeing these same projections locally. There are 270,000 high-wage, focused-skill jobs in Columbus that require an associate degree. These jobs are expected to grow by 10,000 every year.[9] These jobs pay well. In some fields, graduates with associate degrees earn $11,000 more on average their first year after graduation than bachelor's degree graduates. Nationally, over 29 million jobs paying $35,000 to $75,000 a year require an associate degree or professional certificate.[10] In Columbus, associate degree graduates can earn an average wage of $50,000 and those who wish to pursue a bachelor's degree often do so through employer-funded tuition reimbursement programs.[11]

[6] Pathways to Prosperity. Jobs for the Future and the Harvard Graduate School of Education. 2011.
[7] The National Science Foundation, 2012. PI Conference by Jane Oates, Assistant Secretary ETA, Department of Labor. Symonds, W., Schwartz, R., & Ferguson, R., February 2011. Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century.
[8] U.S. Bureau of Labor Statistics, Occupational Handbook, 2012-13.
[9] JPMorgan Chase New Skills at Work, Skills in Demand Report, 2015.
[10] Center on Education and the Workforce, Georgetown University, September 2012.
[11] JPMorgan Chase New Skills at Work, Skills in Demand Report, 2015.

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Central Ohio Public-Private Partnerships Lead the Way in the Region

In Central Ohio, we recognize the need to do things differently in order to achieve better results. Columbus State is the convener of employers, local government, and other leaders to develop a growing talent pipeline in Central Ohio. We have assembled a Workforce Advisory Council comprised of business leaders from target industries to develop a regional strategy to open opportunities for all to participate in the emerging economy. The strategy focuses on three workforce categories:

- Emerging Workforce – recent graduates and others entering employment for the first time;
- Transitional Workforce – mature workers who are in declining industries or re-joining the workforce, such as military veterans;
- Incumbent Workforce – those currently employed whose skills must grow as technologies and other factors change.

Public-private partnerships have led to a foundation of innovation that is showing promise in Central Ohio for each of these groups.

The Emerging Workforce

American Electric Power (AEP) and the AEP Foundation established the *Credits Count* program with Columbus State with a $5 million grant. This investment enables Columbus State to partner with Columbus City Schools to develop career exploration opportunities for middle school students, prepare high school students to become college-ready as quickly as possible, and enable them to earn post-secondary credentials while still in high school in STEM-related fields. The *Credits Count* program will reach 3,000 students.

JPMorgan Chase selected Columbus State and the *Central Ohio Compact* as one of nine international partners to implement their New Skills at Work initiative. This $2.5 million grant enables Columbus State to advance the model of grade 9-14 career pathways throughout Central Ohio.

We have partnered with Honda of America to develop a talent pipeline of electro-mechanical engineering graduates to address an urgent need. This co-op program enables students to start while still in high school, work at Honda as students, and transition to full-time employees upon completion of their associate degree. Students pursuing further career development, earn their bachelor's degree in engineering through the *Preferred Pathway* 2+2 partnership with Miami University, with their tuition paid by Honda.

In addition, state policy in Ohio has been adopted to advance career pathways in high schools and deeper alignment between secondary and post-secondary education. *College Credit Plus* enables high school students to begin taking college coursework as soon as they are ready.

Columbus State has leveraged the public-private partnerships described above to quickly come to scale. Last year more than 4,800 high school students enrolled at Columbus State through *College Credit Plus.* They were from 140 high schools in 60 school districts spanning 11 counties. Extensive adoption of *College Credit Plus* both shortens time-to-degree and maximizes savings to students and families. We expect this growth rate to continue as more students and families look to Columbus State for a high-quality, affordable pathway to their future.

The Transitional Workforce

We won't close the six million jobs gap by just focusing on young people. Current demographic projections do not favor the magnitude of growth required in the labor market to fuel economic expansion. Across the nation there are projected decreases in public elementary and secondary school enrollment. In Ohio it is projected that we will experience a 3.6 percent decline in enrollments and a 3.8 percent decline in high school graduates.[12] **Simply stated, every member of our community will need to be fully equipped with employable skills if we are going to close the vacancy gap.**

This must include strategies to help military veterans and others in transition, as well as initiatives to address employment barriers due to transportation, child care, health care, drug screening, homelessness, and re-entry to the workforce after incarceration. These factors not only keep us from closing the employment gap, they contribute to growing income inequality. The Columbus region is one of the fastest-growing areas in the Midwest; however, in spite of the rapidly expanding economy, we are ranked second behind Austin, Texas among the worst cities for income mobility and neighborhood disparity.[13]

Here again, public-private partnerships in Central Ohio are focusing on these issues.

Along with other colleges and universities in Ohio, we have partnered with the *Insurance Industry Resource Council* which includes 13 leading Ohio-based insurance companies to prepare the industry for the 26,000 jobs that will be open over the next five years. This partnership has resulted in an educational pathway that mirrors the professional career path in the industry, ranging from a claims certificate to a graduate program in insurance. The program has been designed to attract mature workers in transition, including military veterans. Nationwide Insurance has had a specific focus on bringing veterans into their organization, hiring more than 1,000 into entry-level and professional track occupations.

The City of Columbus partnered with Columbus State to establish a program called *FastPath* designed to quickly get un- and under-employed adults into the workforce. Programs in construction, healthcare, culinary arts, and early childhood education are helping adults in transition enter or re-enter the workforce. *FastPath* is part of a "two-generation strategy" as the partners provide assistance to parents re-entering the workforce while providing enrichment programs for their children.

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[12] National Center for Education Statistics Projections by State, 2003 through 2015.

[13] Florida, Richard; *The New Urban Crisis: How Our Cities are Increasing Inequality, Deepening Segregation, and Failing the Middle Class-and What We Can Do About It*, 2017.

The Incumbent Workforce

The six million jobs figure is actually understated when you consider the skills gap that exists within companies among their current employees. This issue is critically important in technology-dependent industries that are prevalent in Central Ohio, like financial services, healthcare, and manufacturing.

Columbus State partnerships are playing a prominent role in incumbent workforce strategies as well. Our faculty are assigned full-time at Honda's facility to train their current workforce, with the credentials gained mirroring career advancement in the Honda organization.

No field is changing as rapidly as information technology, where even recent Computer Science graduates face the need to re-skill to remain competitive. Columbus State is one of only two community colleges in the U.S. partnering with Amazon Web Services and their AWS Educate platform to bring Cloud computing principles into our curriculum in a fundamental way. This partnership will enable us to build Cloud skills into our certificate and associate degree programs, and will also provide a framework to help current programmers, data analysts, and cyber-security professionals transition to Cloud architecture. We are working closely with CIOs of early Cloud-computing adopters to address this need as rapidly as possible as thousands of IT professionals need training to fully utilize these new technologies. And most recently, Columbus State is among the six community colleges nationally chose by Apple Inc., to launch their *Swift* application development curriculum to teach students elements of app design and gain critical skills in software development and information technology.

The Federal Government's Role

The federal government can play an influential role in solving this problem. Earlier this year, Senators Portman and Kaine introduced an innovative bill called *the Jumpstart Our Businesses by Supporting Students* (JOBS) *Act*, which would expand Pell Grant eligibility to cover high-quality, short-term job training programs to help low-income individuals prepare for high-wage jobs. Creative programs like this can impact many students quickly, as the local infrastructure with community colleges and employers is already in place in most regions of the U.S.

Federal investment can be catalytic in bringing together regional stakeholders for a common purpose. In 2016 Columbus competed against 77 cities nationwide to win the *Smart City Challenge,* receiving a $40 million grant from the U.S. Department of Transportation and $10 million from Vulcan, Inc. to develop and deploy innovative, high-tech transportation systems that improve access to jobs, enhance logistics, and transform Columbus into an epicenter for intelligent transportation systems (ITS). This federal investment served as a catalyst for additional public-private partnerships in the region, with the total now exceeding $500 million in private sector and local investments in accelerating the *Smart City* objectives, called *SmartColumbus.*

The federal government could launch a similar strategy to address the skills gap in America. A *21st Century Talent Challenge* could provide seed money to regions to develop a strategy targeting high-growth industries and creative approaches to connecting the emerging, transitional, and incumbent workforce for successful careers. Federal investment in a regional, collaborative workforce development approach would bring to scale proven practices that have been launched by public-private partnerships in regions like Central Ohio, and provide a repository of best practices for other regions to adopt. Such funding would provide the venture capital needed to tackle the complexity of this workforce misalignment and the support of multiple stakeholders will be required to make noticeable impact.

Conclusion

This is a moment in time for community colleges. Community colleges are teaching colleges with an emphasis firmly on student learning, economic growth, and the development of employable skills with a foundation in employer partnerships. Better utilization of community colleges in bachelor's degree education would reduce costs for students and accelerate them into the workforce as they continue to pursue further education. Finally, and most critically, our ability to leverage existing strong public-private partnerships between community colleges and employers is essential in closing the nation's skills gap and filling the six million vacancies. Columbus State and America's community colleges stand ready to help in this important economic development challenge.

Thank you for this opportunity to speak with you on this important topic.

PREPARED STATEMENT OF SCOT MCLEMORE, MANAGER, TALENT ACQUISITION, HONDA NORTH AMERICA, INC.

Thank you Chairman Tiberi, Ranking Member Heinrich and the members of the committee for hosting this hearing on the critical issue of workforce participation and workforce development. This is a topic vital to the United States economy and to companies like Honda who have significant domestic manufacturing operations.

My name is Scot McLemore and I serve as manager of Talent Acquisition at Honda North America. In my role at Honda, I work to develop strategies to help address workforce challenges. It is my honor to be here today to share some of those initiatives with you and discuss ways that industry and government can partner to activate the full potential of the domestic manufacturing sector. Honda has more than 70 facilities in the United States, including 12 manufacturing plants that produce a wide range of products; including cars, trucks, light business jets, power equipment and power sports products. More than 73 percent of Honda's 30,000 U.S. associates work in manufacturing roles. In addition to our direct employment, Honda works with more than 600 U.S. suppliers who employ tens of thousands of workers nationwide.

I. OVERVIEW

Manufacturing jobs are high-paying jobs, with good benefits, which should be highly attractive in our current economic climate. Unfortunately, however, there is a shortage of young people entering the manufacturing workforce, and that alone threatens the foundation of American industry. According to a 2015 Deloitte study completed in conjunction with the Manufacturing Institute, nearly 3.4 million manufacturing jobs will need to be filled over the next decade; 2.7 million of those jobs will be due to retirement and another 700,000 will be due to new job creation. Of those 3.4 million jobs, two million are expected to go unfilled because of a lack of interest in manufacturing or simply because prospective employees lack the essential skills needed to be successful in a manufacturing role.

This situation presents a great opportunity for our country, but without immediate action, the number of unfilled jobs will only continue to grow. The same Deloitte study found that only 37 percent of parents would recommend a manufacturing career to their children. Despite the reality that the average manufacturing employee earns roughly $15,000 more than the average employee does across all other sectors, the industry has long been stigmatized by the outdated visions of the factory floor of yesteryear.

Even when prospective employees understand the opportunity of a career in manufacturing, too often they lack the skills to succeed in modern industry. Specifically, these individuals often do not possess the problem solving ability, technical training, computer knowledge, or math skills needed to compete in the 21st century workforce. Modern manufacturing equipment and processes involve an integration of pneumatic, hydraulic, mechanical, electronic and computer-networked components. Employees must have the ability to understand these systems and how they work together to be able to install, troubleshoot and modify to maintain daily operations within a facility.

Honda's success is reliant on our ability to hire and develop talent to build the high-quality products that bring our customers joy. While it is true Honda has a stake in more people entering manufacturing positions, we want to implement programs that create interest and opportunities for all companies and to help advance the entire U.S. manufacturing economy.

II. WHAT HONDA IS DOING TO ENCOURAGE INTEREST/ADDRESS SKILLS GAP

As we have developed our workforce education and training programs, Honda has taken an intentional approach that establishes a pathway for students from middle to post-secondary education so that they may have a successful career within the manufacturing sector, which I will outline today. Our programs reflect our desire to build enthusiasm and passion for individuals who pursue careers in manufacturing, which we believe can be achieved through innovative instruction and continued skills support.

A. Early Engagement

Honda believes that the first step in technical workforce development is to create excitement for manufacturing jobs through enthusiastic engagement with students, parents and educators. One way we are working to engage students early in their academic career is with the deployment of an educational video game for middle school aged children. Through a partnership with an Ohio-based company called EdHeads, we have developed a unique virtual experience designed for classroom

use. The game teaches logic, critical thinking and takes students right to the engine manufacturing line where they apply math and problem solving skills to find answers to real world problems. This free resource is available at *http://edheads.org/page/manufacturing1*. I encourage you to visit the site and share this resource with any of your constituents who may be interested.

However, we also recognize that creating interest comes down to providing hands-on opportunities for students to experience manufacturing in real life. To help facilitate this learning, Honda has partnered with several businesses and academic institutions to create mobile labs that feature robotics and other technologies that help middle school students develop critical thinking skills and gain an understanding of modern manufacturing. The fact that these labs are mobile allows them to travel to rural areas that may be underserved by most traditional workforce development programs. By expanding the number of students who have early access to this technology, Honda hopes to grow the base of students who become interested in manufacturing and become future manufacturing employees.

In addition, Honda has partnered with TechCorps, a nonprofit organization focused on developing technology-related skills in K–12 students, to create summer programs geared toward middle school students in Ohio. Interested students can attend full-day, week-long summer camps where they are submerged into STEM subject matters, including computer programming, web development and app development. These summer camps are designed so students emerge with knowledge, concepts and skills that are useful in today's classroom and tomorrow's workplace.

B. Skills Gap/Technical Education

As Honda recruits technical talent, we experience the challenge of identifying individuals who possess the required skills to maintain modern manufacturing equipment. Many young people have not experienced learning beyond a textbook or computer to really understand how things work. We recognize there must be a bridge formed between creating interest in manufacturing and preparing people to use analytical skills to effectively interact with today's manufacturing equipment. Through our workforce development initiatives, Honda has helped to create that bridge from middle school robotics clubs to high school "hands-on" learning using classroom equipment which operates similar to the equipment found on today's manufacturing floor to providing technical training through work study and internship programs at community colleges.

At the high school level, Honda is a strong supporter of the Marysville Early College STEM High School. This school was developed as a partnership between Honda, the Marysville School District, Columbus State Community College, the Ohio Hi Point Career Center, and the Union County Chamber of Commerce. Early college high school is a unique approach to education, based on the principle that academic rigor combined with the opportunity to save time and money are powerful motivators for students to work hard. Early college high schools blend high school and college-level courses in a supportive but rigorous program, compressing the time it takes to complete a high school diploma and the first two years of college.

In the dual enrollment program at Marysville Early College STEM High School, students have the opportunity to graduate with not only a high school degree, but also an associate degree from Columbus State. Additionally, graduates possess skills that they can use right away, including mechanical engineering, robotics and welding skills. Honda believes this type of school can be replicated, not just across Ohio but also throughout the country as a way to help reduce the skills shortage.

At the postsecondary level, Honda works with multiple institutions including Columbus State, Clark State, Edison State, Marion Technical, Rhodes State and Sinclair, to develop a STEM-focused curriculum with real-world applications. Classroom lessons are supplemented with plant visits, mentorships, scholarships and work-study programs to encourage interest but—more importantly—further develop the skills essential to a successful technical career.

One example of providing students with access to technical training is a work-study partnership with Columbus State, which is designed so students can work at Honda three days a week and go to school two days. This program gives students the chance to build technical skills while earning their degrees. The partnership also provides students with a way to graduate debt free and an opportunity to pursue a career with Honda. Upon graduation, students may be offered a full-time position with the company.

While the majority of the efforts I've highlighted thus far are based in Ohio, Honda has similar efforts in other communities where we have manufacturing operations in the United States. One of our more recent partnerships is with Guilford Technical Community College (GTCC) in North Carolina, global headquarters of Honda Aircraft Company, Inc. that produces the award-winning HondaJet.

Honda worked closely with GTCC to develop programs to train prospective Honda aircraft technicians and avionics experts. Honda continues to work with Guilford College as it expands its new avionics program. The government has also supported Guilford in the expansion of these programs, which has resulted in an emerging aerospace and advanced manufacturing industry cluster in the region.

In Indiana, Honda has partnered with Ivy Tech Community College to offer paid internship opportunities for students enrolled in the school's advanced automation and robotics technology program, an area where the skills gap is acutely felt by manufacturers. Ivy Tech students have the opportunity to work two days a week at Honda while continuing their education at Ivy Tech. These internships offer students an opportunity to apply their knowledge in the real world and for Honda to evaluate the student for potential full-time employment.

C. Continuing Education

Because the technology in modern manufacturing, particularly that within the automotive industry, is constantly changing, we make a commitment to ensure that education does not stop once associates are hired. It does not matter if associates have five years of work experience or 25. Honda remains committed to ensuring our workforce has the skills necessary to be part of our exciting future. To that end, we have established technical training centers near several of our manufacturing operations including in Ohio, Indiana and Alabama. These training centers help ensure that Honda associates stay current with the robotics and technology in their work process and, most importantly, can continue to develop professionally by building on the skills and knowledge they have gained throughout their careers. Honda is constantly looking for the most effective method to provide associates with the skills required to produce the high-quality products we build. One example is the use of Virtual Reality technology or "VR." This technology allows associates to interact with virtual components and equipment simulating real equipment in a training environment reducing material and equipment costs. This type of technology may be used in a secondary or post-secondary classroom setting in the future to help prepare students for technical manufacturing careers.

The success of these technical training centers is a credit to our partnerships with academic institutions like Columbus State. By having educational professionals work with our technicians, Honda is able to employ best practices and educational techniques that are critical to the success of these programs. We are also able to ensure the alignment of Columbus State's curriculum with the skills required within Honda's production facilities.

D. Recommendations

We strongly believe that Honda's future and the future of manufacturing in the United States rests in the hands of programs like the ones I have outlined today. These programs have been developed so that they can easily be adopted in other regions of the United States based on the activities and philanthropic approach of the various Honda operations and/or by other companies.

The key theme throughout this presentation is "partnership." Closing the manufacturing skills gap will be impossible without proactive collaboration between academia, government and private industry. While many partnerships already exist, there must be a significant increase and expansion of these collaborative attempts to develop a 21st Century workforce.

Additionally, continued support and improved access for STEM education is critical to ensuring that our future workforce have the skills to compete in modern manufacturing.

One thing Congress can do immediately is to reauthorize the Carl D. Perkins Career and Technical Education Act, which recently passed the House of Representatives. The current version of the bill will help encourage more collaboration between stakeholders to ensure students have a pathway to a relevant and meaningful technical career.

Like many employers, Honda stands ready to work with Congress to help solve the critical workforce issues that stifle the full economic potential of our country.

I want to thank the members of this committee for your interest in this issue and for inviting me today to highlight some of Honda's efforts. We greatly appreciate being included in this very important conversation.

PREPARED STATEMENT OF BETSEY STEVENSON, ASSOCIATE PROFESSOR OF ECONOMICS AND PUBLIC POLICY, THE GERALD R. FORD SCHOOL OF PUBLIC POLICY, UNIVERSITY OF MICHIGAN

Chairman Tiberi, Ranking Member Heinrich, thank you for the invitation to testify today about the state of the job market and the record number of vacancies that our businesses posted at the end of April. I want to start by placing job openings in the context of a strengthening labor market. Today's high level of vacancies is largely a reflection of strong job growth. Then I will turn to challenges in the labor market in filling positions.

A STRONG LABOR MARKET

As of June 2017, the unemployment rate stood at 4.4 percent. The sharp drop in the unemployment rate coming out of the Great Recession consistently surpassed consensus forecasts, thanks to the stimulus package (ARRA) and fiscal and monetary policies that strengthened the economy and boosted aggregate demand.

Businesses are continuing to hire in large numbers. Just this past June total hiring once again surpassed expectations. Over the past six years, we're seen the longest, most persistent streak of job growth on record. Since March 2010, businesses have added nearly 16.5 million jobs. Today there are 7.8 million more jobs than the pre-recession peak. All of this growth has led to more openings, and as the committee has noted, the number of job vacancies on the last business day in April was the highest since the series began in 2000. To put this in context, during the depths of the recession new job postings dropped to a low of 2.2 million a month.

The number of vacancies are recorded on the last business day of the month. This point in time snapshot of available jobs can be compared to the subsequent hiring that happens over the next several weeks. Over the past six months, there have been 5.6 million vacancies on average on the last business day of each month. Over the subsequent month, 5.3 million workers were hired, illustrating the close link between vacancies and hiring.

One of the clearest signs of the strengthening labor market has been the increase in workers quitting jobs. During the depths of the recession, only 1.6 million workers quit a job in September of 2009. In contrast, over the past year, more than 3 million workers a month have quit a job. Workers' willingness to quit suggests that they are receiving better offers or have confidence that they'll be able to find other work.

The typical hiring of roughly 5 million workers a month is the result of a dynamic labor market in which entrepreneurs hire people for their new businesses, and old businesses fill positions as people leave and create new jobs as they expand. Roughly 5 million workers also leave jobs each month as they seek better opportunities, or as businesses eliminate jobs they no longer need, or to close their doors completely when the market no longer wants their products. For workers, job changes are essential for them to climb the ladder to better and higher-paying opportunities. Research shows that changing jobs is a primary way in which workers achieve real wage gains, on the order of 2–6 percent increase in real wages from job changes in recent years.[1]

I want to highlight that one of the challenges facing the U.S. labor market in recent decades has been a decline in dynamism. Dynamism is what allows the reallocation of workers and capital to their most productive use. When workers can find better opportunities easily, both businesses and workers benefit.

SECTORAL SHIFTS LEAVE SOME WORKERS WITHOUT NECESSARY SKILLS AND REQUIRE NEW TRAINING PROGRAMS

While job change is a natural and essential part of our economy, sectoral shifts present challenges for workers and for policy makers seeking to smooth the costs associated with these transitions. Workers in shrinking sectors face a decreasing number of opportunities for wage gains, and an increasing likelihood of being left without a job if they lose the one they have. Goods-producing jobs, most notably manufacturing, are losing jobs, while healthcare, education, and information technology are adding jobs. While more jobs are being added across sectors than are lost, the within-sector losses present hardships and uncertainty for workers in declining sectors. It's important to keep in mind that this happens within the context of sub-

[1] For example, Molloy, Raven, Christopher L. Smith, and Abigail K. Wozniak. Declining migration within the US: The role of the labor market. No. w20065. National Bureau of Economic Research, 2014 and Fallick, Bruce, John Haltiwanger, and Erika McEntarfer. "Job-to-job flows and the consequences of job separations," 2012.

stantial churn within the sector. For example, over the past two decades more than sixty million people were hired into manufacturing jobs, yet more than sixty-five million people quit or lost manufacturing jobs. It's like a game of musical chairs in which the number of chairs shrunk by five million. Those who lose their seat face tremendous hardship and a difficult, and sometimes impossible, transition as they struggle to find one of the remaining positions or give up and attempt to apply their skills and experience elsewhere.

Sectoral changes are not a new force in the U.S. economy, but the changes that are occurring are hurting some groups more than others. Many declining sectors are in traditionally male occupations, while traditionally female or more gender-mixed occupations are growing. These changes will require that we not only provide training for workers to successfully transition, but that we confront and eliminate stereotypes about jobs and the people who hold them. That may require rethinking how we train workers for these jobs since research shows that education and training methods, materials, instructors, and even environment can shape gender and racial inclusivity.

Growing sectors represent opportunities for workers, but they also present challenges in that hiring needs may outpace the skills of current workers. Since the end of 2000, more than 104 million people have been hired in education and health services and nearly 97 million people have left such jobs, for a net gain of 7.5 million jobs. At the end of March, there were 4.6 million vacancies in education and health services, but only 2.6 million workers were hired the following month. A similar pattern has held over the past few years, with openings exceeding hiring suggesting that perhaps this is an industry that is struggling to find qualified workers. However, there is little evidence of accelerated wage growth in the health care sector, suggesting that demand for workers isn't outpacing supply enough to lead to higher wages.

LARGE WAGE PREMIUMS FOR COLLEGE-EDUCATED WORKERS HIGHLIGHT THE DEMAND FOR COLLEGE-LEVEL SKILLS

Wages provide a clear market-based signal of demand for skills and one of the clearest signs of demand for skills is the strong growth in wages of college-educated workers compared to those with less education. The gap between the earnings of college-educated adults and those with a high school degree are large and have grown over the past thirty-five years. Over the last decade, the wage advantage of college-educated workers has never been greater, contributing to an increasing gap between those with substantial higher education and those without.

The benefits of a four-year degree are also seen in the substantially lower unemployment rate for college graduates—2.4 percent in June 2017—compared to 4.6 percent for high school graduates and 3.8 percent for those with only some college. Labor force participation rates also differ by education—73.9 percent of college graduates over age 25 were in the labor force in June 2017, compared to 57.5 percent of those with only high school. Labor force participation rates are difficult to interpret today because the aging of the population is placing downward pressure on the fraction of people in the labor force as Baby Boomers begin to retire—a pressure that the U.S. economy will face for some time. However, similar patterns are seen when examining prime age—those 25 to 54 years old—workers. Among prime age men who are college graduates roughly 9 in 10 are employed, compared to roughly 8 in 10 with a high school degree.

These differences are important to highlight because one of the largest challenges the labor force faces in developing the skills of workers is ensuring that students from across the income spectrum have access to successfully and affordably complete a four-year degree. While many people argue that college for all may not be necessary, or even possible, it is important to recognize that a century ago the same arguments were made about public high school. Our country's willingness to ignore these naysayers and make high school free and widely available was an engine of economic growth in the last century. While the United States led the world in educating our citizens last century, we have failed to keep up as other countries' student successes have surpassed ours.

GREATER WAGE GAINS ARE NECESSARY

One of the missing pieces of evidence when it comes to assessing a mismatch between the skills that employers demand and the skills that workers have is wages. Many researchers have diligently sought evidence of worker shortages that would naturally, in a competitive market, lead the businesses who would benefit most from hiring such workers to bid up their wages. While job growth exceeded expectations this past June, wage growth once again undershot expectations. Wage growth was

slow coming out of the recession, yet accelerated in 2015 and 2016. From 2014 to 2015, real median household income grew $2,800—the fastest growth on record. Wages for all private sector workers grew an average of 2.9 percent in 2016. Yet, growth in both wages and overall compensation per hour has slowed in recent quarters.

Many economists have pointed to slow growth in labor productivity as a source of slower wage growth. Higher productivity should, in theory, lead to higher wages and is an important reason for workers to acquire the skills that employers are seeking. The connection between wages and productivity is important and provides an incentive for workers to become more productive. However, in recent decades the link between productivity and wages has weakened and the wages of most workers have not risen as rapidly as productivity. There are several potential explanations for this decoupling of wages and productivity—including declining unionization, reduced worker bargaining power, and reduced worker mobility. Businesses are also increasingly engaging in anti-competitive labor market policies including forbidding the sharing of pay information and requiring noncompete clauses. Congress should seek to make the labor market as fair as possible by penalizing business that engage in such anticompetitive practices. Additionally, policies like updated overtime regulations, a robust minimum wage, enforcing workplace protections are all key areas that could help raise wages and improve working conditions.

The current pace of job growth is unsustainable unless more workers elect to join the labor force. The challenge that businesses will increasingly face as they continue to hire is not that the workers who are available do not have the skills they are seeking, but that there will simply be too few workers available for them to find workers. Higher wages and better working conditions are therefore essential to ensure that more workers are encouraged to participate.

JOB TRAINING AND APPRENTICESHIPS PLAY AN IMPORTANT ROLE IN BUILDING WORKER'S SKILLS

There is a large role for training programs, apprenticeships, and community colleges to play in preparing workers to transition to the jobs that employers are hiring in. One policy that can help both employers and employees and strengthen the overall economy is evidence-based job training programs. In his FY2017 budget President Obama outlined a comprehensive strategy to invest in highly demanded skills and education to make our economy more competitive in the 21st century. While preparing workers for jobs begins with education when children are young, it continues in adulthood by helping workers get the skills to make the American economy more competitive. One of the most important skills all workers need in the 21st century is the ability to learn on the job and adapt to new technologies and new ways of doing things. That's why successful programs not only teach concrete skills, but help participants develop lifelong learning abilities. This is also why ultimately the success of our adult training programs has its roots in our preschool programs.

Successful training programs require evidence and adaptation to that evidence. WIOA, which covers job training programs for 20 million people a year, includes reporting and measurement aspects that will build the evidence base about what works in job training, and what we can do better. Crucially, WIOA passed with bipartisan support, and additional investments could help states and localities set up the infrastructure necessary to track what happens to workers after training programs.

THE NEED FOR NEW AND INNOVATIVE APPRENTICESHIPS

Apprenticeships are an important part of worker training and some people are best suited to learn through hands-on doing. Additionally, apprenticeships help workers learn the skills associated with learning-on-the-job, an important skill in its own right in an ever evolving economy. Yet, apprenticeships have traditionally focused on a narrow slice of the labor market and need to be adapted and expanded to provide training for the jobs of the future. Research shows that apprenticeships tend to lead to higher-paying jobs—the average apprentice earns a starting wage of $60,000, more than the median worker's income, and 89 percent of people who complete registered apprenticeship programs are employed once their training ends. Based on this evidence, the Obama Administration allocated $265 million toward apprenticeship funding, and between 2014 and 2016, active apprenticeships increased 31 percent. Continuing and building this investment is crucial to prepare our economy for the 21st century.

Government investment in job training and worker investment programs is one solution, but it's not the only answer. Businesses can do more to invest in workers. Many leading businesses have realized that the investments they make in their workers today have long-term benefits. From Henry Ford a century ago, leading businesses have realized they can attract and retain top talent by paying higher wages. Henry Ford called raising wages his best cost-cutting business decision. The reason was that his workers knew that it would be hard to find as good a job as they had with Ford if they were to lose their job. In today's labor market, business policies that may seem like they are cost-cutting in the short-run are hurting businesses as well as workers. When workers are easily replaced and jobs pay the bare minimum needed to hire workers, businesses can easily lose the loyalty and conscientiousness that lead to fewer mistakes and higher productivity. In fact, there is an important link between business management skills and worker skills. Research shows that the businesses with better management have workers with higher average skills and have less attrition—importantly, they also pay their workers higher wages compared to the market as a whole.

Let me end by noting that much of the strong labor market we're seeing today is due to actions Congress, the Administration, and the Federal Reserve took that prevented the recession from becoming a depression—stimulating the economy through investments and tax cuts, stabilizing the financial sector, assisting the auto industry, supporting the housing market, and reducing long-term interest rates. Estimates from the Council of Economic Advisers show ARRA and other fiscal measures saved or created about 9 million job-years through 2012 and increased GDP by 9.5 percent, relative to its 2008 level. All of this shows that policy can, and does, make a difference.

Thank you.

Our Miserable 21st Century

From work to income to health to social mobility, the year 2000 marked the beginning of what has become a distressing era for the United States

By Nicholas N. Eberstadt

On the morning of November 9, 2016, America's elite—its talking and deciding classes—woke up to a country they did not know. To most privileged and well-educated Americans, especially those living in its bicoastal bastions, the election of Donald Trump had been a thing almost impossible even to imagine. What sort of country would go and elect someone like Trump as president? Certainly not one they were familiar with, or understood anything about.

Whatever else it may or may not have accomplished, the 2016 election was a sort of shock therapy for Americans living within what Charles Murray famously termed "the bubble" (the protective barrier of prosperity and self-selected associations that increasingly shield our best and brightest from contact with the rest of their society). The very fact of Trump's election served as a truth broadcast about a reality that could no longer be denied: *Things out there in America are a whole lot different from what you thought.*

Yes, things are very different indeed these days in the "real America" outside the bubble. In fact, things have been going badly wrong in America since the beginning of the 21st century.

It turns out that the year 2000 marks a grim historical milestone of sorts for our nation. For whatever reasons, the Great American Escalator, which had lifted successive generations of Americans to ever higher standards of living and levels of social well-being, broke down around then—and broke down very badly.

The warning lights have been flashing, and the klaxons sounding, for more than a decade and a half. But our pundits and prognosticators and professors and policymakers, ensconced as they generally are deep within the bubble, were for the most part too distant from the distress of the general population to see or hear it. (So much for the vaunted "information era" and "big-data revolution.") Now that those signals are no longer possible to ignore, it is high time for experts and intellectuals to reacquaint themselves with the country in which they live and to begin the task of describing what has befallen the country in which we have lived since the dawn of the new century.

II

Consider the condition of the American economy. In some circles people still widely believe, as one recent *New York Times* business-section article cluelessly insisted before the inauguration, that "Mr. Trump will inherit an economy that is fundamentally solid." But this is patent nonsense. By now it should be painfully obvious that the U.S. economy has been in the grip of deep dysfunction since the dawn of the new century. And in retrospect, it should also be apparent that America's strange new economic maladies were almost perfectly designed to set the stage for a populist storm.

Ever since 2000, basic indicators have offered oddly inconsistent readings on America's economic performance and prospects. It is curious and highly uncharacteristic to find such measures so very far out of alignment with one another. We are witnessing an ominous and growing divergence between three trends that should ordinarily move in tandem: wealth, output, and employment. Depending upon which of these three indicators you choose, America looks to be heading up, down, or more or less nowhere.

From the standpoint of wealth creation, the 21st century is off to a roaring start. By this yardstick, it looks as if Americans have never had it so good and as if the future is full of promise. Between early 2000 and late 2016,

the estimated net worth of American households and nonprofit institutions more than doubled, from $44 trillion to $90 trillion. (SEE FIGURE 1.)

Although that wealth is not evenly distributed, it is still a fantastic sum of money—an average of over a million dollars for every notional family of four. This upsurge of wealth took place despite the crash of 2008—indeed, private wealth holdings are over $20 trillion higher now than they were at their pre-crash apogee. The value of American real-estate assets is near or at all-time highs, and America's businesses appear to be thriving. Even before the "Trump rally" of late 2016 and early 2017, U.S. equities markets were hitting new highs—and since stock prices are strongly shaped by expectations of future profits, investors evidently are counting on the continuation of the current happy days for U.S. asset holders for some time to come.

A rather less cheering picture, though, emerges if we look instead at real trends for the macro-economy. Here, performance since the start of the century might charitably be described as mediocre, and prospects today are no better than guarded.

The recovery from the crash of 2008—which unleashed the worst recession since the Great Depression—has been singularly slow and weak. According to the Bureau of Economic Analysis (BEA), it took nearly four years for America's gross domestic product (GDP) to re-attain its late 2007 level. As of late 2016, total value added to the U.S. economy was just 12 percent higher than in 2007. (SEE FIGURE 2.) The situation is even more sobering if we consider per capita growth. It took America six and a half years—until mid-2014—to get back to its late 2007 per capita production levels. And in late 2016, per capita output was just 4 percent higher than in late 2007—nine years earlier. By this reckoning, the American economy looks to have suffered something close to a lost decade.

But there was clearly trouble brewing in America's macro-economy well before the 2008 crash, too. Between late 2000 and late 2007, per capita GDP growth averaged less than 1.5 percent per annum. That compares with the nation's long-term postwar 1948–2000 per capita growth rate of almost 2.3 percent, which in turn can be compared to the "snap back" tempo of 1.1 percent per annum since per capita GDP bottomed out in 2009. Between 2000 and 2016, per capita growth in America has averaged less than 1 percent a year. To state it plainly: *With postwar, pre-21st-century rates for the years 2000–2016, per capita GDP in America would be more than 20 percent higher than it is today.*

The reasons for America's newly fitful and halting macroeconomic performance are still a puzzlement to economists and a subject of considerable contention and debate.[1]Economists are generally in consensus, however, in one area: They have begun redefining the growth potential of the U.S. economy downwards. The U.S. Congressional Budget Office (CBO), for example, suggests that the "potential growth" rate for the U.S. economy at full employment of factors of production has now dropped below 1.7 percent a year, implying a sustainable long-term annual per capita economic growth rate for America today of well under 1 percent.

Then there is the employment situation. If 21st-century America's GDP trends have been disappointing, labor-force trends have been utterly dismal. Work rates have fallen off a cliff since the year 2000 and are at their lowest levels in decades. We can see this by looking at the estimates by the Bureau of Labor Statistics (BLS) for the civilian employment rate, the jobs-to-population ratio for adult civilian men and women. (SEE FIGURE 3.) Between early 2000 and late 2016, America's overall work rate for Americans age 20 and older underwent a drastic decline. It plunged by almost 5 percentage points (from 64.6 to 59.7). Unless you are a labor economist, you may not appreciate just how severe a falloff in employment such numbers attest to. Postwar America never experienced anything comparable.

From peak to trough, the collapse in work rates for U.S. adults between 2008 and 2010 was roughly twice the amplitude of what had previously been the country's worst postwar recession, back in the early 1980s. In that previous steep recession, it took America five years to re-attain the adult work rates recorded at the start of 1980. This time, the U.S. job market has as yet, in early 2017, scarcely begun to claw its way back up to the work rates of 2007—much less back to the work rates from early 2000.

As may be seen in Figure 3, U.S. adult work rates never recovered entirely from the recession of 2001—much less the crash of '08. And the work rates being measured here include people who are engaged in *any* paid employment—any job, at any wage, for any number of hours of work at all.

On Wall Street and in some parts of Washington these days, one hears that America has gotten back to "near full employment." For Americans outside the bubble, such talk must seem nonsensical. It is true that the oft-cited "civilian unemployment rate" looked pretty good by the end of the Obama era—in December 2016, it was down to 4.7 percent, about the same as it had been back in 1965, at a time of genuine full employment. The problem here is that the unemployment rate only tracks joblessness for those still in the labor force; it takes no account of workforce dropouts. Alas, the exodus out of the workforce has been the big labor-market story for America's new century. (At this writing, for every unemployed American man between 25 and 55 years of age, there are another three who are neither working nor looking for work.) Thus the "unemployment rate" increasingly looks like an antique index devised for some earlier and increasingly distant war: the economic equivalent of a musket inventory or a cavalry count.

By the criterion of adult work rates, by contrast, employment conditions in America remain remarkably bleak. From late 2009 through early 2014, the country's work rates more or less flatlined. So far as can be told, this is the only "recovery" in U.S. economic history in which that basic labor-market indicator almost completely failed to respond.

Since 2014, there has finally been a measure of improvement in the work rate—but it would be unwise to exaggerate the dimensions of that turnaround. As of late 2016, the adult work rate in America was still at its lowest level in more than 30 years. To put things another way: *If our nation's work rate today were back up to its start-of-the-century highs, well over 10 million more Americans would currently have paying jobs.*

There is no way to sugarcoat these awful numbers. They are not a statistical artifact that can be explained away by population aging, or by increased educational enrollment for adult students, or by any other genuine change in contemporary American society. The plain fact is that 21st-century America has witnessed a dreadful collapse of work.

For an apples-to-apples look at America's 21st-century jobs problem, we can focus on the 25–54 population—known to labor economists for self-evident reasons as the "prime working age" group. For this key labor-force cohort, work rates in late 2016 were down almost 4 percentage points from their year-2000 highs. That is a jobs gap approaching 5 million for this group alone.

It is not only that work rates for prime-age males have fallen since the year 2000—they have, but the collapse of work for American men is a tale that goes back at least half a century. (I wrote a short book last year about this sad saga.[2]) What is perhaps more startling is the unexpected and largely unnoticed fall-off in work rates for prime-age women. In the U.S. and all other Western societies, postwar labor markets underwent an epochal transformation. After World War II, work rates for prime women surged, and continued to rise—until the year 2000. Since then, they too have declined. Current work rates for prime-age women are back to where they were a generation ago, in the late 1980s. The 21st-century U.S. economy has been brutal for male and female laborers alike—and the wreckage in the labor market has been sufficiently powerful to cancel, and even reverse, one of our society's most distinctive postwar trends: the rise of paid work for women outside the household.

In our era of no more than indifferent economic growth, 21st–century America has somehow managed to produce markedly more wealth for its wealthholders even as it provided markedly less work for its workers. And trends for paid hours of work look even worse than the work rates themselves. Between 2000 and 2015, according to the BEA, total paid hours of work in America increased by just 4 percent (as against a 35 percent increase for 1985–2000, the 15-year period immediately preceding this one). Over the 2000–2015 period, however, the adult civilian population rose by almost 18 percent—meaning that paid hours of work per adult civilian have plummeted by a shocking 12 percent thus far in our new American century.

This is the terrible contradiction of economic life in what we might call America's Second Gilded Age (2000—). It is a paradox that may help us understand a number of overarching features of our new century. These include

the consistent findings that public trust in almost all U.S. institutions has sharply declined since 2000, even as growing majorities hold that America is "heading in the wrong direction." It provides an immediate answer to why overwhelming majorities of respondents in public-opinion surveys continue to tell pollsters, year after year, that our ever-richer America is still stuck in the middle of a recession. The mounting economic woes of the "little people" may not have been generally recognized by those inside the bubble, or even by many bubble inhabitants who claimed to be economic specialists—but they proved to be potent fuel for the populist fire that raged through American politics in 2016.

III

So general economic conditions for many ordinary Americans—not least of these, Americans who did not fit within the academy's designated victim classes—have been rather more insecure than those within the comfort of the bubble understood. But the anxiety, dissatisfaction, anger, and despair that range within our borders today are not wholly a reaction to the way our economy is misfiring. On the nonmaterial front, it is likewise clear that many things in our society are going wrong and yet seem beyond our powers to correct.

Some of these gnawing problems are by no means new: A number of them (such as family breakdown) can be traced back at least to the 1960s, while others are arguably as old as modernity itself (anomie and isolation in big anonymous communities, secularization and the decline of faith). But a number have roared down upon us by surprise since the turn of the century—and others have redoubled with fearsome new intensity since roughly the year 2000.

American health conditions seem to have taken a seriously wrong turn in the new century. It is not just that overall health progress has been shockingly slow, despite the trillions we devote to medical services each year. (Which "Cold War babies" among us would have predicted we'd live to see the day when life expectancy in East Germany was higher than in the United States, as is the case today?)

Alas, the problem is not just slowdowns in health progress—there also appears to have been positive retrogression for broad and heretofore seemingly untroubled segments of the national population. A short but electrifying 2015 paper by Anne Case and Nobel Economics Laureate Angus Deaton talked about a mortality trend that had gone almost unnoticed until then: rising death rates for middle-aged U.S. whites. By Case and Deaton's reckoning, death rates rose somewhat slightly over the 1999–2013 period for all non-Hispanic white men and women 45–54 years of age—but they rose sharply for those with high-school degrees or less, and for this less-educated grouping most of the rise in death rates was accounted for by suicides, chronic liver cirrhosis, and poisonings (including drug overdoses).

Though some researchers, for highly technical reasons, suggested that the mortality spike might not have been quite as sharp as Case and Deaton reckoned, there is little doubt that the spike itself has taken place. Health has been deteriorating for a significant swath of white America in our new century, thanks in large part to drug and alcohol abuse. All this sounds a little too close for comfort to the story of modern Russia, with its devastating vodka- and drug-binging health setbacks. Yes: It *can* happen here, and it has. Welcome to our new America.

In December 2016, the Centers for Disease Control and Prevention (CDC) reported that for the first time in decades, life expectancy at birth in the United States had dropped very slightly (to 78.8 years in 2015, from 78.9 years in 2014). Though the decline was small, it was statistically meaningful—rising death rates were characteristic of males and females alike; of blacks and whites and Latinos together. (Only black women avoided mortality increases—their death levels were stagnant.) A jump in "unintentional injuries" accounted for much of the overall uptick.

It would be unwarranted to place too much portent in a single year's mortality changes; slight annual drops in U.S. life expectancy have occasionally been registered in the past, too, followed by continued improvements. But given other developments we are witnessing in our new America, we must wonder whether the 2015 decline in life expectancy is just a blip, or the start of a new trend. We will find out soon enough. It cannot be encouraging, though, that the Human Mortality Database, an international consortium of demographers who vet

national data to improve comparability between countries, has suggested that health progress in America essentially ceased in 2012—that the U.S. gained on average only about a single day of life expectancy at birth between 2012 and 2014, before the 2015 turndown.

The opioid epidemic of pain pills and heroin that has been ravaging and shortening lives from coast to coast is a new plague for our new century. The terrifying novelty of this particular drug epidemic, of course, is that it has gone (so to speak) "mainstream" this time, effecting breakout from disadvantaged minority communities to Main Street White America. By 2013, according to a 2015 report by the Drug Enforcement Administration, more Americans died from drug overdoses (largely but not wholly opioid abuse) than from either traffic fatalities or guns. The dimensions of the opioid epidemic in the real America are still not fully appreciated within the bubble, where drug use tends to be more carefully limited and recreational. In *Dreamland*, his harrowing and magisterial account of modern America's opioid explosion, the journalist Sam Quinones notes in passing that "in one three-month period" just a few years ago, according to the Ohio Department of Health, "fully 11 percent of all Ohioans were prescribed opiates." And of course many Americans self-medicate with licit or illicit painkillers without doctors' orders.

In the fall of 2016, Alan Krueger, former chairman of the President's Council of Economic Advisers, released a study that further refined the picture of the real existing opioid epidemic in America: According to his work, nearly half of all prime working-age male labor-force dropouts—an army now totaling roughly 7 million men—currently take pain medication on a daily basis.

We already knew from other sources (such as BLS "time use" surveys) that the overwhelming majority of the prime-age men in this un-working army generally don't "do civil society" (charitable work, religious activities, volunteering), or for that matter much in the way of child care or help for others in the home either, despite the abundance of time on their hands. Their routine, instead, typically centers on watching—watching TV, DVDs, Internet, hand-held devices, etc.—and indeed watching for an average of 2,000 hours a year, as if it were a full-time job. But Krueger's study adds a poignant and immensely sad detail to this portrait of daily life in 21st-century America: In our mind's eye we can now picture many millions of un-working men in the prime of life, out of work and not looking for jobs, sitting in front of screens—stoned.

But how did so many millions of un-working men, whose incomes are limited, manage en masse to afford a constant supply of pain medication? Oxycontin is not cheap. As *Dreamland* carefully explains, one main mechanism today has been the welfare state: more specifically, Medicaid, Uncle Sam's means-tested health-benefits program. Here is how it works (we are with Quinones in Portsmouth, Ohio):

> [The Medicaid card] pays for medicine—whatever pills a doctor deems that the insured patient needs. Among those who receive Medicaid cards are people on state welfare or on a federal disability program known as SSI. . . . If you could get a prescription from a willing doctor—and Portsmouth had plenty of them—Medicaid health-insurance cards paid for that prescription every month. For a three-dollar Medicaid co-pay, therefore, addicts got pills priced at thousands of dollars, with the difference paid for by U.S. and state taxpayers. A user could turn around and sell those pills, obtained for that three-dollar co-pay, for as much as ten thousand dollars on the street.

In 21st-century America, "dependence on government" has thus come to take on an entirely new meaning.

You may now wish to ask: What share of prime-working-age men these days are enrolled in Medicaid? According to the Census Bureau's SIPP survey (Survey of Income and Program Participation), as of 2013, over one-fifth (21 percent) of *all* civilian men between 25 and 55 years of age were Medicaid beneficiaries. For prime-age people not in the labor force, the share was over half (53 percent). And for un-working Anglos (non-Hispanic white men not in the labor force) of prime working age, the share enrolled in Medicaid was 48 percent.

By the way: Of the entire un-working prime-age male Anglo population in 2013, nearly three-fifths (57 percent) were reportedly collecting disability benefits from one or more government disability program in 2013. Disability checks and means-tested benefits cannot support a lavish lifestyle. But they can offer a permanent alternative to paid employment, and for growing numbers of American men, they do. The rise of these programs

has coincided with the death of work for larger and larger numbers of American men not yet of retirement age. We cannot say that these programs *caused* the death of work for millions upon millions of younger men: What is incontrovertible, however, is that they have *financed* it—just as Medicaid inadvertently helped finance America's immense and increasing appetite for opioids in our new century.

It is intriguing to note that America's nationwide opioid epidemic has *not* been accompanied by a nationwide crime wave (excepting of course the apparent explosion of illicit heroin use). Just the opposite: As best can be told, national victimization rates for violent crimes and property crimes have both reportedly dropped by about two-thirds over the past two decades.[3] The drop in crime over the past generation has done great things for the general quality of life in much of America. There is one complication from this drama, however, that inhabitants of the bubble may not be aware of, even though it is all too well known to a great many residents of the real America. This is the extraordinary expansion of what some have termed America's "criminal class"—the population sentenced to prison or convicted of felony offenses—in recent decades. This trend did not begin in our century, but it has taken on breathtaking enormity since the year 2000.

Most well-informed readers know that the U.S. currently has a higher share of its populace in jail or prison than almost any other country on earth, that Barack Obama and others talk of our criminal-justice process as "mass incarceration," and know that well over 2 million men were in prison or jail in recent years.[4] But only a tiny fraction of all living Americans ever convicted of a felony is actually incarcerated at this very moment. Quite the contrary: Maybe 90 percent of all sentenced felons today are out of confinement and living more or less among us. The reason: the basic arithmetic of sentencing and incarceration in America today. Correctional release and sentenced community supervision (probation and parole) guarantee a steady annual "flow" of convicted felons back into society to augment the very considerable "stock" of felons and ex-felons already there. And this "stock" is by now truly enormous.

One forthcoming demographic study by Sarah Shannon and five other researchers estimates that the cohort of current and former felons in America very nearly reached 20 million by the year 2010. If its estimates are roughly accurate, and if America's felon population has continued to grow at more or less the same tempo traced out for the years leading up to 2010, we would expect it to surpass 23 million persons by the end of 2016 at the latest. Very rough calculations might therefore suggest that at this writing, America's population of non-institutionalized adults with a felony conviction somewhere in their past has almost certainly broken the 20 million mark by the end of 2016. A little more rough arithmetic suggests that about 17 million men in our general population have a felony conviction somewhere in their CV. That works out to one of every eight adult males in America today.

We have to use rough estimates here, rather than precise official numbers, because the government does not collect any data at all on the size or socioeconomic circumstances of this population of 20 million, and never has. Amazing as this may sound and scandalous though it may be, America has, at least to date, effectively banished this huge group—a group roughly twice the total size of our illegal-immigrant population and an adult population larger than that in any state but California—to a near-total and seemingly unending statistical invisibility. Our ex-cons are, so to speak, statistical outcasts who live in a darkness our polity does not care enough to illuminate—beyond the scope or interest of public policy, unless and until they next run afoul of the law.

Thus we cannot describe with any precision or certainty what has become of those who make up our "criminal class" after their (latest) sentencing or release. In the most stylized terms, however, we might guess that their odds in the real America are not all that favorable. And when we consider some of the other trends we have already mentioned—employment, health, addiction, welfare dependence—we can see the emergence of a malign new nationwide undertow, pulling downward against social mobility.

Social mobility has always been the jewel in the crown of the American mythos and ethos. The idea (not without a measure of truth to back it up) was that people in America are free to achieve according to their merit and their grit—unlike in other places, where they are trapped by barriers of class or the misfortune of misrule. Nearly two

decades into our new century, there are unmistakable signs that America's fabled social mobility is in trouble—perhaps even in serious trouble.

Consider the following facts. First, according to the Census Bureau, geographical mobility in America has been on the decline for three decades, and in 2016 the annual movement of households from one location to the next was reportedly at an all-time (postwar) low. Second, as a study by three Federal Reserve economists and a Notre Dame colleague demonstrated last year, "labor market fluidity"—the churning between jobs that among other things allows people to get ahead—has been on the decline in the American labor market for decades, with no sign as yet of a turnaround. Finally, and not least important, a December 2016 report by the "Equal Opportunity Project," a team led by the formidable Stanford economist Raj Chetty, calculated that the odds of a 30-year-old's earning more than his parents at the same age was now just 51 percent: down from 86 percent 40 years ago. Other researchers who have examined the same data argue that the odds may not be quite as low as the Chetty team concludes, but agree that the chances of surpassing one's parents' real income have been on the downswing and are probably lower now than ever before in postwar America.

Thus the bittersweet reality of life for real Americans in the early 21st century: Even though the American economy still remains the world's unrivaled engine of wealth generation, those outside the bubble may have less of a shot at the American Dream than has been the case for decades, maybe generations—possibly even since the Great Depression.

IV

The funny thing is, people inside the bubble are forever talking about "economic inequality," that wonderful seminar construct, and forever virtue-signaling about how personally opposed they are to it. By contrast, "economic insecurity" is akin to a phrase from an unknown language. But if we were somehow to find a "Google Translate" function for communicating from real America into the bubble, an important message might be conveyed:

The abstraction of "inequality" doesn't matter a lot to ordinary Americans. The reality of economic insecurity does. The Great American Escalator is broken—and it badly needs to be fixed.

With the election of 2016, Americans within the bubble finally learned that the 21st century has gotten off to a very bad start in America. Welcome to the reality. We have a lot of work to do together to turn this around.

1 Some economists suggest the reason has to do with the unusual nature of the Great Recession: that downturns born of major financial crises intrinsically require longer adjustment and correction periods than the more familiar, ordinary business-cycle downturn. Others have proposed theories to explain why the U.S. economy may instead have downshifted to a more tepid tempo in the Bush-Obama era. One such theory holds that the pace of productivity is dropping because the scale of recent technological innovation is unrepeatable. There is also a "secular stagnation" hypothesis, surmising we have entered into an age of very low "natural real interest rates" consonant with significantly reduced demand for investment. What is incontestable is that the 10-year moving average for per capita economic growth is lower for America today than at any time since the Korean War—and that the slowdown in growth commenced in the decade before the 2008 crash. (It is also possible that the anemic status of the U.S. macro-economy is being exaggerated by measurement issues—productivity improvements from information technology, for example, have been oddly elusive in our officially reported national output—but few today would suggest that such concealed gains would totally transform our view of the real economy's true performance.)
2 Nicholas Eberstadt, *Men Without Work: America's Invisible Crisis* (Templeton Press, 2016)
3 This is not to ignore the gruesome exceptions—places like Chicago and Baltimore—or to neglect the risk that crime may make a more general comeback: It is simply to acknowledge one of the bright trends for America in the new century.
4 In 2013, roughly 2.3 million men were behind bars according to the Bureau of Justice Statistics.

QUESTIONS FOR THE RECORD FOR MS. FURCHTGOTT-ROTH SUBMITTED BY SENATOR AMY KLOBUCHAR

THE IMPORTANCE OF EARLY PREPARATION: ELEMENTARY AND SECONDARY EDUCATION

We must do everything in our power to prepare our children for the future. Last Congress, we passed a bipartisan bill that makes critical updates to "No Child Left Behind." I worked on a provision in this bill with my colleague Senator Hoeven to expand STEM opportunities by allowing school districts to use Federal funding to create STEM specialty schools or to enhance existing STEM programs within schools.

- *In addition to improving STEM education, what other steps could help prepare our children for postsecondary education and the labor force?*

This is a very important question. We need to make sure that children graduate with better math and writing skills so they will be prepared to start a job, a community college certification, or a four-year college program.

I have written about the failure of primary and secondary school education in Chapter 3 of my book, "Disinherited: How Washington Is Betraying America's Young," coauthored with Jared Meyer and published by Encounter Books in 2015. In 2016 the book won the Sir Antony Fisher International Memorial Prize from the Atlas Foundation.

In most fields, if you cannot do your job, you are replaced with someone who can. But not in education. First, measuring teaching ability is not simple, and matching teachers with students is not always easy to do—especially if parents are not allowed to choose their children's schools. Second, unqualified teachers can often stay on because they are protected by the educational system.

In 2015, American 15-year-olds scored several points below the Organization for Economic Cooperation and Development average on the PISA examination in mathematics, considered the gold standard for international testing. The U.S. ranking fell to 35th from 28th in 2012 in math, underperforming the OECD average. Small countries such as Latvia, Malta, and Vietnam, and large countries such as China and Russia all do better than we do in math. In reading and science, our 15-year-olds are above average, but around 24th, after Canada and most of Europe.

Children in the OECD member nations and in China, Vietnam, and Russia have longer school days and more days in the school calendar than do American children. Plus, when these children are at school, they have fewer hours of sports, assembly, and politically correct programs connected with, for instance, Women's History Month and Earth Day. Young Americans are often not taught difficult subjects, such as advanced literature or history, serious mathematics, hard sciences, or in-demand skills such as computer programming. Schools have dropped useful, career-oriented skills such as wood shop and auto mechanics.

Even if children do not do well in watered-down curricula, they are shuffled along to the next grade. The Board of Education is more interested in pleasing parents than in providing a solid curriculum. In order to graduate, some students have to have a certain number of hours of community service, but they do not have to meet standards in reading or math.

This is part of a pattern of American education that measures inputs rather than outputs. We measure hours of attendance and hours of community service rather than skills acquired. We often give extra credit for effort, but we do not require higher levels of competency in order to earn a high school diploma.

In contrast, many countries around the world focus high school graduation on a final set of exams, whether General Certificates of Secondary Education in England, the baccalaureate in France, or the Abitur in Germany. They do not consider hours of community service or level of effort; what matters is how well young people can demonstrate what they have learned. The result is predictable. Countries that evaluate young people on outputs such as how well they perform on an exam produce students who are more competent than those in countries that measure inputs.

Despite young Americans' poor performance, one area in which the Nation excels is in self-esteem. Eighty-four percent of American eighth-graders agreed with the statement "I usually do well in mathematics," with 39 percent of eighth-graders agreeing "a lot." This confidence does not translate into academic performance, however—in Singapore, where only 64 percent of eighth-graders have confidence in their math ability, the least-confident group of students outperforms the most-confident group of American students on international math assessments.

Immediately after World War II, the United States had better high school graduation rates than in any other country. How have we fallen so far?

Many believe that systemic poverty and underfunded schools are the cause of students' poor performance. But in the last 40 years, school funding has exploded. The

annual per-student cost of primary and secondary education in America is more than $13,000. After adjusting for inflation, this amounts to an increase of 239 percent over the last half century. America spends more on education per student than any other country in the world, yet average student achievement is only mediocre. Contrary to what many education advocates argue, increased spending by itself has not helped and will not do so in the future.

Part of the problem lies in dysfunctional families. In the recent book "Hillbilly Elegy," author J.D. Vance explained that no matter how good his school would have been, he could not concentrate on his studies due to his parents' fights at home, their subsequent divorce, and his mother's problems with drugs. He was woken several times during the night and shuttled from one parent to another. Solutions to these problems are beyond the scope of my reply to this question.

Another problem is that parents often want to send their children to good schools, but there are none available. In cities such as Washington, D.C., and New York where there are active charter schools, the good schools are vastly oversubscribed, and candidates chosen by lottery. America needs a system where poor schools go out of business and new schools thrive, just as with other businesses, such as restaurants.

We should also look at extending the hours of the school day, reducing vacations, and eliminating some of the time devoted to sports, so that children have more academic content in the school year.

QUESTIONS FOR THE RECORD FOR DR. DAVID HARRISON SUBMITTED BY SENATOR AMY KLOBUCHAR

THE IMPORTANCE OF EARLY PREPARATION: ELEMENTARY AND SECONDARY EDUCATION

We must do everything in our power to prepare our children for the future. Last Congress, we passed a bipartisan bill that makes critical updates to "No Child Left Behind." I worked on a provision in this bill with my colleague Senator Hoeven to expand STEM opportunities by allowing school districts to use Federal funding to create STEM specialty schools or to enhance existing STEM programs within schools.

- *In addition to improving STEM education, what other steps could help prepare our children for postsecondary education and the labor force?*

STEM education is an important component in college and career readiness for students. American Electric Power (AEP) and the AEP Foundation partnered with Columbus State to establish the Credits Count program to develop STEM career exploration opportunities in middle school, and to bolster college readiness by enabling high school students to earn college credits while still in high school in STEM-related fields. The Federal Government can support these regional efforts by expanding programs that are working. The National Science Foundation's Advanced Technological Education program is an important source of venture capital for community colleges to develop programs with employers. We are the only community college in the U.S. selected for the U.S. Department of Education's Investing in Innovation (i3) program, which will fund an aggressive expansion of programs designed to enhance college and career readiness in schools with a high percentage of low-income families.

In addition to STEM education, research shows that dual enrollment programs, like Credits Count, has a positive impact on college readiness. Findings from a report released by the National Student Clearinghouse indicated that students who earn college credit while still in high school have a 66 percent college completion rate, which is 12 percent higher than that of students who do not take dual credit classes while still in high school.

In Ohio, state policy has been adopted to further advance college credit pathways for high school students and create a deeper alignment between secondary and postsecondary education. College Credit Plus enables high school students to begin taking college coursework as soon as they are ready. Last year more than 4,800 high school students from 140 high schools and 60 school districts enrolled at Columbus State through College Credit Plus.

Columbus State has leveraged public-private partnerships and extensive employer collaboration described in the written testimony to quickly bring proven practices and programs to scale. We expect this growth to continue as more students and families look to Columbus State for a high-quality, affordable pathway to STEM careers.

QUESTION FOR THE RECORD FOR MR. SCOT MCLEMORE SUBMITTED BY SENATOR AMY KLOBUCHAR

QUESTION: THE IMPORTANCE OF EARLY PREPARATION: ELEMENTARY AND SECONDARY EDUCATION

We must do everything in our power to prepare our children for the future. Last Congress, we passed a bipartisan bill that makes critical updates to "No Child Left Behind." I worked on a provision in this bill with my colleague Senator Hoeven to expand STEM opportunities by allowing school districts to use Federal funding to create STEM specialty schools or to enhance existing STEM programs within schools.

- *In addition to improving STEM education, what other steps could help prepare our children for postsecondary education and the labor force?*

Thank you for the question and your efforts to expand access to STEM education. Honda supports early STEM education but also believes a clear "line of sight" should be provided for students and parents to better understand pathways to manufacturing careers. We must create enthusiasm for the career paths and job opportunities related to STEM disciplines through direct engagement with students and educators. Honda's educational video game, mobile labs, and plant tour are designed to address outdated perceptions of manufacturing and highlight the benefits of a career in modern manufacturing. Providing students with hands-on experience, even a virtual simulation, is an important step in creating enthusiasm for a manufacturing career and for other professional sectors as well. Efforts must also be made to engage parents, teachers and guidance counselors, who too often advocate that a four-year college route is necessary for professional success. Post-secondary work-study programs, like Honda's partnership with Columbus State Community College, allow students to experience the manufacturing environment and graduate debt-free with an associate degree that provides them the immediate skills needed to enter the labor force.

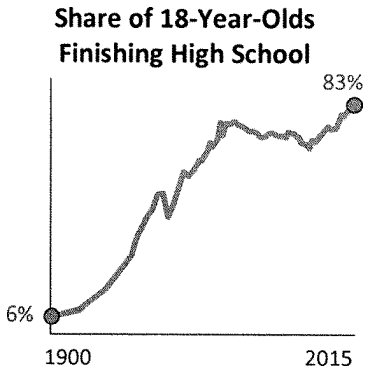
QUESTIONS FOR THE RECORD FOR DR. BETSEY STEVENSON SUBMITTED BY SENATOR AMY KLOBUCHAR

WORKFORCE TRAINING AND APPRENTICESHIPS

Dr. Stevenson, workforce training is crucial to make sure that our workers are trained today for the jobs of tomorrow. Senator Collins and I have introduced the American Apprenticeship Act, which provides competitive grants to states that have developed effective strategies to diversify, market, and expand Registered Apprenticeship and pre-apprenticeship programs. Our community colleges also play an important role in helping to create a high-skilled workforce, and I have seen the benefits of apprenticeship programs and community colleges working with local industries in Minnesota.

- *Can you discuss how apprenticeships and community college programs can work together to help workers build the skills they need to compete in the 21st century economy?*
- *From your experience, can you discuss in more detail the benefits of apprenticeship programs in a broader range of career paths and skills?*
- *What gaps do you currently see in Federal policy when it comes to supporting and expanding apprenticeships in the United States?*

In the 20th century, America led the world in educating her citizens. While other countries mocked us for training people who they claimed didn't need training, we ignored these naysayers and built more high schools. The result was that we went from only 6% of 18-year-olds with a high school degree in 1900 to more than half by 1940. Today, nearly nine in ten Americans age 25 and older have a high school diploma, and one in three Americans have a bachelor's degree. Many scholars have argued that by bolstering the skills of American workers we laid the foundation for the tremendous growth that America experienced in the 20th century.



The rate of return for investing in education is high—each year of college raises lifetime earnings by around 8 percent, and completing a college degree raises a person's lifetime earnings by more than a million dollars. Because a more educated citizenry is a more productive workforce, countries with more educated citizens tend to have greater GDP per person.

It is clear that it is time for the United States to take back the lead in training our citizens if we want to continue to have a successful and innovative economy. So what's the best way to do that? We need to make college more affordable and accessible to more people. But even more important to our success, we need to increase the rate at which people succeed and successfully complete college or other training programs. Apprenticeships and other on-the-job training during school hold the possibility of preparing students for the world of work, while keeping them engaged, motivated, and confident enough to complete their studies.

Many people learn better through situated learning by actively participating in the learning experience, such as what occurs during apprenticeships. The United States faces two pressing challenges in developing apprenticeship programs. The first is that there are far too few. Apprenticeships have been growing and the Department of Labor, as I'm sure you are aware, currently lists more than a half million active apprentices. A study by the Center for American Progress, however, argues that this is less than a tenth of what other countries, such as the United Kingdom, have once you adjust for population size. To put it in perspective, there are roughly 20 million people attending college. We could and should expand apprenticeship slots substantially.

The second problem is that apprenticeships need to move beyond the trade occupations into services. The U.S. economy is a service-based economy. Construction and manufacturing jobs, a focus for many apprenticeship programs, are a mere 13 percent of all jobs in the economy. Eighty-four percent of workers employed in the private sector in the United States work in the service-producing sector. A third of our exports are services, such as business and professional services like consulting, computer services, and financial services. In order for apprenticeships to succeed in training workers for the jobs of the future, our apprenticeship programs need to expand into the types of jobs workers are more likely to be hired into. For instance, last month 45 thousand jobs were created in health care and social assistance. There need to be more apprenticeship programs dedicated to areas such as health and educational services.

Community colleges can play an important role in developing hybrid programs in which students do necessary classroom learning that is complemented by on-the-job training. Such programs may be particularly important to raise productivity in the service sector and to provide workers with the skills they need as our economy continues to shift toward one that requires workers to have more adaptable skills.

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