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IMPROVING CAREER AND TECHNICAL EDUCATION TO HELP STUDENTS SUCCEED IN THE WORKFORCE

HEARING

BEFORE THE

SUBCOMMITTEE ON EARLY CHILDHOOD, ELEMENTARY, AND SECONDARY EDUCATION

COMMITTEE ON EDUCATION AND THE WORKFORCE

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

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IMPROVING CAREER AND TECHNICAL EDUCATION TO HELP STUDENTS SUCCEED IN THE WORKFORCE

Tuesday, October 27, 2015
House of Representatives,
Subcommittee on Early Childhood,
Elementary, and Secondary Education,
Committee on Education and the Workforce,
Washington, D.C.

The subcommittee met, pursuant to call, at 10:00 a.m., in Room 2261, Rayburn House Office Building, Hon. Todd Rokita [chairman of the subcommittee] presiding.

Present: Representatives Rokita, Thompson, Brat, Carter, Bishop, Grothman, Fudge, Davis, Grijalva, Bonamici, Takano, and Clark.

Also Present: Representatives Kline, Scott of Virginia and Polis.

Staff Present: Lauren Aronson, Press Secretary; Janelle Belland, Coalitions and Members Services Coordinator; Amy Raaf Jones, Director of Education and Human Resources Policy; Nancy Locke, Chief Clerk; Dominique McKay, Deputy Press Secretary; Brian Newell, Communications Director; Krisann Pearce, General Counsel; James Redstone, Professional Staff Member; Alex Ricci, Legislative Assistant; Emily Slack, Professional Staff Member; Alissa Strawcutter, Deputy Clerk; Juliane Sullivan, Staff Director; Tylease Alli, Minority Clerk/Intern and Fellow Coordinator; Austin Barbera, Minority Staff Assistant; Denise Forte, Minority Staff Director; Brian Kennedy, Minority General Counsel; Alexander Payne, Minority Education Policy Advisor; Veronique Pluviose, Minority Civil Rights Counsel; and Rayna Reid, Minority Education Policy Counsel.

Chairman ROKITA. A quorum being present, the Subcommittee on Early Childhood, Elementary, and Secondary Education will come to order.

Good morning, everyone, and welcome to today's hearing on career and technical education. I would like to thank our witnesses for joining us as we explore opportunities to better serve America's workforce.

Young adults are entering a job market today that is vastly different than the one that existed just a generation ago. Technological advances and the growth of a global economy have significantly changed the kinds of jobs available and the skills required

to do them, making quality education and training vital ingredients to success in today's workplaces.

This new reality has been painfully evident in the wake of the recent recession. We are more than 6 years into the so-called recovery, yet millions of Americans continue to struggle with finding a good-paying job. Meanwhile, industries critical to our economy—health care, engineering, and manufacturing, for example—have jobs to fill and not enough qualified applicants to take them, a problem we have come to know as the skills gap.

Recognizing the urgent need to close the gap and put Americans back to work, Republicans and Democrats came together last Congress to fix a broken and outdated job training system. The bipartisan, bicameral effort resulted in what we call the Workforce Innovation and Opportunity Act, a commonsense solution to modernize and improve the Federal workforce development system. The Workforce Innovation and Opportunity Act will help workers obtain skills for 21st century jobs and cultivate a modern workforce that evolving American businesses truly need.

But we still have more work to do. By reauthorizing the Carl D. Perkins Career and Technical Education Act, we have an opportunity to help even more Americans, especially younger Americans, to enter the workforce with the tools and knowledge necessary to compete in the high-skilled, in-demand jobs of our economy—in short, to compete in a 21st century world and win. Last reauthorized in 2006, the law provides Federal support for State and local programs focused on preparing high school and community college students for technical careers.

Now, unfortunately, many of these career and technical education programs have not kept pace with the changing workforce. In a report released by the Counsel for Chief State School Officers, education leaders explained that, quote, "Career education in too many of our secondary schools reflects an outdated model that tolerates low expectations and is often misaligned with the evolving needs of the current labor market."

With more than 14 percent of young adults unemployed and the highest level of unfilled jobs since 2001, it's no wonder States have started to take action. My home State of Indiana, for example, is partnering with local businesses to develop a new high school curriculum that better meets the needs of local communities and ensures that students are prepared to enter high-skilled jobs right after earning their diploma.

As Governor Mike Pence testified at a hearing here earlier this year, quote, "For those students who are not bound for the traditional 4-year college, we must still ensure that they can thrive in future careers. And one way to do this is to again make career and technical education a priority," unquote.

By working with the private sector to develop resources for successful career and technical education programs, Indiana has made incredible gains over the last 2 years. The State has helped thousands of hard-working Hoosiers join the workforce and attracted more good-paying jobs for people in our communities. It's our hope that the success we've experienced in Indiana not only continues for our State, but is replicated across the country.

The goal at the Federal level and what we are here to discuss today is how to ensure investment in these State and local efforts is paying off for students that we all aim to serve. To help reach that goal, we should consider reforms that encourage States to align high school and postsecondary course work with the needs of the workforce. This will require a look at existing Federal requirements, many of which, in my opinion, are duplicative and can hinder State and local efforts to development and implement their own successful programs.

Helping Americans compete and succeed in today's workforce remains one of the committee's leading priorities, and today's discussion is an important part of that effort. I look forward to hearing from our panel of witnesses as we work to improve the Perkins Act and strengthen support for young Americans as they enter the workforce.

And before I recognize my friend Ranking Member Fudge, I would like to note that one of our witnesses today, Dr. Douglas Major, is a resident of Stillwater, Oklahoma. On Saturday, the people of Stillwater and the surrounding communities were celebrating Oklahoma State University's homecoming when a driver crashed into the homecoming parade. This terrible tragedy injured more than 40 individuals and killed four others.

Dr. Major, or behalf of this committee, I want to extend my deepest sympathies to you, the people of Stillwater, and the entire Oklahoma State University community. We pray for the recovery of those who remain hospitalized and in critical condition, and we lift up our thoughts and prayers to the victims and their families.

[The statement of Chairman Rokita follows:]

Prepared Statement of Hon. Todd Rokita, Chairman, Subcommittee on Early Childhood, Elementary, and Secondary Education

Young adults are entering a job market today that is vastly different from the one that existed a generation ago. Technological advances and the growth of a global economy have significantly changed the kinds of jobs available and the skills required to do them, making quality education and training vital ingredients to success in today's workplaces. This new reality has been painfully evident in the wake of the recent recession. We are more than six years into the so-called recovery, yet millions of Americans continue to struggle with finding a good-paying job. Meanwhile, industries critical to our economy – health care, engineering, and manufacturing, for example – have jobs to fill and not enough qualified applicants to fill them; a problem we have come to know as "the skills gap."

Recognizing the urgent need to close the gap and put Americans back to work, Republicans and Democrats came together last Congress to fix a broken and outdated job training system. The bipartisan, bicameral effort resulted in the Workforce Innovation and Opportunity Act, a commonsense solution to modernize and improve the federal workforce development system. The Workforce Innovation and Opportunity Act will help workers attain skills for 21st century jobs and cultivate the modern workforce that evolving American businesses need.

But we still have more work to do. By reauthorizing the Carl D. Perkins Career and Technical Education Act, we have an opportunity to help more Americans – especially younger Americans – enter the workforce with the tools and knowledge necessary to compete for the high-skilled, in-demand jobs in our economy. Last reauthorized in 2006, the law provides federal support for state and local programs focused on preparing high school and community college students for technical careers.

Unfortunately, many of these career and technical education programs have not kept pace with the changing workforce. In a report released by the Council for Chief State School

Officers, education leaders explained, "Career education in too many of our secondary schools reflects an outdated model that tolerates low expectations and is often misaligned with the evolving needs of the current labor market."

example, is partnering with local businesses to develop a new high school curriculum that better meets the needs of local communities and ensures students are prepared to enter high-skilled jobs right after earning their diploma. As Governor Mike Pence testified at a hearing earlier this year, "For those students who are not bound for the traditional four-year college, we must still ensure that they can thrive in future careers, and one way to do this is to again make career and technical education a priority."

By working with the private sector to develop resources for successful career and technical education programs, Indiana has made incredible gains over the last two years: The state has helped thousands of hardworking Hoosiers join the workforce and attracted more good-paying jobs for people in our communities. It is our hope the success we've experienced in Indiana can be replicated across the country.

The goal at the federal level, and what we are here to discuss today, is to ensure our investment in these state and local efforts is paying off for the students we aim to serve. To help reach that goal, we should consider reforms that encourage states to align high school and postsecondary coursework with the needs of the workforce. This will require a look at existing federal requirements, many of which are duplicative and can hinder state and local efforts to develop and implement successful programs.

Helping Americans compete and succeed in today's workforce remains one of the committee's leading priorities, and today's discussion is an important part of that effort. I look forward to hearing from our panel of witnesses as we work to improve the Perkins Actand strengthen support for young Americans as they enter the workforce.

Before I recognize Ranking Member Fudge, I would like to note that one of our witnesses today, Dr. Douglas Major, is a resident of Stillwater, Oklahoma. On Saturday, the people of Stillwater and the surrounding communities were celebrating Oklahoma State University's homecoming, when a driver crashed into the homecoming parade. This terrible tragedy injured more than 40 individuals and killed four others.

Dr. Major, on behalf of the committee, I want to extend my deepest sympathies to you, the people of Stillwater, and the entire Oklahoma State University community. We pray for the recovery of those who remain hospitalized and in critical condition, and we lift up in our thoughts and prayers the victims and their families. Thank you for being with us today.

Mr. MAJOR. Yes, sir. Thank you.

Chairman ROKITA. And thank you for being able to continue to be with us today.

I now would like to recognize Ranking Member Fudge for her opening remarks.

Ms. FUDGE. Thank you very much, Mr. Chairman.

Thank you all for being here today.

Today we are going to examine the critical role of career and technical education programs that prepare our Nation's students for success in college and career. Many of these programs are funded through the Carl D. Perkins Career and Technical Education Improvement Act of 2006.

According to the Georgetown University Center on Education and the Workforce, in the next 5 years 65 percent of all jobs in the United States will require training beyond high school. In my home State of Ohio career and technical education is available at every public high school. Other States should follow Ohio's lead so career and technical education is available at every high school across this Nation.

The importance of CTE cannot be overstated. Its programs equip our Nation's students with the skills they need to succeed and in a rapidly evolving 21st century economy.

Unfortunately, after harmful sequestration cuts, public funding for CTE is at historic lows. It is clear that we should not continue to cut funding for critical programs like CTE that engage students with an integrated curriculum of core academic content and real world, work-based relevance. Instead, we must support high-quality CTE programs.

Currently, our Nation faces an unprecedented skills gap, and CTE programs are integral to closing that gap. We must do everything we can to maintain and strengthen these programs.

For many years, the Perkins Act has supported the development of CTE programs that cultivate in-demand skills among secondary and postsecondary students. We must do more to spur innovation with the delivery of CTE to reward and replicate programs achieving positive outcomes for students and industry and to ensure CTE is positioned to drive economic success through better workforce alignment and increased collaboration.

Reauthorization of the Carl D. Perkins Career and Technical Education Act presents this committee with an opportunity to ensure that all students are equipped with the skills to succeed in a rapidly evolving 21st century economy.

I look forward to hearing from our distinguished panel of witnesses and working with the majority to reauthorize the act. Further, I have received, Mr. Chairman, a letter from our colleague, Mr. Langevin, and he would like to enter it into the record.

Chairman ROKITA. Without objection.

[The information follows:]

Representative Jim Langevin (RI-02)
Submission for the Record
Committee on Education and the Workforce

"Improving Career and Technical Education to Help Students Succeed in the Workforce"
October 28, 2015

Chairman Rokita and Ranking Member Fudge, thank you for convening today's hearing.

As co-chair of the bipartisan Career and Technical Education (CTE) Caucus, alongside Mr. Thompson of Pennsylvania, I have made the reauthorization of the Carl D. Perkins Career and Technical Education Act one of my top priorities. I am pleased that the committee has taken this important step, and I look forward to working with my colleagues to ensure that Perkins is up to date and fully funded.

The Perkins Act is a major federal funding source for career and technical education in high schools, career and tech centers and community and technical colleges that support professional development, access to the latest technology and equipment, and integration of academic and technical education. Unfortunately, while demand for CTE has increased, funding for the Perkins Act has remained unchanged for almost a decade. From a high-water mark of $1.3 billion in FY2010, Perkins funding has fallen, most recently to $1.125 billion in the current Fiscal Year. With inflation taken into account, this is equivalent to a cut of $275 million over the past five years.

I would strongly urge the Committee to authorize funding for Perkins at a level beyond the FY2010 appropriation. Locking in the current funding level would hurt thousands of students and businesses in every state. As demand for Career and Technical Education grows, we have an obligation to make sure that investments keep pace. Businesses depend on CTE to address the skills gap and reverse shortages of qualified job candidates. They know that CTE students can help meet these demands quickly, and many postsecondary credential and degree programs are available to help students advance. Failure to adequately authorize and fund Perkins would be exactly the wrong step if we want to continue our economic recovery.

Money invested in CTE programs is returned back to the economy many times over. In a recent study, the State of Connecticut found that every dollar invested in community college coursework returns $16.40 over the course of a student's career. This translates to a $5 billion per year return to the state. Imagine what we could achieve if such investments were in place on a national level.

One of the most insidious effects of stagnant Perkins funding is the ever-growing skills gap: businesses are unable to find employees with the skills to match their job openings, and workers are finding themselves unqualified for the best available jobs. We have some wonderful examples in Rhode Island of partnerships that align workforce training with the needs of employers, but these programs need to be nurtured and expanded. Closing the skills gap is one of the most important things we can do to get our economy moving again, and emphasizing CTE

at every level, from elementary school to college and beyond, will help turn out highly-skilled and motivated workers.

High school diplomas are no longer sufficient training for the modern job market. A four-year degree, two-year degree, or professional certification is now a key precursor to building a successful and rewarding career. In fact, over 30 percent of the 46.8 million projected job openings by 2018 will require some college education. Meanwhile, eight of the top 20 fastest-growing industries in the coming decades will be in the health care industry. Many of these positions will require a 2-year degree or less, but more than a high school education.

Ultimately, the success of any skills training program lies in an employer-educator partnership. Students need to be aware of the skills necessary to succeed in their chosen field, and they need to visualize the potential opportunities available to them. The emphasis on in-demand skills cannot be overstated, and the easiest way to ensure training matches workplace needs is to make sure that employers and school systems are working hand-in-hand to train the future workforce.

One of the most effective means to expand coordination between employers and educators is through the use of apprenticeships. While these programs are uncommon in the United States, they have enjoyed longtime and widespread acceptance in Europe, particularly in Switzerland and Germany. In fact, two-thirds of Swiss students and 60% of Germans are finding their careers through an apprenticeship. A regional consortium in North Carolina, led by the Daetwyler Corporation, has been offering apprenticeships in this model for over a decade now. They have partnered with Piedmont Community College to offer classes that align with the apprentices' work schedule.

The success of these programs lies in strong buy-in from local businesses. We need to make sure that Perkins provides support to companies so that offering apprenticeships becomes a viable business strategy. Community colleges, likewise, need the flexibility to accommodate these apprentices and offer classes that fit into the schedule of a full-time employee. Perkins should encourage more communities to adopt this model, and disseminate best practices in this field.

In the previous Congress, the Workforce Investment Act was reauthorized in a broadly bipartisan agreement. Now comes an opportunity to build on that success and align Perkins funding to WIOA standards. WIOA's definition of "recognized postsecondary credentials" – not just degrees, but certifications and the full spectrum of credentials available – was a much-needed update to federal law. Now it is time to ensure that Perkins-funded programs lead to student attainment of these credentials.

Finally, I would urge the Committee to help shift the culture surrounding Career and Technical Education. Every student, no matter his or her career goals, should participate in some form of career education. Not only will this help students decide if their chosen career path is the right one, but it will make for a more seamless transition to full-time employment when they enter the world of work. Students should begin exploring their career options in middle school – not as a way to silo students but as a way to ensure that career skills and career exploration are part of every student's secondary education.

Thank you again for convening today's hearing. Perkins has traditionally been a bipartisan endeavor, and I am hopeful that we can continue this tradition moving forward. I look forward to working with my colleagues on the committee to ensure that all Americans have the training to be career and college ready.

Ms. FUDGE. Thank you very much.

And, Dr. Major, my condolences as well.

I yield back.

[The statement of Ms. Fudge follows:]

Prepared Statement of Hon. Marcia L. Fudge, Ranking Member, Subcommittee on Early Childhood, Elementary, and Secondary Education

Good morning and thank you, Chairman Rokita.

Today's hearing will examine the critical role of career and technical education programs in preparing our nation's students for success in college and career. Many of these programs are funded under the Carl D. Perkins Career and Technical Education Improvement Act of 2006.

According to Georgetown University's Center on Education and the Workforce, in the next five years, 65 percent of all jobs in the United States' economy will require training beyond high school. In my home state of Ohio, career and technical education (CTE) is available at every public high school.

Other states should follow Ohio's lead, so career and technical education is available in every high school across the country. The importance of CTE cannot be overstated—its programs equip our nation's students with the skills they need to succeed in a rapidly evolving 21st century economy.

Unfortunately, after harmful sequestration cuts, public funding for CTE is at historic lows. It is clear that we should not continue to cut funding for critical programs, like CTE, that engage students with an integrated curriculum of core academic content and real-world, work-based relevance.

Instead, we must support high quality CTE programs.Currently, our nation faces an unprecedented skills gap, and CTE programs are integral to closing that gap. We must do everything we can to maintain and strengthen these programs.

For many years, the Perkins Act has supported the development of CTE programs that cultivate in-demand skills among secondary and postsecondary students.

We must do more to spur innovation in the delivery of CTE, to reward and replicate programs achieving positive outcomes for students and industry, and to ensure CTE is positioned to drive economic success through better workforce alignment and increased collaboration.

Reauthorization of the Carl D. Perkins Career and Technical Education Act presents this Committee with an opportunity to ensure that ALL students are equipped with the skills to succeed in a rapidly evolving 21st century economy.

I look forward to hearing from our distinguished panel of witnesses, and

working with the Majority to reauthorize the Perkins Act.

Thank you and I yield back.

Chairman ROKITA. Thank you, Ranking Member Fudge.

Pursuant to Committee Rule 7(c), all members will be permitted to submit written statements to be included in the permanent hearing record. And without objection, the hearing record will remain open for 14 days to allow such statements and other extraneous material referenced during the hearing to be submitted for the official hearing record.

[The information follows:]Thompson

Career and Technical Education Caucus
Submission for the Record
Committee on Education and the Workforce

"Improving Career and Technical Education to Help Students Succeed in the Workforce"
October 28, 2015

Chairman Rokita and Ranking Member Fudge, thank you for convening today's hearing.

As Co-Chairs of the Career and Technical Education Caucus, we firmly believe that supporting and expanding Career and Technical Education (CTE) is a tried and true method of creating jobs, retraining workers, and ensuring that students of all ages are career-and-college-ready. Due to the fact that CTE is critical for a competitive American workforce, we look forward to the opportunity to analyze existing CTE programs and support the long-term improvement of these programs through the reauthorization process of the Carl D. Perkins Career and Technical Education Act.

The goal of today's hearing is to focus on how to better align career and technical education programs with student and employer needs. This is critical to meeting the demands of today's economy, which requires a workforce that possesses more complex knowledge and skills than ever before. In addition to preparing students for promising career pathways, CTE programs have the potential to bolster state-specific industries that are in need of trained workers. This is why increased coordination between educational institutions and employers will genuinely strengthen our nation's overall economy.

In addition to aligning CTE programs with the needs of regional, state, and local labor markets and supporting effective collaboration between students and employers, we believe that working to increase the overall awareness and understanding of CTE programs is crucial to their effectiveness. We must focus on highlighting the value of a career and technical education, and eliminating the perception that it is a lesser alternative among high school and higher education offerings. We will continue to join with parents, school counselors, business owners, and fellow legislators to voice our support for dramatically decreasing the stigma associated with CTE pathways.

Lastly, we will remain vigilant in our support for the allocation of adequate federal resources to career and technical education programs. While we were pleased that the Fiscal Year (FY) 2014 consolidated appropriations bill contained an increase of funding for career and technical education by $52 million, we maintain that there is still work to be done. These funds are used to empower young people and prepare them for well-paid jobs, and the investment is returned to our economy many times over through a skilled workforce.

Today's Committee-level discussion is an important step in the right direction. We are encouraged by the Committee's willingness to launch a bipartisan dialogue on how to improve the federal role in CTE, and are looking forward to remaining involved in this ongoing discussion.

Sincerely,

Glenn 'GT' Thompson
Member of Congress

Jim Langevin
Member of Congress

Chairman ROKITA. I will now turn to the introduction of our distinguished witnesses.

First off, Dr. Deneece Huftalin is the president of the Salt Lake Community College in Salt Lake City, Utah. SLCC is a comprehensive community college serving more than 60,000 students, including approximately 29,000 CTE students. SLCC works with school districts in the Salt Lake City area to ensure CTE programs offered by those institutions put students on track for high-wage, high-demand jobs. As president, Dr. Huftalin works closely with industry leaders to strengthen SLCC's responsiveness to workforce needs.

Welcome.

Next, Dr. Douglas Major is the superintendent and CEO of Meridian Technology Center in Stillwater, Oklahoma. The center provides customized education and training services for individuals, industries, and communities. The center partners with local business to align its curriculum with business needs and works with local high schools and 2-year colleges to ensure students may receive credit towards both a high school diploma and an associate's degree. Dr. Major is a past president of the Association for Career and Technical Education and has served on the Oklahoma Employment Security Commission.

Welcome, again.

Dr. Irelene Ricks is director of Diversity in Life Science Programs with Keystone Symposia on Molecular and Cellular Biology here in Washington. Dr. Ricks oversees the Keystone Symposia's Fellows program, the Underrepresented Scholarship and Early-Career Investigator Travel Award programs, and additional mentoring programs that take place in connection with Keystone Symposia's life science research conferences. She has served as a grants administrator at Howard University and a policy analyst for the White House Office of Management and Budget.

Welcome.

Mr. Tim Johnson is director of government relations with the National Center for Construction Education and Research in Baton Rouge, Louisiana. The National Center for Construction Education and Research works with the construction industry to create standardized training and credentialing programs for the industry. In addition to his work with NCCER, Mr. Johnson has worked as the director of training for the Associated Builders & Contractors.

Welcome to you.

I will now ask our witnesses to stand and raise your right hand.

[Witnesses sworn.]

Chairman ROKITA. Let the record reflect that the witnesses have answered all in the affirmative.

And you may be seated.

Before I recognize you to provide your testimony, let me briefly explain our lighting system. You each have 5 minutes to present your testimony. And just like the traffic lights, when 1 minute is left the light will turn yellow. I'm not sure a traffic light stays yellow for a minute, but you get the point.

I can say something about my spouse and traffic.

When your time has expired, the light will turn red. At that point, I'll ask you to wrap up your remarks as best you are able. Members will each have 5 minutes to ask questions of you then.

So we'll start with Dr. Huftalin. You are recognized for 5 minutes.

TESTIMONY OF DR. DENEECE G. HUFTALIN, PRESIDENT, SALT LAKE COMMUNITY COLLEGE, SALT LAKE CITY, UTAH

Ms. HUFTALIN. Good morning, Chairman Rokita, Ranking Member Fudge, and members of the committee. Thank you for the opportunity to appear today to discuss this important issue. My name is Deneece Huftalin, and I serve as the president of Salt Lake Community College, having served at the college in various leadership capacities for over 23 years.

Salt Lake Community College, as you heard, is an accredited, student-focused, comprehensive community college meeting the diversities of the Salt Lake Valley. Home to more than 60,000 students each year, Salt Lake Community College is the largest supplier of transfer students to Utah's 4-year institutions and a perennial top 10 college nationally for total associate's degrees awarded.

Twenty percent of our students identify as minority, 10 percent identify as having some disability, and last fall 64 percent of our incoming students were first generation. We are also proud to serve 642 veteran students and have consistently been named as a top college for veterans by Military Times.

The college is also Utah's leading provider of workforce development programs, with more than 28,000 students enrolled in CTE courses last year. With 211 certificate and degree programs, SLCC offers a breadth of workforce training opportunities for Salt Lake County residents.

Career and technical education programs are designed to prepare students to enter the workforce immediately upon completion. Students can enter our college in noncredit or credit-bearing CTE programs and can earn short-term certificates as well as associate degrees. Our CTE programs range from traditional vocational programs, like welding and building construction, to newer programs, such as biomanufacturing and digital animation.

The Carl D. Perkins Act is a vital source of financial support for Salt Lake Community College and for all community colleges. Over the last several years, as the recession weakened State investment toward higher education, Perkins funding was crucial to our ability to maintain and grow key CTE programs for our students at a time when our enrollment was rapidly increasing.

For the 2016 fiscal year, Salt Lake Community College received approximately $1.25 million in Perkins funds. The college uses those funds to improve CTE offerings throughout the institution.

Acquiring modern equipment is imperative for state-of-the-art CTE programs. These programs are costly to maintain and often require significant financial investment to ensure we have the latest technologies and equipment to train our students to enter today's ever-advancing and technical workplace.

The college has used Perkins funds to purchase a wide range of items, such as dental hygiene x-ray view boxes, materials fatigue testers, and CNC machining equipment, all items we would be unable to purchase without the Perkins funding. In addition, Perkins funding has allowed us to ramp up our training in aviation maintenance avionics to meet industry demand and to maintain high-

quality training in automotive diesel training and building construction, all critical industries which contribute to a healthy economy.

While Perkins funding primarily supports advanced equipment needs, Perkins dollars also strengthen the essential student support services many of our students need to be successful. As we strive to increase our completion rates, Perkins funding is essential to enhance advising and disability resource center services.

As I close my remarks, I'd like to share two brief examples of how we are using Perkins funding to meet the needs of both our employers and our students.

A few months ago, the Boeing Company of Salt Lake, on behalf of several major aerospace manufacturing companies, approached the State and its educational partners about working collectively to provide more trained workers for the State's rapidly growing aerospace industry. Within a short timeframe, we created the Utah Aerospace Pathways Program. Under this pilot program, high school students enroll in a specialized set of courses in aerospace manufacturing.

The students take one semester in high school, followed by a second semester at Salt Lake Community College or the Davis Applied Technology College. They then participate in a 48-hour paid internship with local aerospace partners, and upon successful completion of their coursework and internship will graduate with a certificate in aerospace manufacturing. The certificate allows students to begin a career immediately in the aerospace industry at a livable wage.

The training provided through this program will center on machining, fabrication, and composite skills, all CTE fields that are increasingly in demand in aerospace and other advanced manufacturing industries. We are proud to be part of this collaborative effort which demonstrates best practices in CTE using local industry data to establish relevant, strong career programs between secondary, higher, and industry leaders.

My second example of CTE at work relates to one of our recent graduates. As a single mother of two and a 14-year veteran of the United States Army, Darlene needed a career change. Working as a concrete contractor, she knew it would be a matter of time until the physical strain took its toll.

Darlene enrolled in our Non-Destructive Testing program with hopes of coupling her critical thinking and analytical skills with her strong work ethic. Darlene completed in 2 years and received multiple employment offers promising exceptional benefits.

Career and technical education has always been and will be the very core of our mission at Salt Lake Community College. The Perkins program is critical to our ability to provide these in-demand programs for industry and for thousands of students like Darlene.

We appreciate your past support of the Perkins program and encourage your current support as this worthwhile program is considered for reauthorization. I would be happy to address any questions from the committee.

[The testimony of Ms. Huftalin follows:]

Dr. Deneece Huftalin
President
Salt Lake Community College

Subcommittee on Early Childhood, Elementary, and Secondary Education
U.S. House of Representatives

"Improving Career and Technical Education to Help Students Succeed in the Workforce"

Tuesday, October 27, 2015

Good morning, Chairman Rokita, Ranking Member Fudge and members of the committee. Thank you for the opportunity to appear today to discuss this important issue. My name is Deneece Huftalin and I serve as the President of Salt Lake Community College having served at the College in various leadership capacities for 23 years.

Salt Lake Community College is an accredited, student-focused, comprehensive community college meeting the diverse needs of the Salt Lake Valley. Home to more than 60,000 students each year, Salt Lake Community College is the largest supplier of transfer students to Utah's four-year institutions and a perennial Top 10 college nationally for total associate's degrees awarded. Twenty percent of our students identify as minority, 10% identify as having some disability, and last fall 64% of our incoming students were first-generation. We are also proud to serve 642 veteran students and have consistently been named as a top college for veterans by Military Times.

The College is also Utah's leading provider of workforce development programs, with more than 28,000 students enrolled in CTE courses last year. With 211 certificate and degree programs, SLCC offers a breadth of workforce training opportunities for Salt Lake County residents.

Career and technical education programs are designed to prepare students to enter the workforce immediately upon completion. Students can enter our

College in non-credit and credit-bearing CTE programs, and can earn short-term certificates as well as associate's degrees. Our CTE programs range from traditional vocational programs like welding and building construction, to newer programs such as biomanufacturing and digital animation.

The Carl D. Perkins Act (Perkins) is a vital source of financial support for Salt Lake Community College and for all community colleges. Over the last several years as the recession weakened state investment in higher education, Perkins funding was crucial to our ability to maintain and grow key CTE programs for our students at a time when our enrollment was rapidly increasing.

For the 2016 fiscal year, Salt Lake Community College received approximately $1.25 million in Perkins funds. The College uses those funds to improve CTE offerings throughout the institution.

Acquiring modern equipment is imperative for state-of-the-art CTE programs. These programs are costly to maintain and often require significant financial resources to ensure we have the latest technologies and equipment to train our students to enter today's ever-advancing and technical workplace. The College has used Perkins funds to purchase a wide range of items such as Dental Hygiene X-Ray View Boxes, Materials Fatigue Testers and CNC machining equipment, all items we would be unable to purchase without the Perkins

funding. In addition, Perkins funding has allowed us to ramp up our training in Aviation Maintenance Avionics to meet industry demand and maintain high-quality training in Automotive, Diesel Training and Building Construction, all critical industries which contribute to a healthy economy.

While Perkins funding primarily supports advanced equipment needs, Perkins dollars also strengthen the essential student support services many of our students need to be successful. As we strive to increase our completion rates, Perkins funding is essential to enhance advising and disability resource center services.

As I close my remarks, I'd like to share two brief examples of how we are utilizing Perkins funding to meet the needs of both our employers and students.

A few months ago The Boeing Company in Salt Lake, on behalf of several major aerospace manufacturing companies, approached the state and its educational institutions about working collaboratively to provide more trained workers for the state's rapidly-growing aerospace industry. Within a short timeframe, we created the Utah Aerospace Pathways Program.

Under this pilot program, high school students enroll in a specialized set of courses in aerospace manufacturing. The students take one semester at a

participating high school followed by a second semester at Salt Lake Community College or the Davis Applied Technology College. They then participate in a 48-hour paid internship with local aerospace partners and, upon successful completion of their coursework and internship, will graduate with a certificate in aerospace manufacturing. The certificate allows students to begin a career immediately in the aerospace industry at a livable wage.

The training provided through this program will center on machining, fabrication and composites skills, all CTE fields that are increasingly in demand in aerospace and other advanced manufacturing industries. We are proud to be part of this collaborative effort which demonstrates best practices in CTE: using local industry data to establish relevant, strong career pathways between secondary education, higher education and industry leaders.

My second example of CTE at work relates to one of our recent graduates. As a single mother of two and a 14-year veteran of the United States Army, Darlene needed a career change. Working as a concrete contractor she knew it would only be a matter of time until the physical strain would be too much for her to manage. Darlene enrolled in our Non-Destructive Testing program with hopes of coupling her critical thinking and analytical skills with her strong work ethic. Darlene completed in two years and received multiple employment offers promising exceptional wages and benefits. Darlene's new job allows her

to provide for her family while excelling in a challenging and rewarding career.

Career and technical education has always been, and will continue to be, at the very core of our mission at Salt Lake Community College. The Perkins program is critical to our ability to provide these in-demand programs for industry and for thousands of students like Darlene who have bright futures because of the training they receive at Salt Lake Community College.

We appreciate your past support of the Perkins program and encourage your continued support as this worthwhile program is considered for reauthorization. I would be happy to address any questions from the committee.

Chairman ROKITA. Thank you for your testimony.

Dr. Major.

TESTIMONY OF DR. DOUGLAS MAJOR, SUPERINTENDENT/CEO, MERIDIAN TECHNOLOGY CENTER, STILLWATER, OKLAHOMA

Mr. MAJOR. Thank you, Chairman Rokita, Ranking Member Fudge, and all members of the committee, for the invitation to be with you today to testify on behalf of Meridian Technology Center and career and technical education, or CTE, a topic that I'm very passionate about. Today I'm representing Meridian Technology Center in north-central Oklahoma, where I serve as superintendent. I'm also a past president of the Association for Career and Technical Education.

Meridian Technology Center is a publicly funded CTE school. We offer opportunities in health, trade and industry, information technology, and STEM-related curriculum to a diverse range of both secondary and postsecondary students. This morning, I would like to take a few minutes to highlight some of the hallmarks of our quality CTE programs.

First, our curriculum is based upon industry-recognized standards and is guided by employers, trade association representatives, and community leaders working with our teachers and administrators. This year, 294 individuals are involved in our advisory committees and give us in-depth input on curriculum as well as commit to helping our students throughout the year by providing ongoing support, job-shadowing opportunities, and on-the-job training placements.

In addition, Meridian is also involved in statewide industry sector initiatives. For example, we participate in an aerospace consortium in which multiple technology centers contract with the liaison between our local schools and the aerospace employers in our State. This ensures that our program offerings meet the needs of employers and students beyond our geographic bounds.

Second, we have high expectations for our students to demonstrate the technical, academic, and employability skills they need for success. Experience tells us that once engaged in technical curriculum, many students begin to recognize the importance of their academic classes. Many also begin to consider college as a viable pathway for the first time.

We encourage our students to be prepared for entry into postsecondary opportunities, regardless of whether that is their immediate plan or not. Through our Citizenship Ready efforts, including working with career and technical student organizations, we help students learn the employability skills that businesses want in addition to their technical skills.

Third, we focus on career exploration opportunities and career guidance and counseling. Students too often pass through the educational system without a plan for their future. Meridian uses some of our Perkins funds for career exploration and guidance to ensure that all students, even prior to their enrollment at Meridian, can access information that will help them make smart career decisions, an area that we would like to see expanded in the use of Perkins earlier in the educational cycle for more career exploration.

Fourth, our coursework is relevant to students, and for many the opportunity to participate in CTE courses as a high school student is the hook that keeps them in school. Because our courses are typically project based and address real world problems, it's easy for students to find a purpose in the curriculum. For example, a student who aspires to be a labor and delivery nurse can apply their science, English, and math lessons in clinical rotations at their local hospital while still in high school.

For the vast majority of secondary students, the opportunity to participate in applied learning provides them with the engagement for success and has resulted in higher graduation rates on our campus, 98.7 percent, compared to the rates of our partner schools, ranging from 75.5 percent to 95 percent.

Finally, we work to ensure that there are clearly defined pathways for our students, or Programs of Study as they are defined in Perkins, from secondary to postsecondary education. In many curriculum areas, Meridian works with degree-granting institutions to ensure that our programs of study aligns with theirs. Students who graduate from Meridian have the opportunity to receive higher learning credit at those institutions and may earn up to half of the credits they need for a 2-year degree while still in high school.

Through my involvement in ACTE, I've had the opportunity to visit numerous other States and have discovered that my school is not unique. High-quality CTE programs are prevalent across this country and have success rates similar to ours. We need to shine a spotlight on these programs to make sure that all students are given the opportunity to learn in a way that meets their needs in an applied, hands-on learning environment.

At the Federal level, the reauthorization of Perkins is Congress' opportunity to ensure that these learning experiences are available to every student nationwide. As Congress considers reauthorization, I would like to encourage emphasis on the high-quality elements that have made Meridian a success, but in a way that allows local flexibility for each educational institution to meet the needs of their students and their local economic environment. We also need more resources to support more students. CTE should be recognized as an integral part of a robust education system, and Perkins funds should be available to all schools that are willing to embrace quality.

In closing, I would love to see CTE embraced as a way to engage students in a rigorous academic study and prepare them for postsecondary success, whether that takes them directly into a career or further study, and I strongly believe that this should be the new norm for our K-12 education system.

Again, thank you for the opportunity to provide testimony, and I look forward to your questions.

[The testimony of Mr. Major follows:]

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Oral Statement of Doug Major

Superintendent and CEO

Meridian Technology Center

House Education and the Workforce Subcommittee on Early Childhood, Elementary and Secondary Education

Improving Career and Technical Education to Help Students Succeed in the Workforce

October 27, 2015

Thank you Chairman Rokita, Ranking Member Fudge, and all the members of the committee for the invitation to be with you today to testify on behalf of Meridian Technology Center and career and technical education, or "CTE"—a topic that I am very passionate about.

Today I am representing Meridian Technology Center in north-central Oklahoma, where I serve as Superintendent. I am also a former national President of the Association for Career and Technical Education.

Meridian Technology Center is a publicly funded CTE school, and we offer opportunities in health, trade and industry, information technology, and STEM-related curriculum to a diverse range of both secondary and postsecondary students.

This morning, I would like to take a few minutes to highlight some of the hallmarks of our high-quality CTE programs.

First, our curriculum is based upon recognized industry standards and is guided by employers, trade association representatives, and community leaders working with our teachers and administrators. This year, 294 individuals are involved in our advisory committees, and give us in-depth input on curriculum, as well as commit to helping our students throughout the year by providing on-going support, job shadowing opportunities and on-the-job training placements.

In addition, Meridian is also involved in state-wide industry sector initiatives. For example, we participate in an aerospace consortium in which multiple technology centers contract with a liaison between our local schools and aerospace employers in the state. This ensures that our program offerings meet the needs of employers and students beyond our geographic boundaries.

Second, we have high expectations for our students to demonstrate the technical, academic and employability skills they need for success.

Experience tells us that, once engaged in technical curriculum, many students begin to recognize the importance of their academic classes. Many also begin to consider college as a viable pathway for the first time. We encourage our students to be prepared for entry into postsecondary

opportunities regardless of whether that is their immediate plan or not. Through our "citizenship- ready" efforts, including work with career and technical student organizations, we expose students to those employability traits that businesses want, in addition to technical skills.

Third, we focus on career exploration opportunities and career guidance and counseling. Students too often pass through the educational system without a plan for their future. Meridian uses some of our Perkins funds for career exploration and guidance to ensure that all students, even prior to their enrollment at Meridian, can access information that will help them make smart career decisions. An area that we would like to see expanded is the use of Perkins Funds earlier in the educational cycle for more career exploration.

Fourth, our coursework is relevant to students and for many, the opportunity to participate in CTE courses as a high school student is the "hook" that keeps them in school. Because our courses are typically project-based and address real-world problems, it is easy for students to find a purpose in the curriculum. For example, a student who aspires to be a labor and delivery nurse can apply their science, English and mathematics lessons in clinical rotations at their local hospital while still in high school. For the vast majority of secondary students, the opportunity to participate in applied learning provides them with the engagement for success, and has resulted in higher graduation rates on our campus—98.7% compared to rates of our partner schools ranging from 75.5 to 95%

Finally, we work to ensure there are clearly defined pathways for our students, or Programs of Study, as they are defined in Perkins, from secondary to postsecondary education. In many curriculum areas, Meridian works degree granting institutions to ensure that our programs of study align with theirs. Students who graduate from Meridian have the opportunity to receive "Prior Learning Credit" at those institutions and may earn up to half of the credits that they need for a two-year degree while still in high school.

Through my involvement in ACTE, I have had the opportunity to visit numerous other states and have discovered that my school is not unique— high-quality CTE programs are prevalent across this country and have success rates similar to ours.

We need to shine a spotlight on these programs to make sure all students are given the opportunity to learn in a way that meets their needs—in an applied, hands-on learning environment. At the federal level, the reauthorization of Perkins is Congress's opportunity to ensure that these learning experiences are available to every student nationwide. As Congress considers reauthorization, I would like to encourage emphasis on the high-quality elements that have made Meridian a success, but in a way that allows local flexibility for each educational institution to meet the needs of their students and their local economic environment.

We also need more resources to support more students. CTE should be recognized as an integral part of a robust education system, and Perkins funds should be available to all schools that are willing to embrace quality.

In closing, I would love to see CTE embraced as a way to engage students in rigorous academic studies AND prepare them for postsecondary success; whether that takes them directly into a

career or further study, and I strongly believe that this should be the new norm for our k-12 education system!

Again, thank you for the opportunity to provide testimony, and I look forward to your questions.

Chairman ROKITA. Thank you, Doctor.

Dr. Ricks, you are recognized for 5 minutes.

TESTIMONY OF DR. IRELENE RICKS, DIRECTOR, DIVERSITY IN LIFE SCIENCE PROGRAMS, KEYSTONE SYMPOSIA ON MOLECULAR AND CELLULAR BIOLOGY, SILVERTHORNE, COLORADO

Ms. RICKS. Good morning, Chairman Rokita, Ranking Member Fudge, and members of the subcommittee. Thank you for the opportunity to submit testimony to the Committee on Education and the Workforce and to share my perspective on improving career and technical education to help students succeed in the workforce. Specifically, I will discuss the role of the importance of technical education in the development of career pathways in nontraditional fields for underrepresented groups.

For more than 25 years I have served as an educator, advocate, and social science researcher. I currently serve as the director of Diversity in Life Sciences for Keystone Symposia on Molecular and Cellular Biology in Silverthorne, Colorado. My responsibility is to manage programs to serve underrepresented, or what we call UR students, postdoctoral Fellows, and early career scientists, including our flagship Fellows programs for UR assistant professors and research scientists. Many of the UR researchers who participate in our meetings and professional development programs come from public and private universities in States represented by members of this committee, including but not limited to institutions such as Emory, Stanford, the University of Pennsylvania, the University of Virginia, the University of Wisconsin, Madison, and Michigan State University.

I am also a member of the Board of Directors of the Augustus F. Hawkins Foundation, a public education and workforce foundation founded by and subsequently named after the former chairman of this distinguished committee.

In the past, career and technical education, or CTE, was associated with vocational education as a training platform for low-income and immigrant populations who had little access to more highly paid jobs that require formal postsecondary education. And in the past, CTE teachers were fairly low-salary workers. But according to 2012 Bureau of Labor Statistics, the median salary for CTE teachers was $51,910, placing those teachers squarely into the American middle class.

A 2014 U.S. Census report cited statistics that non-Hispanic Asians were most likely to hold a bachelor's degree or higher, followed by non-Hispanic whites. While 31 percent of Asians hold a bachelor's degree as their highest level of attainment and 18 percent hold an advanced degree, 20 percent of non-Hispanic whites hold a bachelor's degree and 12 percent an advanced degree.

However, Blacks and Hispanics of any race were most concentrated at lower levels of educational attainment. Only 39 percent of Blacks and Hispanics reported high school completion as their highest level of traditional educational attainment, and 13 percent of blacks and 28 percent of Hispanics or Latinos did not complete high school at all.

When you total this, nearly 41 percent of minorities, African Americans and Latinos, don't complete high school. These are shocking numbers for any Nation, but for the most industrialized Nation in the world, an inability to ensure secondary educational completion signals a critical failure in the system. If students are unable to master basic skill sets—that's reading, writing, computation, and critical thinking—it is far more difficult for them to secure and sustain gainful employment.

However, one of the advantages of CTE is its emphasis on technical training and soft skills development, such as interviewing techniques, job persistence, and interpersonal communication. Short-term education is a possible way to lift groups, including Latinos and African Americans with low levels of educational attainment, into better economic standing. Recent economic challenges have pushed many Americans towards short-term education options and this short-term education may pay off. CTE programs and the credentials that they offer provide access to higher wages, higher-demand jobs, particularly in emerging industry sectors. Almost 30 percent of people with less than an associate's degree, including licenses and certificates, earn more than many of the average bachelor degree recipients.

It is a fact that many Americans do not attend college. However, as a birthright, every American expects to have a job that allows them to feed their families, have access to affordable health care, and live with dignity. Fortunately, although CTE was once stigmatized and relegated to the dungeons of education, it is now considered as a viable opportunity for both nontraditional and college-bound students. In fact, just this year, the United States Presidential Scholars Program established a new category of outstanding scholars in CTE.

The resurgence of apprenticeship programs is a welcome addition to the CTE portfolio, and I am pleased that legislation such as the Apprenticeship and Jobs Training Act of 2015 are gaining currency. I thank the members of the committee for the opportunity to share a realistic perspective of how CTE can serve as a transformative toolkit for the education and workforce development of U.S. current and future labor markets. I look forward to your questions.

[The testimony of Ms. Ricks follows:]

STATEMENT OF IRELENE P. RICKS, Ph.D.
DIRECTOR OF DIVERSITY, LIFE SCIENCE PROGRAMS
KEYSTONE SYMPOSIA ON MOLECULAR AND CELLULAR BIOLOGY
SILVERTHORNE, COLORADO
BEFORE THE
EDUCATION AND THE WORKFORCE COMMITTEE
SUBCOMMITTEE ON EARLY CHILDHOOD, ELEMENTARY, AND SECONDARY EDUCATION
UNITED STATES HOUSE OF REPRESENTATIVES
114th CONGRESS, 1st SESSION
TUESDAY, OCTOBER 27, 2015

"Improving Career and Technical Education (CTE) to Help Students Succeed in the Workforce"

INTRODUCTION

Good morning Chairman Rokita, Ranking Member Fudge, and members of the subcommittee. Thank you for the opportunity to submit testimony to the Committee on Education and the Workforce and to share my perspective on "Improving Career and Technical Education to Help Students Succeed in the Workforce".

Specifically, I will discuss the role of the importance of technical education in the development of career pathways in nontraditional fields for underrepresented groups. For more than 25 years, I have served as an educator, advocate and social science researcher. I currently serve as the Director of Diversity, Life Science for Keystone Symposia on Molecular and Cellular Biology in Silverthorne, CO. My responsibility is to manage programs that serve underrepresented (UR) students, postdoctoral fellows, and early career scientists, including our flagship Fellows program for UR assistant professors and Research Scientists. Many of the UR researchers who participate in our meetings and professional development programs come from public and private universities in states represented by members of this subcommittee, including, but not limited to institutions such as Emory; Stanford; the University of Pennsylvania; University of Virginia; University of Wisconsin, Madison; and Michigan State University. I am also a member of the Board of Directors of the Augustus F. Hawkins Foundation, a public education and workforce foundation founded by and subsequently named after the former chairman of this distinguished committee.

FRAMING THE ISSUE

In the past, career and technical education (CTE) was associated with vocational education as a training platform for low-income and immigrant populations who had little access to more highly paid jobs that require formal postsecondary education. In the past, CTE teachers were fairly low salary workers, but according to the Bureau of Labor Statistics, in 2012 the median salary for CTE teachers was $51,910[i], placing those teachers squarely into the American middle class.

A 2014 U.S. Census report, The Survey Of Income and Program Participation Racial Inequality in Expanded Measures of Educational Attainment No. 268, examines education equity and the benefits of

CTE.[ii] Author Stephanie Ewert cites statistical evidence that Non-Hispanic Asians were most likely to hold a bachelor's degree or higher, followed by non-Hispanic whites. While 31 percent of Asians held a bachelor's degree as their highest level of attainment and 18 percent held an advanced degree, 20 percent of non-Hispanic whites held a bachelor's degree and 12 percent an advanced degree. Blacks and Hispanics of any race were most concentrated at lower levels of educational attainment. Thirty nine percent of blacks and Hispanics reported high school completion as their highest level of traditional educational attainment, and 13 percent of blacks and 28 percent of Hispanics did not complete high school.[iii]

When totaled, nearly half (41 percent) of minorities (African Americans and Latinos) don't complete high school. These are shocking numbers for any nation, but for the most industrialized nation in the world, an inability to ensure secondary educational completion signals a critical failure in the system. If students are unable to master basic skill sets (i.e., reading, writing, computation, and critical thinking), it is far more difficult to secure and sustain gainful employment. However, one of the advantages of CTE is its emphasis on technical training and soft skills development, such as interviewing techniques, job persistence, and interpersonal communication. In the same report, Ewert reveals an increase in vocational certificates among the adult population from 1984 to 2009. Short-term education is a possible way to lift some groups, including Hispanics and Blacks, with low levels of educational attainment into better economic standing. Recent economic challenges have pushed many American towards short-term education options, and this short-term education may pay off.[iv]

CTE programs and the credentials that they offer provides access to higher wage, higher demand jobs, particularly in emerging industry sectors. Almost thirty percent of people with less than an associate degree, including licenses and certificates, earn more than the average bachelor degree recipient.[v]

What are some of the types of jobs associated with CTE?

Many of the fastest growing professions in the U.S. are jobs associated with career and technical education, including health care industries. For example, many CTE positions are typically labeled as 'technician,' 'assistant,' or 'specialist.' In terms of science, technology, engineering, and mathematics (STEM) occupations – my area of professional interest - CTE trainees command competitive salaries, particularly in the biomedical sciences. Some of these positions have only minimal postsecondary requirements, such as a high school diploma or a two-year associate degree rather than a four-year bachelor's degree or higher, making CTE appealing to young professionals who have no interest in long term postsecondary training. In looking at the Census Bureau's table of fastest growing occupations from 2012 to 2022, there are positions that require only an associate's degree or less, such as diagnostic medical sonographers who earn as much as $65,860; dental hygienists with annual salaries of $70,210; and occupational therapy assistants at $53,240.[vi]

Well-intentioned arguments persist for U.S. students to attain bachelor's and advanced degrees (especially in STEM), and there are recent calls for every student to achieve at least two years of postsecondary education. These policy positions have merit but there is also little doubt that there is a sizeable percentage of the U.S. population who will not achieve these goals. However, what is more

practical, and perhaps more attainable, is the consistent incorporation of curriculum, like CTE in secondary and post-secondary institutions – and in fact middle schools, that provides an opportunity for students (both traditional and nontraditional) to gain hands-on experience acquire the in-demand skills needed in the workforce.

We are at a pivotal place in our nation's history in which the role of postsecondary education is no longer to simply provide elite access to liberal arts education. Rather, postsecondary education is far more intentional in the development of workforce pathways for a much broader population of the future U.S. labor market. Entrepreneurs are now being discovered at the precollege level[vii] and it is precisely this type of youthful brilliance that can most fully exploit the types of U.S. workforce skills integral to CTE.

Why is CTE important to the U.S.?

It is a fact that many Americans do not attend college. However, as a birthright, every American expects to have a job that allows them to feed their families, have access to affordable health care, and live with dignity. Fortunately, although CTE was once stigmatized and relegated to the dungeon of education, it is now considered as a viable opportunity for both nontraditional and college-bound students. In fact, just this year, the United States Presidential Scholars Program established a new category of outstanding scholars in CTE. The resurgence of apprenticeship programs is a welcome addition to the CTE portfolio and I am pleased that legislation such as the Apprenticeship and Jobs Training Act of 2015 are gaining currency.

I have worked with 'K through gray' STEM education and training programs. In many respects, the mentoring components of the science Fellows program that I manage are very similar in structure to apprenticeship programs. My Fellows are underrepresented (UR) early career scientists who are learning from more senior scientists (both UR and non-UR) who serve on the Keystone Symposia Scientific Advisory Board and Board of Directors. Mentor and Fellow dyads are working in similar areas of research related to cellular and molecular biology, including cancer, immunology, virology, and cardiovascular diseases. Like the member scientists at Keystone Symposia, the U.S. education system is as eclectic as the students and work force it serves. There are students and teachers from all over the world who are part of the national education landscape and that is part of the genius (and the challenge) of CTE in America. However, I have every faith that if it is given the funding support that is needed, CTE will thrive.

PROPOSED RECOMMENDATIONS

I have three recommendations to make to the subcommittee.

The first is that the Perkins Reauthorization bill should be passed at realistic funding levels to make career and technical education accessible to everyone who wants to make use of it, including nontraditional students (i.e., Adult students displaced workers, women, transitioning workers; returning citizens and immigrants with language deficits).

The second is that postsecondary institutions that are most likely to attract nontraditional and underrepresented students, such as community colleges and Minority Serving Institutions, must begin to employ learning platforms (especially online deliver systems) to retain CTE participants. The ability to engage CTE learners in the spaces and places where they are most likely to access CTE curriculum is critical. Laid off workers in need of retooling to work in different industries are served by CTE. Reentry populations need CTE to make a successful transition back to society. Honor students in secondary school who need to learn 'soft skills' to support high GPAs need CTE.

The third recommendation is that we dismiss anachronistic notions of what 'education' means and how it should be used to employ, sustain, and promote the social good. We can no longer afford to educate only an elite class of citizens. We are no longer in the world of Plato's *Republic*. We are in the 21st century and live in a global economy with stiff competition. It is time to ensure that human capital, regardless of race, gender, color or socioeconomic background is the most precious of our national commodities and must be educated and trained to meet our national goals. If we use all available resources to develop CTE to its fullest potential, we will go far in developing a high-skilled, national workforce that is capable of sustaining our competitive advantage in the global market.

CONCLUSION

I thank the members of the Committee for the opportunity to share a realistic perspective of how CTE can serve as a transformative toolkit for the education and workforce development of U.S. current and future labor markets. I look forward to receiving your questions.

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[i] Bureau of Labor Statistics, Occupational Outlook Handbook, Career and Technical Education, http://www.bls.gov/ooh/education-training-and-library/career-and-technical-education-teachers.htm

[ii] The Survey Of Income and Program Participation Racial Inequality in Expanded Measures of Educational Attainment No. 268, Stephanie Ewert, http://www.census.gov/content/dam/Census/library/working-papers/2014/demo/SIPP-WP-268.pdf

[iii] The Survey Of Income and Program Participation Racial Inequality in Expanded Measures of Educational Attainment No. 268, Stephanie Ewert, p. 6, http://www.census.gov/content/dam/Census/library/working-papers/2014/demo/SIPP-WP-268.pdf

[iv] Ibid., p. 3

[v] Association for Career and Technical Education. (2013). CTE Today![Fact sheet]. Retrieved from http://www.acteonline.org/factsheets

[vi] Bureau of Labor Statistics, Table 4. Fastest growing occupations, 2012 and projected 2022; http://www.bls.gov/news.release/ecopro.t04.htm

[vii] Under 18 and making serious $$$, http://www.cnbc.com/2015/07/27/8-young-entrepreneurs-making-serious.html

Chairman ROKITA. Thank you, Doctor.

Mr. Johnson, you are recognized for 5 minutes.

TESTIMONY OF MR. TIM JOHNSON, DIRECTOR OF GOVERNMENT RELATIONS, NATIONAL CENTER FOR CONSTRUCTION EDUCATION AND RESEARCH, BATON ROUGE, LOUISIANA

Mr. JOHNSON. Good morning, Mr. Chairman, Ranking Member Fudge, members of the subcommittee. My name is Tim Johnson, and I serve as senior director of governmental relations for the NCCER. Thank you for letting us participate in this hearing this morning.

NCCER is a not-for-profit 501(c)(3) educational foundation created in 1996 as the National Center for Construction Education and Research. It was developed with the support of more than 125 construction CEOs and various associations, including the Associated Builders & Contractors and the Associated General Contractors, and academic leaders, who united to revolutionize training for the construction industry.

Sharing the common goal of developing a safe and productive workforce, these companies and their organizations created a standardized training and credentialing program for the commercial and industrial construction industries. This progressive program has evolved into curriculum in more than 70 craft areas and a complete series of more than 70 assessments offered by 700 NCCER accredited sponsors in more than 5,000 training locations across the United States. The NCCER programs and processes annually engage more than a half a million—500,000—individuals.

Our Board of Trustees is a who's who of industry: ExxonMobile, Shell, DuPont, Bechtel, Fluor, Jacobs, Turner Industries, Performance Contractors, ISC Constructors. We also have board members from organizations—great organizations—like Skills USA and the Association for Career and Technical Education.

NCCER develops standardized construction and maintenance curricula and assessments with portable credentials. These credentials are tracked through our registry and allow organizations and companies to confirm the qualifications of their craft professionals and/or check the qualifications of possible new hires. NCCER's registry also assists craft professionals by maintaining their records in a secure database.

Our workforce development process of accreditation, instructor certification, standardized curriculum, registry, and assessment certification is a key component in the construction industry's workforce development efforts. NCCER also drives multiple initiatives to enhance career development and recruitment efforts for the industry, primarily through our Build Your Future campaign.

NCCER is headquartered in Alachua, Florida, and is affiliated with the University of Florida's M.E. Rinker School of Construction Management. And I will tell you, as a proud LSU Tiger, that's sometimes difficult for me to say.

The NCCER is a believer in and supporter of career and technical education. We believe that CTE is being transformed across the United States and great pockets of excellence have been created. Our challenge is to take these pockets of excellence and turn them into standard practices based on regional and specific needs.

We must place additional focus on what I call the Four P's of CTE: Public policy and public perception. The focus of my remarks today will be the critically important link between industry-specific needs and the education and training that CTE programs provide.

All of the NCCER programs and processes are driven directly by our industry partners. Our 70-plus craft curriculum titles are developed and regularly updated by construction industry subject matter experts. For example, our process identifies and brings together some of the premier electricians in the United States to originally develop and constantly update our electrical programs. We must ensure that what is being taught includes the very latest technology and practices in all of our programs. The NCCER does just that.

We are working in other ways to more closely link industry and education. We have developed the Construction Career Pathways initiative to provide guidance, best practices, and practical tools that can be used by industry and education to connect. This initiative has created an online connection map that allows industry representatives and educators to connect locally. By providing a fillable form to list contact information and needs, local teachers can find contractors in their area that are willing to help with their programs through presentations, curriculum guidance, and/or career events.

We also know that successful CTE programs must identify and employ skilled and capable instructors. I had the great pleasure of managing a large, privately funded craft training program for a number of years and I learned very quickly that instructors are the lifeblood of any training program. I say often that it is easier to turn a pipe fitter into a teacher than it is to turn a teacher into a pipe fitter. That means no disrespect for professional educators. I come from a family of them.

The key to CTE is to find skilled professionals who have some communication skills and provide them with the instructional training and resources they need. The NCCER does this through our Instructor Certification Training Program and our Master Training Program, and these programs ensure that individuals who instruct in our accredited programs have the craft and teaching skills to bring learning to life for their students.

In my home State of Louisiana, where more than $80 billion of industrial development expansion has been announced, the NCCER is helping to drive great collaboration between industry, the contractors who build and maintain their facilities, educational providers, State government agencies. The Louisiana Department of Education, K through 12, and the Louisiana Community and Technical College System are both accredited by the NCCER to provide our programs and processes.

The NCCER has developed into one of the premier workforce development organizations in the United States, and that success can be directly linked to the fact that we are and have been from our inception specifically driven by industry needs.

We look forward to your questions.

[The testimony of Mr. Johnson follows:]

TESTIMONY – UNITED STATES HOUSE OF REPRESENTATIVES COMMITTEE ON EDUCATION AND THE WORKFORCE

October 27, 2015

Tim Johnson
NCCER - Senior Director of Governmental Relations

Mr. Chairman and members of the committee, my name is Tim Johnson and I serve as the Senior Director of Governmental Relations for the NCCER. Thank you for allowing us to participate in today's hearing.

NCCER is a not-for-profit 501(c)(3) education foundation created in 1996 as The National Center for Construction Education and Research. It was developed with the support of more than 125 construction CEOs and various association, including the Associated Builders and Contractors and the Associated General Contractors, and academic leaders who united to revolutionize training for the construction industry. Sharing the common goal of developing a safe and productive workforce, these companies and their organizations created a standardized training and credentialing program for the commercial and industrial construction industries. This progressive program has evolved into curricula for more than 70 craft areas and a complete series of more than 70 assessments offered by over 700 NCCER accredited sponsors in over 5,000 NCCER-accredited training and assessment locations across the United States. The NCCER's programs and processes annually engage more than 500,000 individuals. Our Board of Trustees is a "who's who" of industry - ExxonMobil, Shell, DuPont, Bechtel, Fluor, Jacobs, Turner Industries, Performance Contractors, ISC Constructors. We also have board members from organizations like Skills USA and the Association for Career and Technical Education.

NCCER develops standardized construction and maintenance curriculum and assessments with portable credentials. These credentials are tracked through NCCER's Registry that allows organizations and companies to confirm the qualifications of their craft professionals and/or check the qualifications of possible new hires. NCCER's registry also assists craft professionals by maintaining their records in a secure database.

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Future initiative. NCCER is headquartered in Alachua, Florida, and is affiliated with the University of Florida's M.E. Rinker, Sr. School of Construction Management.

The NCCER is a believer in and supporter of Career and Technical Education (CTE). We believe that CTE is being transformed across the United States and great "pockets of excellence" have been created. Our challenge is to take those pockets of excellence and, based on regional and specific needs, make them standard practices. We must place additional focus on what I call the Four P's of CTE – PUBLIC POLICY AND PUBLIC PERCEPTION.

The focus of my remarks today will be the critically important link between industry's specific needs and the education and training that CTE programs provide. All of the NCCER programs and processes are driven directly by our industry partners. Our 70+ craft curriculum titles are developed and regularly updated by construction industry Subject Matter Experts. For example, our process identifies and brings together some of the premier electricians in the United States to originally develop and constantly update our electrical programs. We must ensure that what is being taught includes the VERY latest technology and practices. In all of our programs, the NCCER does just that.

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http://pathways.nccer.org/connection-map/

We also know that to have a successful and productive CTE program, we must identify and employ skilled and capable instructors. I had the great pleasure of managing a large privately funded craft training program for a number of years, and I learned very quickly that instructors are the lifeblood of any training program. I say often that it is easier to turn a pipefitter into a teacher than it is to turn a teacher into a pipefitter. That means no disrespect to professional educators. I come from a family of them. The key to CTE is to find skilled craft professionals who have some communications skills and provide them with instructional training and resources. The NCCER does this through our Instructor Certification Training Program (ICTP) and our Master Trainer Program. These programs ensure that individuals who instruct in our accredited programs have the craft and teaching skills to bring the learning to life for their students.

In my home state of Louisiana, where more than $80 billion of industrial development and expansion has been announced, the NCCER is helping to drive great collaboration between industry contractors who build and maintain their industrial facilities, educational systems, state governmental agencies, and private training providers. The Louisiana Department of Education (K-12), the Louisiana Community and Technical College System are both accredited by the NCCER to provide our programs and processes. A large number of contractor companies have sought and received accreditation from the NCCER. Major private training providers like the Associated Builders and Contractors have large training centers in Baton Rouge, New Orleans, and Lake Charles are accredited by the NCCER. The Louisiana Workforce Commission and the number one ranked public workforce development program in the United States for 6 years in a row, Louisiana FastStart, are linked to the NCCER through productive partnerships.

While my time limit will not allow me to elaborate, we must also continue to develop more systematic ways to move individuals from training directly into careers. In the construction industry specifically, we know we lose too many individuals in whom we have invested training resources.

The NCCER has developed in to one of the premier workforce development organizations in the United States and that success can be directly linked to the fact that we are, and have been from our inception, driven specifically by industry needs.

Questions for the committee members:

1) You mentioned the four P's, Public Policy and Public Perception. Give me some examples of efforts in those areas and specifically how those efforts have impacted CTE.
    a. Perception – Havard's Pathways to Prosperity / NCCER's Construction Pathways
    b. Perception – NCCER's BYF Campaign
    c. Policy – Recognizing high quality craft training programs as equivalent to registered apprenticeship
    d. Policy – Making it easier for skilled craft professionals to gain teaching credentials in K-12 and higher education
    e. Policy – Recognizing an industrial based credential or certification on an equal basis with college placement / AP
2) You have continuously made reference to the "construction craft professional." Obviously an effort to lift the image of the trades. Explain.
    a. Pipefitter will do as many math calculations in his workday as an engineer
    b. Story of the HVAC Technician
    c. Millwright and Neurosurgeon story

Chairman ROKITA. Thank you, Mr. Johnson. I appreciate that.

Let me start the subcommittee's questioning session by recognizing the chairman of the full Committee of Education and the Workforce, the gentleman from Minnesota, Mr. John Kline.

Mr. KLINE. Thank you, Mr. Chairman, for the courtesy and for the hearing.

I thank the panel of witnesses. You're a terrific, terrific panel of witnesses.

We have been grappling with how do we organize Federal efforts and how do we spend Federal money to good end, and what we've heard for a long time was that industry just couldn't find people with the skills that they needed, they just couldn't find them, and schools were providing skills that weren't needed. And so we went through quite a process here of looking at WIA, the Workforce Act, and we came up with WIOA. I don't know how we actually came up with that name, but we've got a new system.

So, again, all of this was designed, if we're going to put taxpayer money into this, and if we're going to do something to help people who need jobs and to help industries who need workers, it ought to work, it ought to come together and not be working across purposes.

So, Dr. Huftalin, you talked about partnering with local employers, and I think we're seeing evidence of that around the country. What kind of relationship do you have with these workforce development boards? Do you have partners there? Are you part of it? How is that working under the new rules?

Ms. HUFTALIN. Let me share, one of our examples is the Utah Aerospace Pathways Program which I talked about. And I think part of the beauty of that program is that we literally have those industry partners at the table with us, not only for curriculum, but we're in the process of planning and building a brand new career and technical education building. That building is located in the industry area, so we're literally right across the street from Boeing and several other aerospace partners, with the idea that these industry leaders can not only help us with curriculum and state-of-the-art training and equipment needs, but can also provide internship opportunities for our students and job-shadowing partnerships, so that it's a very applicable training that they receive right there in that kind of industry corridor.

So there's more than just curriculum that industry can be involved in. They can be involved in industry, partnerships, and on-the-job training. They've also been very, very helpful with us in the legislative session in trying to help our economic development. Our Governor understands the importance of this training opportunity for the Utah citizens.

Mr. KLINE. That's a good report. I like to hear that. But what about the workforce development boards? You go to a one-stop, Salt Lake probably has one, are you connected with that? Somebody goes in there, they are out of a job, they are looking for help, how do they get connected to you, Salt Lake Community College?

Ms. HUFTALIN. So we work with our division of workforce services quite carefully. Is that the work board that you're referring to?

Mr. KLINE. Yes.

Ms. HUFTALIN. We work with them quite carefully in terms of grants that they offer us to develop particular skill-based programs that they are seeing industry needing, and they've got underemployed or unemployed workers that need those jobs. They work with us to provide funding to ramp up specific state-of-the-art curriculum that those students can then benefit from and get into the workforce.

So there's a strong connection between what our local industry leaders are saying they need help with, what our division of workforce services is funding, and the training that we provide at Salt Lake Community College.

Mr. KLINE. Great. Thank you.

Dr. Major, basically the same question. What kind of partnerships does Meridian Tech have with the local workforce development agencies?

Mr. MAJOR. We have a very close working relationship with the workforce development board in our area and have a representative of our school that serves on the board. As a result, we're able to provide information to them about the opportunities for students at Meridian Technology Center, and we have several students who are funded through the workforce funds to attend school on our campus.

Mr. KLINE. Okay. Thank you very much.

I yield back, Mr. Chairman.

Chairman ROKITA. I thank the gentleman.

Ranking Member Scott, you're recognized for 5 minutes.

Mr. SCOTT. Thank you, Mr. Chairman. I appreciate the opportunity.

And I want to thank our witnesses.

I want to follow up with one of the questions the chairman mentioned. Ms. Huftalin, in working with the various agencies, how do you make sure that you're training the right number of people, not too many and not too few?

Ms. HUFTALIN. Part of what we've looked at with several different industry sectors is job projections, and within those job projections, jobs that are going to help our students get a livable wage or above a livable wage. So that we really target particular clusters, what is the job necessary, and how many of those are likely to be developing in the next projected, let's say, 2 to 3 years.

So for instance, in our new career and technical education building that we are creating, we've looked at about, maybe at the 28 programs that we're going to offer there, which are the ones that show a growing need, which are the ones that our industry, local industry leaders are saying they cannot fill. And we work with them to try to increase wages when necessary to make them a popular and livable wage, but we also then work with our faculty to develop the curriculum to allow the students to take up opportunities of that training.

Mr. SCOTT. Thank you.

Dr. Ricks, career training used to be known as vocational education, which traditionally was a dumping ground for people that weren't going to make it academically. Can you say a word about how important it is that the career training include the basics, so if a person wants to get into career training and decides, "Well,

maybe I want to go to a 4-year liberal arts college after all," that they are not left behind?

Ms. RICKS. It's actually quite critical that the basic skills are adopted in the CTE programs, because one of the things that employers are finding, and it doesn't matter what industry, including the biomedical sciences, is that students are coming into the workforce very poorly prepared to write, to think critically, to be creative in the ways that they approach a problem.

So CTE curricula typically offer those kinds of opportunities for their participants. So they build in on-the-job training, so they give them scenarios, they set up case studies for them to learn how to learn on the job. And I think that that is critical. I think it's critical for everyone.

Even in the industry that I've been working in for the last 20 years, with biomedical science researchers, those skills are still very important for them. Whether they're going to NIH, whether they're going to the National Science Foundation for research grants or to conduct research, those are critical stills, and CTE provides those skill sets.

And I think we have typically sort of divided students based on who's going to college, who's not going to college, what kinds of skill sets are needed. And that's really an artificial construction, because everyone needs the same skill sets. Everyone needs to know how to think, how to read, and how to write well.

Mr. SCOTT. And so if someone gets in a career track, it's never too late to switch back to an academic track and go to college.

Mr. Johnson, did you want to comment?

Mr. JOHNSON. I did. Thank you, Mr. Scott. Because I think that's part of this public perception that we have to deal with in CTE. We used to think that, you know, if you're bright you go to the 4-year university, if you're not you go into some other track. I will tell you that a good layout pipe fitter will do as many mathematic calculations in his or her workdays as an engineer will do, and they are no less critically important.

And so we've got to change that perception, and the CTE programs that provide those basic skills have to do it.

Two things. One is that we use terminology often as well. We refer to CTE track programs as middle-skill jobs. I can tell you that a highly trained combination welder does not have middle skills. That individual has very high-level skills. And so just the words that we use sometimes we need to think about in terms of the perception of career and technical education.

Mr. SCOTT. Thank you.

Dr. Major, you alluded to the 2-plus-2 program. Can you say a word about that? I think you have commented on the others. I don't have much time left, so you can take the rest commenting on those two.

Mr. MAJOR. Okay. I think too often students who enroll in career and technical education are viewed as not going to college. What we find is that many of our students through career and technical education decide that college is the best path for them.

And so we try to make sure that our students before they leave us are ready for that, and so we not only expect them to learn the

technical skills, but we also focus on numeracy, literacy, and critical thinking.

Most students who enter into a community college in Oklahoma are 27 years old, which means that they didn't go there directly from high school, but at some point they made the decision to go back. Career and technical education needs to prepare those students for when they are ready to go into a college pathway.

Chairman ROKITA. Thank you. The gentleman's time has expired.

The gentleman from Pennsylvania is recognized for 5 minutes.

Mr. THOMPSON. Chairman, thank you. Thank you for this hearing. Career and technical education is obviously something I'm very passionate about, and I happen to believe that of the domestic issues that this Nation is facing economically, a robust investment in career and technical education training is a solution to many of those problems.

Thanks to the members of the panel for your experience, your passion, and your leadership. On behalf of the Career and Technical Education Caucus, which I co-chair with my good friend, Jim Langevin, who submitted something for the record already, despite some difficult economic times around here, we've actually—and I think it is an acknowledgement of the importance of career and technical education—we've actually gotten a plus-up. You know, not much, $52 million, it's kind of minimal in the scale of a $1.3 billion program, but any kind of a plus-up is a sign of recognition of importance, I think.

Dr. Major, we all know it's important to ensure that parents and students are receiving the necessary information about the vast opportunities that career and technical education can provide. In your testimony, your written and your verbal testimony, you talked about more flexibility, the use of Perkins money earlier in education to pursue career exploration. Can you put a little more meat on the bone of that, just a couple of examples of what and when do you think would be effective?

Mr. MAJOR. I would like to see more flexibility for us to use Perkins funds in the middle school grades with younger children to help expose them to career options so that they can determine the best educational pathway to get to their chosen profession, recognizing at that time in their life it's probably going to be more an affinity toward an industry sector rather than a specific career.

Too often children in the middle school aren't able to see how that formal education will affect their future. And so if we have the flexibility to provide more career exploration, more career guidance in those middle school levels, I think in the long run it will help with our high school success and high school graduation rates.

Mr. THOMPSON. I couldn't agree more. Long before I came to Congress, I worked on workforce development issues, and it amazed me that that time period of middle school was where we really need to zero in on, as kids are exposed to so much more today.

Dr. Ricks, you had noted that, and I'm going to quote you from your testimony, "Fortunately, although career and technical education was once stigmatized and relegated to the dungeon of education, it is now considered as a viable opportunity for both traditional and college-bound students." I certainly agree with you on

that, I'm excited about that, but I don't think we've gotten everybody yet.

So within your research, have you really looked at that—because I feel that there's still a stigma out there among parents, and parents are the leading—I mean, they're steering the decision making, they're exposing the kids to opportunities. Has your research found anything there and anything that would be helpful for turning that stigma around?

Ms. RICKS. Well, one of the things that I've discovered is that guidance counselors need to be approached. And I think that we need to look at it in a collaborative way with parents and guidance counselors working together to talk about CTE and the benefits of CTE and looking at the professional association of guidance counselors. I attended a meeting, I think it was last year, here in Washington, and they were talking about the role of guidance counselors and steering students away from CTE and how they need to be brought into the fold. Because surprisingly, many guidance counselors aren't that aware of CTE. They still call it vocational education. They still see it as a two-tiered system. And so they tell their college-bound students not to go into CTE coursework.

So I think that there can be more effort made in the school.

Mr. THOMPSON. With the guidance counselors?

Ms. RICKS. Absolutely.

Mr. THOMPSON. Now, we have language within the Student Success Act that, hopefully, will be going to conference soon with ESEA that really looks at parental engagement centers. Is there anything the panel, any of the panelists have anything in terms of thoughts in terms of how do we get to the parents and help change that stigma, that these are great paying jobs, they are low debt coming out? I mean, the facts are all on our side, I think, we just need to communicate.

Dr. Huftalin, you have 30 seconds.

Ms. HUFTALIN. Congressman, If I can just share, two things I would say. One of the things is marketing around the wages. I think parents are very, very unaware of the wage data associated with many of our career and technical education fields and the kind of career their son or daughter can have in that career. So wage data I think is critical.

The other thing I would share is I had no idea what happened behind the doors of the Boeing plant. And we went on a tour of that Boeing plant and watched them make that horizontal fin. And I am telling you, if we had sixth and seventh graders and their parents walking that floor, that would shift dramatically, because it is impressive, it is high engineering, it's high technology, and it's very, very exciting.

Chairman ROKITA. The gentleman's time has expired.

Mr. THOMPSON. Thank you, Mr. Chairman.

Chairman ROKITA. I thank the gentleman.

Ranking Member Fudge, you're recognized for 5 minutes.

Ms. FUDGE. Thank you very much, Mr. Chairman.

And, again, thank you for your testimony.

Dr. Ricks, you stated that 41 percent of minorities do not complete high school, which in my opinion highlights the disproportion-

ately negative effect education policies have had on Black and Hispanic students.

The racial divide is compounded when funding streams for hands-on, short-term education and career training are cut. We do know that funding for Perkins has declined by 24 percent since 1998, and in particular because of sequestration over the last few years.

Can you tell me how these cuts have affected underrepresented students in CTE programs?

Ms. RICKS. The underrepresented students, because of some of these challenges with the budgets and with the lack of parental involvement and guidance from the guidance counselors, has resulted in fewer students of color participating in CTE, and that's a problem. And I think that we need to rebrand CTE. We have tried to change the name CTE rather than voc ed.

So I think that we need to consider creative ways. And I go back to what I said earlier about the role of CTE in stimulating creativity and critical thinking in our students. We need to do the same here in Washington and in all the other policy institutes that look at education in a very serious way.

And I think what has happened with underrepresented students is that they become even more discouraged. And one of the things that we study as social science researchers in education is looking at the emphasis on role modeling. The less likely you are to see yourself in a particular role, the less likely you are to participate in that role. And so that's what's happened.

Ms. FUDGE. Thank you very much.

Mr. Johnson, can you tell me about the availability of CTE instructors and what we can do to help support craft professionals to become CTE teachers?

Mr. JOHNSON. Well, I think there are probably a number of things, Ms. Fudge. I will tell you that if you look in the industrial sector, particularly along the Gulf Coast, one of the major struggles that we have is that there is so much expansion going on and there is such availability for high-wage jobs that many instructors who may have retired and gone into CTE have decided to go back on their tools because they can simply make more money.

And so a part of it is helping to identify those existing craft professionals, those retired craft professionals who might be willing to be instructors. But certainly being able to pay them at a rate that makes it attractive to them is a critical part of that effort. We have programs in place to begin to help us identify those individuals who might be interested in becoming instructors now, but certainly the pay rate is one of the issues that we face.

Ms. FUDGE. Thank you very much.

Dr. Major, can you provide us some insight as to how CTE programs can more effectively reach secondary school students and engage them in a career path?

Mr. MAJOR. I think one of the issues we face goes back to the guidance and the perception of who CTE is for. And it is true that at one point in time CTE was seen as the educational system in which students who weren't going to college could be successful. And that is true, but more and more students are leaving our school and going into a college pathway.

Like the terminology of middle skills, I think we need to reshape postsecondary education and be more cognizant of their many forms of postsecondary education, one of which is a colleague degree pathway. But through apprenticeship, through licensed trades, through on-the-job training, postsecondary education is a successful route to entry and a shorter route to entry for many lucrative careers other than college.

Ms. FUDGE. I certainly hope you all are successful, because the young people I know don't know how to do anything with their hands. So I'm hopeful that we'll still have electricians and plumbers and brick masons and all those people.

And with the last about 40 seconds that I have, Dr. Huftalin, you have seemingly been very successful at trying to predict the future and know what job skills are going to be needed. How do you do that?

Ms. HUFTALIN. I'm not sure I can take that credit one bit. I do know that we're trying diligently in Utah to get better relationships with our job forecasters, with the folks that look at the kind of tomography of the State, and to use that in a much more essential way.

I don't think we've mastered that yet, honestly, but I do think we're being very clear about looking at projected jobs that are going to be available and then making adjustments to meet that demand. That is just data that we've had for a long time, but we haven't shared it regularly. I think our relationship building and our collaboration is stronger than ever, and that needs to continue to improve.

Ms. FUDGE. Thank you. I yield back.

Chairman ROKITA. I thank the gentlewoman.

The gentleman from Georgia is recognized for 5 minutes, Mr. Carter.

Mr. CARTER. Thank you, Mr. Chairman.

And thank all of you for being here. This is very informative, and I appreciate it very much.

Dr. Huftalin, there's a technical college in my district, Coastal Pines Technical College. It operates a program that's called Move on When Ready. It allows students, high school students, to actually take classes at the technical college to get credit for the classes for a college degree as well as for their high school degree. It comes at no cost, not even the books are charged for. And it's very well attended, very well participated in. Is this the type of program that you see implemented anywhere else?

Ms. HUFTALIN. We have a very similar program in the State of Utah called Concurrent Enrollment. And so students can in their high school journey take both general education and/or CTE classes as a high school student and earn high school credit and college credit simultaneously. And that's very well adopted across the State of Utah.

We look at curriculum carefully. And I think we've been much more willing to kind of look at the pathways, and where there are no pathways pull back on certain courses, and where there could be stronger pathways be very intentional about putting additional courses in the high school to allow students to articulate into an associate's degree when they come to the college.

Mr. CARTER. Great.

Let me ask you something. The way that these funds are being appropriated right now is through a formula system. If we were to go to some type of competitive grant system, do you see that working? Do you think there would be problems with it?

Dr. Major, I see you.

Mr. MAJOR. I think if you move away from a formula process to a grant, you're going to remove the opportunity for many students in the United States to have access to career and technical education. The Perkins Act originally was that act that allowed access by all students to career and technical education. If you go to a competitive grant, you're going to have some that have access and some that don't have access.

Mr. CARTER. Anyone on the panel disagree with that?

Do you think that a combination of both might work? I mean, obviously, if we have a program like this Move on When Ready that we're very proud of in the State of Georgia and that has proven to be very beneficial we would want extra funding for something like that.

Mr. MAJOR. And I think history will tell us that we've the basic grant, but then we've also had some additional moneys for innovative programs. And I think that those innovative funds have started some really great movements in the United States around career and technical education. So I think if we do something competitive, it needs to be in addition to the basic grants.

Mr. CARTER. Okay.

Mr. Johnson, you mentioned wage disparity in the words that we use. I'm always reminded, when I was in the Georgia State Senate I chaired higher education, and one of the things that we always stressed, technical colleges. And we changed it to technical colleges.

Is that the case with all of you? Is it now a college or is it still technical school.

Mr. JOHNSON. I think that's becoming more universal, the technical college. But we think about that as well. We talk about at the technical college there are four credit courses and, quote, "noncredit courses," right? And so if I'm in an entry-based certification and I'm going through the process and you tell me that my course is not for credit, what kind of imagine does that display?

So those are the kind of terms, the kind of words that I think we need to think very carefully about and look to change how we characterize career and technical education. Changing from, you know, vo-tech to technical college is a very critical thing that we do, but we must continue that process so that we look at it differently.

Mr. CARTER. You know, again, one of my favorite stories about the wage disparity is about the doctor who calls the plumber in on the weekend for an emergency. And you've heard this.

Mr. JOHNSON. Yeah.

Mr. CARTER. Anyway, the plumber's working on the plumbing. The doctor looks down and says, "How much are you making per hour for this emergency call?" He says, "I'm making $150 per hour." And the doctor says, "Wow. I'm a doctor and I don't make that much." And the plumber looks up and says, "Yeah, I know, I didn't make that much when I was a doctor either."

Mr. JOHNSON. Exactly right.

Mr. CARTER. But it is true. The last thing is, are you working with the businesses? One of the things that we have a problem with in Georgia that we're really concentrating on is identifying those jobs that are going to be needed and trying to fill that void, if you will, in making sure those personnel are available. For instance, we have two nuclear plants that are being built right now, and we're having welders. And we want to make sure those welders are available, that we're not having to go out of State to get them, that we can provide them there in State.

Mr. JOHNSON. We work very closely with industry through the NCCER and most of our programs also do. It's critical to make that connection. If we think about projecting jobs that will be available, as you are doing in your State, we've got to get those employers engaged at a high level.

I will tell you that I've been in the workforce development game for over 20 years now, and I think we've done more to change perception and more to connect employers with education over the last 3 or 4 years than we did in the previous 15 or 16 that I was involved in it.

So I think we're headed in the right direction. There's more work to do, but any time we can link an employer directly to a—

Chairman ROKITA. The gentleman's time has expired. I thank the gentleman for his time.

Ms. Bonamici, you're recognized for 5 minutes.

Ms. BONAMICI. Thank you very much, Mr. Chairman.

And thank you to the witness. This is such an important conversation. As, we know that the CTE courses can help prepare students to succeed in careers, but also on college campuses, as we've discussed, and help them be prepared.

But that isn't all. The students also learn the soft skills as well as the hard skills, and I know Dr. Ricks mentioned this, like teamwork and the ability to communicate. And that serves them throughout their lives, regardless of where they end up in a career.

The good-quality CTE classes accomplish this while also preparing students to do well academically in postsecondary education as well as the workforce. And I really want to emphasize, because we've been talking a lot about how we message this and what's happened in our conversations, the "E" part of CTE stands for education. So we're not trying to convert education into job training. This is about educating students to be prepared for whichever path that they take.

And I want to mention, we're talking about success stories, I have several from the district I represent. Sherwood High School in Sherwood, Oregon, they have an all-girls welding class, fills up every year. They also have a program where the students build a house. They take architecture classes, interior design, environmental science and construction, and then they build and sell the house. It's a great experience. And they have a mobile fab lab where the teacher has an RV and he drives around, not just to other schools, but to other districts to help inform their teachers about what they can do.

But the tremendous benefit, and I've seen and talked with the students who participate in these classes, that they get inherent

benefit from making something tangible. And those lessons are really important. Newberg High School in my district has a whole range, from culinary classes to CAD labs. And when I was out there, they really emphasized the importance of the Perkins funding. Yamhill Carlton High School, which is down in wine country, not only do they have a manufacturing class with a local polymer manufacturer, they have also started a viticulture class at their high school.

And then there are courses that continue at the community college. Portland Community College has one of the Nation's top job training programs as recognized by the White House, where they use an innovative approach to help unemployed workers complete short-term stackable credits that give them skills.

So those are just a few of the examples.

And Dr. Ricks, I mentioned the all-girls welding class at Sherwood High School and their homebuilding class. Now, that district has about 5,000 students. This beautiful pen you might have noticed because we're in a small room today, that wood pen was made by a student at Gaston. They have 564 students total in their entire school district. When their teacher gave me this pen, he talked about what this means to the students to actually make things and how engaged they are. Warrenton High School, over on the Oregon coast, has only 285 students, but they run a fish hatchery at their school and have an aquaculture program.

So, Dr. Ricks, how do you bring high quality academic programs, especially to rural and underrepresented communities? And I share your concern about—and Dr. Major and all of you on the panel—about what a shift to competitive funding would mean. But how do you really bring those programs around the country to rural and underrepresented students as well as in large urban districts?

Ms. RICKS. Well, it's not easy. One of the things that I've done in the past, I've worked in different organizations that have tried to especially reach out to rural and underrepresented communities. When I was at NOAA, I was on a contract with the Office of Education, and they have a mandate to try to do that. When you talked about the aquaculture and fisheries, I thought about NOAA and how they've been doing that for some time with K through 12 students.

And there's a number of activities that the different Federal agencies have been engaged in looking at how to build interest, especially because I come from, you know, the STEM background, looking at how science, technology, engineering, and math can be integrated to grow interest in—

Ms. BONAMICI. Thank you. I'm sorry to interrupt. I want to get another quick question in.

Ms. RICKS. Oh, okay.

Ms. BONAMICI. I want to talk about STEAM, integrating art and design into STEM.

Dr. Major, you really talked about the students who consider college as a viable pathway once they get into a CTE course or program. Can you discuss what an effective CTE program can do to make sure that students do receive a well-rounded education that includes language, art, science, math, other subjects?

Mr. MAJOR. I think we made to make sure that our CTE programs incorporate the use of high-level academics. Through project-based learning students have to do research. The house that they build, they have to do research, they have to be able to read technical documents. So we need to encourage their success in those academic studies in addition to the career and technical education studies. And that comes as a part of the definition of a high-quality CTE program. And we talk about accessibility, but we also need to hold programs accountable, and accountable for offering high-quality programs to the students.

Ms. BONAMICI. Thank you. I see my time has expired. Thank you, Mr. Chairman.

Chairman ROKITA. I thank the gentlelady.

The gentleman from Wisconsin is recognized for 5 minutes.

Mr. GROTHMAN. Okay. First of all, I'd like to make a comment. I can tell you, I'm 60 years old, I think in my lifetime I have never felt that people look down on, or I think Congressman Scott used the word as tech schools as being a dumping ground. There may be some segments of society where they are bigoted or, you know, snobbish people look down on people who didn't go to a 4-year degree. I think among me and my peer group, when I was coming up we never had that idea. And I think it is unfortunate that we had people here today use those terms.

But a question for I guess any one of the four of you. One thing that I find in my area is that sometimes when I talk to people who run the local tech schools they talk about people with literally a college degree going back. I know Dr. Major talked about people being an average age 27. I'd like to you to comment as how often you do see people who have a full 4-year degree and eventually realize that they got something without a great deal of value and come back.

Mr. MAJOR. I'd like to respond to that. We're seeing more and more students coming back in our postsecondary programs who do possess a degree. And what we're finding is that the rate of change in industry is so significant now that the jobs that they prepared for when they were in high school don't exist. And no matter what we do, we need to continue to learn. And there are specialized skill sets that we're able to offer through our work with business and industry that allow adult students to come back regardless of whether they have a degree.

We recently worked to help recruit an aerospace manufacturer to our district. When they arrived in our community they needed employees with a diverse set of skills and we weren't able to identify those. But working with that company, we put specific educational programs in, focused on their job descriptions, so that students could come back and gain the knowledge and skills they need to be successful for that particular company.

Ms. HUFTALIN. Congressman, I'll just share that we are also seeing a trend in students that have a bachelor's degree or beyond and then are retraining later in life and coming back and finding a new field that they never even knew existed. I can tell you that our dean of the School of Technical Specialties is with us this morning. His son is a great example of that. Bachelor's degree in history, returned to our Non-Destructive Testing program 2 years ago, and is

now very well employed in the non-destructive testing field, a field he didn't even know about as an undergraduate when he attended the University of Utah.

Mr. JOHNSON. I would just say quickly too, Louisiana Community and Technical College System is seeing that in a big way. Process technicians are in huge demand for industry in Louisiana. That's a 2-year associate degree generally. They created a program within the Community and Technical College System that says that if you have a bachelor's degree you can now come back and get that associate degree in 16 weeks because of the other academic accomplishments that you have. So innovative programs like that that allow those bachelor degree individuals to come back and get their training quickly.

Mr. GROTHMAN. Okay. One more question. One thing that people always are concerned about, or at least I feel contributes to the high cost of education today, is the number of nonteaching personnel hired by all institutions of higher learning.

One of the things I wondered about, I notice—well, Dr. Ricks, a couple comments on your testimony. First of all, you say we can no longer afford to educate only an elite class of citizens. That's kind of a damning statement about America and I don't think that's been true throughout my lifetime. Do you really believe in America—or when was the last time you really feel we only educated an elite class of citizens in this country?

Ms. RICKS. Well, when you look at the numbers of the students who actually graduate from college, it's typically, in the Department of Education NSF report, it's typically students who can afford to go. And because income has been a barrier, it has become—and it hasn't always been—but it has definitely become a system that discourages students who cannot afford to go. They cannot afford to persist beyond their first year of undergraduate education. And I'm talking about students who did not come in with merit-based or need-based scholarships, just students who are just, you know, your average student trying to get into college and graduate. So those numbers are—

Mr. GROTHMAN. Let me cut you off. You're saying something I didn't expect. In other words, you're saying right now it's harder to get through college if you're kind of middle class as opposed to the people who qualify for the Pell Grants? Is that what you're telling us?

Ms. RICKS. Not in—well, there's two different issues. You have the students who come in need-based, and then you have the students who don't anticipate the need that they will require to graduate. And so there's a slight difference there. So you can have students that have received financial aid that still there's a gap, there's a huge gap between what they receive and what they need in order to fully participate in the college experience. And I'm not even talking extracurricular. I'm talking about when—

Chairman ROKITA. The gentleman's time has expired.

Thank the gentleman.

Ms. RICKS. Sorry. I talk too much. Sorry.

Chairman ROKITA. Mr. Takano, you're recognized for 5 minutes.

Mr. TAKANO. Thank you, Mr. Chairman.

I want to talk about this idea of the people coming back at age 27. I just spoke to someone today who grew up in a household with a mother, a single-parent household. The mother was on food stamps. He worked as a box boy full time. Could have qualified for the Pell Grant, all these things early on, but worked his way up to management in this food supermarket area. Hard-working person, working full time, had a kid. Decided that he couldn't stay up all night dispatching the trucks in the morning, sleeping all day, and being a good dad. So he wanted to back and get his education. So he never used the Pell Grants, worked his way up. You know, did all the things. I mean, he was impelled.

I'm wondering how many of those kind of folks do we have coming—you know, they don't even have their first bachelor's, but they're going to come back and try to earn their first degree. But for him to leave the workforce, really, we know that going to school full time is probably a good idea for many people in order to complete their programs.

I mean, how big a segment of the society is this, and do we need to do something about it?

Ms. HUFTALIN. Congressman, I will share with you that one of the difficulties we have at the community college is that many of our students work. Seventy-four percent of our students work while they're attending. And of those 74 percent, 40 percent work full time. So they're working full time and they're trying to come to school. And very often they choose, because of the realities of that schedule, to go at a part-time load, take 9 credit hours.

Mr. TAKANO. Well, here's the thing, though. I'm wondering how this person got this huge debt, right? I mean, he would have qualified in the front end if we had gotten him in a place to go to community college and then transfer or even just go from community college into the workforce. But he would have qualified for those all those grants, but he worked and worked and worked and then worked himself up to a level, then decided to go back to school, decided, oh, in order to do this I got to take all of these loans to be able to go to school full time.

So the choice is that you work part time, maybe not be as effective in the school as a student. Or at that point in your life you don't qualify for anything because your income was too high, right? But his beginnings were, you know, very, very humble.

So I'm wondering, I have to imagine there's a lot of people in our country that are examples of that. You know, worked really hard, his mother was on food stamps, needed to get a job, went through various levels of employment and got fairly well paid. But then in order to go and get an education, to get a different track, there's nothing for him. I mean, he's either got a choice of working full time and going to school in a job that he's up all night, he really can't go to—I mean, this is a very specific example.

But I'm thinking there's a lot of people in that 27-year-old, 28-year-old category that may have already gotten a degree, but many of them who haven't even gotten the first degree, but we don't have an affordable way for them to go back and get training or CTE education. What are your thoughts on that?

Ms. HUFTALIN. I guess my response to that would be that that's part of the reason why as a community college we keep our tuition

and fees as low as possible. I mean, literally as a returning adult, even though you may not qualify for Pell, you can attend—you can go for a year of college with us full time and only pay $6,000.

Mr. TAKANO. Let me switch tracks a little bit. Let's talk about what it means to be college and career ready and how we can improve that transition into a training, you know, either a CTE program or a transfer program. I noticed that you have a lot of concurrent enrollment programs, you have early college.

What could the Federal Government do to help make this—I just spoke to a superintendent who's reduced his remediation rate by 50 percent. What can we do to help you all do things like that, reduce your remediation rate, get the community colleges to communicate more with the high schools and work together?

Ms. HUFTALIN. I think part of, for my response, it would be that continue to hold us responsible for having secondary partners very, very deliberately and very intentionally. We have to be able to work with our superintendents and our districts and the faculty there have to work with our faculty to identify what are the math competencies necessary to move without any kind of problem—

Mr. TAKANO. So high school faculty knows, has a clear idea what they need to do to get the kids prepared—

Ms. HUFTALIN. Exactly.

Mr. TAKANO.—for both career and—

Ms. HUFTALIN. And the writing faculty and the communication faculty.

Mr. JOHNSON. SkillsUSA students graduate at a 95 percent rate. Those individuals who are involved in SkillsUSA programs, those CTE programs across the United States, their graduation rates are up at 95 percent. It's a proven winner.

Chairman ROKITA. The gentleman's time has expired. I thank the gentleman.

The gentleman from Virginia is recognized for 5 minutes.

Mr. BRAT. Thank you, Chairman.

Thank you all for what you do. I just met with all my career and technical folks a couple weeks back. I've been working in this Virginia State Senate with some of the leaders there for 7 or 8 years. I was a college professor for 20 years. Went to seminary before that. I don't know what went wrong. So I've been in education my whole life.

Congresswoman Bonamici says, "I know what you're going to ask every time," because I ask the same question every time one way or the other. But my challenge to you, you're all doing the Lord's work, et cetera, but there's a problem in K to 12, and people have been asking, the parents, and there's all this inside baseball up here, all these terms, and, you know, like we're going to fix this through policy. And so we're spending $13,000 a year per kid for 13 years and they don't know what business is when they get out. It's unbelievable.

So you guys are saying let's find some skills for them. Well, I don't blame you, right? So if you're coming out and you don't know what a business is and you don't know about free markets and economics or any of that, then you're doing the next best step. Let's get these kids some skills and fit them into empty sectors where there's some jobs, right? So I get that.

I'll just go through all for you real quick. Just how can we start to teach kids about free markets and get them excited about business? They're going to spend every waking hour of their life in business. And yet sometimes we tell them business is bad, right? So the rest of your life, all your waking hours, is going to be spent doing something morally bad, right? It's no wonder the kids look at you and go, "I don't get it."

My Governor in Virginia is on the other side of the aisle. He's going around the world doing great stuff. He's getting jobs from China and India and all this kind of stuff. And yet we don't work together to convey that energy to the kids. This is the way it works up here in the big leagues, right? All the business people know what you have got to do to make money and be successful. But we don't give those secrets to the kids.

And I'll just put on my econ hat, did economics for years. The industrial revolution skills, they've been with us forever. They didn't cause modern economic growth, I want to be clear on that. And you can go look at a bipartisan author, favorite of mine, Deirdre McCloskey. She's got a six-volume set out, she's a Nobel-caliber economist, and I'd recommend that to all of you, on why markets matter more than all these other subsets, right, education, skills. We have to do all of the above, but if you don't have working markets for kids to plug those skills in, if you go to a top-down communist society, you got skills, you're not going to get growth and kids won't end up rich.

What can we do to pump up and motivate the K to 12 system so that the kids are more prepared for the skills when they get to you? And I'm not leaving you enough, but if you can just all weigh in as you see fit.

Mr. MAJOR. I'll start with that. And one of the opportunities we have in career and technical education is we hire teachers that have the technical content to come into the classroom and help them become teachers. When you look at your traditional academic teacher, and I had the greatest ninth grade English teacher in the world, but her whole professional experience was being a teacher. She liked school so she became a teacher. And so she had little knowledge as to what business and industry needed from students.

So I think a way to address that is to provide professional development opportunities for teachers, provide externships for teachers that allow them to go out and interface with the business community so they can help make that connection between the academic content and the world beyond high school.

Mr. BRAT. Good. Anyone else?

Ms. HUFTALIN. I will just share that one of the things that we built into the Utah Aerospace Pathways Partnership was that our professional development in the secondary schools, the teachers had to be part of that training. They had to go to Boeing, they had to go to Hexcel, they had to be part of that so that they could be on the floor in the environment understanding that particular industry much more clearly than if they would had just been in kind of the shelter of their own secondary school.

Ms. RICKS. I was going to say some of the larger corporations have been doing that for some time, like IBM. Their employees give

back and they get community service credit for going into the local schools and talking about business, talking about their industries.

Mr. JOHNSON. I would recommend that you go the NCCER's career awareness site, BYF.org, that's Build Your Future. There are a ton of resources there that do exactly what you're talking about.

Mr. BRAT. Thank you all very much.

Chairman ROKITA. The gentleman yields back.

Ms. Clark, you're recognized for 5 minutes.

Ms. CLARK. Thank you, Mr. Chairman.

And thank you to all the panelists who are with us today for this really interesting and important discussion.

I had a question maybe for you, Mr. Johnson. You were talking about students coming back who maybe had the BA and you're quickly allowing them to get that associate's degree. How do you find the balance between helping business fill that short-term talent pipeline and the longer best educational goals for our students, maybe sort of the reverse of what you were describing? How do we find that balance?

Mr. JOHNSON. Well, I think part of it is having a clearer recognition about career paths and what's available. We've created a culture that says if you want to be successful you graduate from high school, you go directly into a 4-year university, you get a degree, and you go to work. And I think that there are so many more pathways.

We talk about electricians all the time. What if a young man or young woman is thinking that maybe they would like to be an electrical engineer at some point? What better preparation could they possibly have than to get into a CTE program and become a practicing electrician for a few years, save their money, understand what it's like to work in the field, then go back in to pursue their degree? What advantage does that individual then have over the rest of the individuals in that program that have come right out of high school and gone into that career track?

So I think a lot of it has to do with understanding clearly about career paths and flexibility within career paths. I don't think we talk about that enough. So we've all talked specifically about the need to ensure that basic education. When we talk about CTE, we're never asking for less rigor. We generally ask for more relevance, right? I mentioned before, that pipe fitter's got to know as much math as the engineer does.

So I think that the answer to that is more clear understanding of the potential that's out there in each individual career path.

Ms. CLARK. Great. And to pick up on a discussion we were having with my colleague from California, how do you think the assessment tests and sort of this remedial course work—I hear from students in my district that it's a big barrier. Students, as you were talking about, are trying, especially in our community college system, to either balance work or get to that first job as quickly as possible while they continue their education.

How can we do a better job of aligning with the K through 12 system? And do you have any models that you think are really working?

Ms. HUFTALIN. I think for us at Salt Lake Community College we've been looking at our kind of developmental education and the

major need that students are coming to us with those, both in math and writing, and really trying to stem that. As I mentioned earlier, we're working diligently with our math and writing faculty at the high school level to try to get that curriculum much more aligned.

But we're really looking at accelerated developmental ed, corequisites, concurrent learning, supplemental instruction. So rather than make them take isolated developmental courses that kind of pushes off their degree, they can take them in conjunction with the training that they're interested in.

The other thing I would suggest is that we've been very intention about stackable credentials so that students can take a very short-term certificate, get out into the world of work, start making money for their family, and then as the time is available, come back to the college and add to that another credential, eventually leading to an associate's degree. As their career trajectory changes, maybe they want to go into management, they can build on that, and none of that has been wasted time, if you will, in terms of articulation.

Ms. CLARK. Great. Thank you.

And, Dr. Ricks, you have had tremendous experience on bringing women and people of color into the STEM field. Can you talk a little bit about that experience in Washington, D.C., and what lessons you think that we can incorporated for the Perkins program?

Ms. RICKS. One of the things that I think that underpins the barriers for women and underrepresented groups is this—and what they're now calling unconscious, biased, or stereotype threat, where they feel that they can't do the work, that they can't compete. And so I think if we give enough opportunities and we provide enough role modeling, I think that that goes very, very far. And organizations like the American Women in Science, AWIS, and other groups like that have gone very far in making sure that women and girls in particular are given these kinds of opportunities to see themselves in the roles that they envision.

I think we tend to kind of minimize the importance of that, but it matters. Like when you look around this room, they've done studies on how even the Congress, they'll say, you know, to young girls and people of color, "Do you see yourself becoming a Congressperson one day?" And more frequently now the answer is yes, because they see themselves. And so that is critical in the sciences in particular.

They still do—and I think it's kind of funny—they'll do these kinds of studies where they'll ask young children who are the scientists. And typically they will choose a white male in a lab coat. That's changing now. So now you see scientists of different colors, different backgrounds, different ages, because it was always someone over 50. Now it's someone under 50. So I think that we could do a lot in doing that. -

Chairman ROKITA. The gentlelady's time has expired.

The gentleman from Michigan is recognized for 5 minutes.

Mr. BISHOP. Thank you, Mr. Chair.

And thank you to those of you who are here today to testify. Very interesting.

I'm from the great State of Michigan where we are known for our skilled workers. And over the years we've kind of moved away from

that in Michigan and we're trying to do whatever we can to ramp up our vocational environments again.

And I'm wondering, I was just noticing, Dr. Huftalin, the Utah Aerospace Pathways Program is a fascinating example of partnership between local educators and industries. And I'm wondering if you can share with us how that internship program enhances the students' experience.

And also in that same regard, what advice can you give to other learning environments, vocational learning environments, to continue updating their processes and continuing to align with changing needs to ensure they are properly preparing their students for the jobs that are available today?

I ask that question because as I work my way through my district, I note that there is an emphasis on vocational training, but I'm not sure that it's just there to say it's there rather than being dynamic and moving with the economy. We have 96,000 unfilled jobs in Michigan, manufacturing jobs primarily, and it's very important for Michigan, and we're really trying to get this right.

Ms. HUFTALIN. First, let me address the Utah Aerospace Pathways Program and how that came to be. When we created the partnership, we had very little time to move on this. And in higher education, it's rare that things move quickly. So this is remarkable in the sense that we were put together in about 6 months and got this thing off the ground.

But one of the things that was always center to that pathway was this idea that students would spend time in the industry in that 48-hour paid internship. Paid is important because students don't have—a lot of our students, if they're 27, 28 years old and they're already working in our adult pathway that we're creating, that makes that very difficult, right?

So young students in high school starting into that pathway will have a paid internship on the floor in Boeing, Hexcel, ATK Orbital, and really get to see with the real workers there what's going on in that industry, how dynamic that industry is, what does a day look like in that field. And we believe that kind of active learning, that very hands-on experience is going to definitely enhance their learning experience. So that was always part of our idea formation.

The other piece I would ask or answer about your second question is that I think you have to be very careful. We have program advisory committees that are industry and education partners for every discipline. And you need to be, I think, mindful of those program advisory committees and the makeup and composition of who is on them, so that that's rotating, that that's reflecting the new energy of an industry, the up and coming innovations in an industry. You get them on the program advisory committee rather than people that have been in the industry for maybe 20 years and have kind of maybe lost sight of some of the advancements, making sure that's a dynamic composition so that you're getting the best information about your curriculum.

Mr. BISHOP. Very nice. Thank you very much.

And I'd kind of like to, Mr. Johnson, continue with the conversation you were having with Mr. Carter. You were emphasizing the importance of partnering with practitioners. And I agree with that. And I'm wondering if you could—you were starting to talk about

it, and I want to make sure that you had time to speak about it and talk about the importance and why you think it's important to partner with practitioners.

Mr. JOHNSON. Well, if you look at the way NCCER programs are delivered, they are delivered, you know, obviously at the local level by skilled craftspeople who have gone through an instructor certification and training program very closely tied into construction companies that hire the individuals that go through our programs. I don't know of any other way for us to do it, quite frankly, than to be closely partnered with the practitioners, with the companies, with the individual skilled folks.

Just a note. We have a lot of available jobs in the State of Louisiana as well, a lot of industrial expansion going on there. I've seen a study from the Louisiana Community and Technical College System that says of the tier one jobs, that's our five-star and four-star jobs, these are the best jobs available in Louisiana, some 15,000 to 20,000 a year for the next 5 years, 85 percent of them require something less than a 4-year college degree.

Now, all of them require something more than a high school diploma, an industry-based certification or associate degree, but 85 percent of them require something less than a 4-year college degree. So we have to engage those practitioners to develop those skills and we're doing that in a significant way.

Mr. BISHOP. Thank you very much for that.

And I yield back.

Chairman ROKITA. The gentlemen yields back. I thank the gentleman.

Mrs. Davis, you're recognized for 5 minutes.

Mrs. DAVIS. Thank you. Thank you, Mr. Chairman.

Appreciate you all being here.

One of things that you talked about just a few minutes ago was sort of that back and forth with industry and the ability of instructors, teachers to really get a sense of what's going on in the real world and be able to translate that for their students.

I wanted to ask you, though, about the curriculum for CTE teachers themselves. You were just talking a little about that. You have to know your—if you're teaching a craft, you sure as heck want to know how to do that. But are there some other attributes and ways of training for—I think, Dr. Johnson, you talked about citizenship ready skills.

What is it that perhaps within this range of classes is really required of the instructors themselves, the kind of role model that those individuals are? What have you seen that perhaps is different, you know, from an English teacher, from a history teacher?

Mr. JOHNSON. Well, I've said often that you can be the best pipe fitter in the world. It doesn't necessarily mean you can teach pipe fitting, right? I mean, there are some very specific instructional capabilities, communication skills, motivational skills, the ability to connect and attach.

I think if you look at the way the NCCER programs are laid out, generally in four levels, if you are in the core curriculum level one, the demand on you in terms of your overall craft skill maybe is not as high, and so we can make some allowances at those levels when we're teaching those at, say, the K-12, the secondary level, that

maybe that individual does not need to be what we would call an A level or journey level crafts person.

But as we get up into those higher levels, those levels three and four, particularly in private programs and at the community and technical colleges, we need to make sure that those individuals have the relevant skills and abilities and have been in the industry so that they're attached to what's going on.

Mr. MAJOR. I might add to that just a little bit. We hire most of our instructors from industry. And so when they come in, we put them through an assessment, like NCCER, in our construction trades, to make sure that they have the technical knowledge. But we also look for what other employers look for, and that's the ability to communicate and work together as a team.

Once they're on our staff and they begin teaching, we also put them in the role of an adviser of a career tech student organization, and the career tech student organizations are our tools to help instill those employability skills to our students. We all learn best when we teach. And so as our teachers are guiding and being a role model and adviser to those organizations, they too are modeling those soft skills.

Soft skills tend to be a big topic when we have our advisory committee meetings because it's the first thing that employers want to talk about, is how do we enhance that. And so we try to work in combination of providing a good balance between the technical, the academic, but also those employability skills that students are going to need.

Mrs. DAVIS. These are sometimes very diverse populations that people are teaching, perhaps not the way that they grew up necessarily. And so how is that inculcated? I mean, we talk about cultural competency, of course. But what is it that may be important even in terms of how we engage, recruit individuals as well within these fields? I mean, is that working? Are we seeing the diversity that we should have?

Ms. HUFTALIN. I might just share that at Salt Lake Community College, one of the shifts that we're making, as I'm sure many institutions are making, is the shift from this idea that the focus is on teaching to that the focus is on learning. So that you have a variety of students walking into your classroom from very diverse backgrounds, age backgrounds, gender, you know, religious backgrounds, and most importantly, academic preparedness, right?

So our faculty, and I would say faculty in CTE and academic are really moving into more about how do we assess the learning throughout the semester or throughout in short term so that we're giving students academic confidence early on. Many of our students are at jeopardy for dropping out. They're first generation students, they're nervous, they don't think they're college material. They need to see early progress, and they need to have early wins to see themselves as career ready or a college student.

And so we're working with our faculty to help them. How soon can you give students really critical feedback? How do you create that feedback so that it's accessible to the student and then they can learn from that so that they feel confident and they feel like they can persist?

Mrs. DAVIS. Yeah. Dr. Major.

Mr. MAJOR. One other comment that I might add. We have our students for 3 hours a day, whether they're a high school student or an adult, and they spend more time with our instructor than they do with their own families. One of the things we really talk about on our campus is culture and climate. And students need to know that you care, you care about them in their technical studies, you care about them in their academic studies, but you also care about them in their lives.

And so you can't measure that, but you can observe that. And I can tell you our teachers do a great job of wrapping their arms around all of our students to help them succeed.

Chairman ROKITA. Thank you. The gentlelady's time has expired.

I'll now recognize myself for 5 minutes.

I appreciate everyone's leadership and the testimony and trying to encapsulate it all here at the end.

I guess one question I still have, and then I want to yield the remainder of my time to the gentleman from Pennsylvania who's going to follow up on the parental engagement centers and maybe some other things, is I heard about best practices. I heard about things that are going right. I heard about things are needed more. Teach the teacher programs and guidance counselor education, and that kind of thing. But I'm not hearing that Perkins is prohibiting that specifically, right? So this is a hearing that's ahead of us writing a bill that's going to reauthorize it.

So I'd be remiss—it's not that I'm looking for more work, we have enough problems that present themselves quite fully already—but I'd be remiss if I didn't get you all on record to say, hey, what's not working in Perkins, or what can be changed, maybe the focus on the State plan, or anything, the requirements there or the fact that you have to do two State plans versus maybe one. Any suggestions? Thirty seconds only each, please, if you have anything to add.

Dr. Huftalin.

Ms. HUFTALIN. I would just add that as you're looking at any kind of metrics or accountability, that you look at consistent metrics across multiple acts. So that right now we often have to meet different burdens of proof in terms of our accountability using different metrics. And to the extent that you could align those so that community colleges—so we are all looking at the same things for our different requirements, that would be less of a burden on us.

It would also help us as a community college, is that oftentimes we are asked to look at metrics that may be not as salient to community colleges as a 4-year institution. So to the extent that you can look at completion, that would be great.

Chairman ROKITA. Great. Thank you, Doctor.

Dr. Major.

Mr. MAJOR. I would continue that discussion in saying that I think the Perkins Act needs to continue to focus on high-quality programs that lead to a recognized outcome, and that in order for programs to have access to the funds, that they fall within that definition of high quality.

Chairman ROKITA. And who gets to define that?

Mr. MAJOR. I think that can be defined broadly in the legislation, but then also hold the States accountable. The delivery systems for career and technical education—

Chairman ROKITA. So the states could define high quality individually?

Mr. MAJOR. Within the guidelines of the overall act.

Chairman ROKITA. And that's okay with you, Dr. Huftalin, given your previous comment?

Ms. HUFTALIN. Well, I would want met consistent metrics being used.

Chairman ROKITA. Does that include definitions?

Ms. HUFTALIN. Yes.

Chairman ROKITA. Okay. See, you're making our job harder. I love it.

Dr. Ricks?

Ms. RICKS. I would say to embed some of the principles and practices of Perkins in minority-serving institutions. That includes HBCUs, HSIs, and tribal colleges. And also metrics.

Chairman ROKITA. Would you put specifics in writing to us after the hearing?

Ms. RICKS. Absolutely.

Chairman ROKITA. Thank you so much.

Chairman ROKITA. Mr. Johnson, in about 30 seconds.

Mr. JOHNSON. Can't improve on what's been said.

Chairman ROKITA. Thank you, Mr. Johnson. You made up for going over all those other times. I appreciate it.

I yield the rest of my 2 minutes, 8 seconds to the gentleman from Pennsylvania.

Mr. THOMPSON. Mr. Chairman, you are amazing and generous. Thank you.

I just want to note, in terms of I picked up on a new terminology from Dr. Ricks, which certainly applies to career and technical education, the K through gray. I'm hoping for gray. I'm on the losing end of that. But the fact is K through gray in terms of career exploration, career preparation, and career launching, mobilization, and that's the exciting part about career and technical education. It is the life span.

This committee has done great work. The Workforce Innovation and Opportunity Act. We really focused on just zeroing in on that early—not the earliest, but the 16, we have specific language specifically for 16 to 29, you know, trying to help folks break into the workforce through the Workforce Investment Act reauthorization that is law today.

And then with ESEA, I want to come back to the parental or the family engagement centers. We have language within the Student Success Act. That, again, we have to get ESEA done.

So if we are successful—when we are successful—looking for how do we utilize that as a model to utilize to support career and technical education with the family engagement centers? Any thoughts and ideas?

Dr. Huftalin, you talked about emphasizing the salaries, the moneys. I think that's a great strategy. Other ideas?

Ms. HUFTALIN. One thing I might add is that we are working very carefully with the community council in this neighborhood

where we're hoping to build this new building. And I think to the extent that you can get the residents of the neighborhood and the community in the space to see how state of the art it's going be, to see how exciting the training's going to be, that could perhaps lend some support to the parents really supporting that for their family.

Mr. THOMPSON. Any other strategies come to mind?

Mr. MAJOR. I think if we can encourage parents to be more involved in their student's program of study, starting at the earlier grades, so that they're aware of the coursework that they're taking and where that coursework might lead them in the future, would be helpful.

Mr. THOMPSON. Okay. Thank you, Chairman.

Chairman ROKITA. The gentleman's time has expired. The gentleman yields back. The gentleman's time has expired.

I thank the witnesses again for their testimony.

And, Ms. Fudge, you're recognized for closing remarks.

Ms. FUDGE. Thank you very much, Mr. Chairman.

And thank you all so much for being here.

I have for many years talked about the fact that America once again needs to build and make things. We have always been the Nation that everyone looked to for quality. And so we need people who are skilled to do this work.

Once we get back to being who we are as a Nation, certainly young people will have jobs, and they will see the alternatives that you are trying to present.

So I just hope that you are successful. And I certainly hope that this Congress moves forward to reauthorize this act and to once again understand who we are as a Nation, that we are the best, and that we need to continue to be the best by making sure we have a workforce that is able to keep us on the top.

Thank you very much, Mr. Chairman.

Chairman ROKITA. I thank the gentlelady, and I echo the gentlelady's comments.

In closing, I want to thank our witnesses again. And I appreciate, I really do, your leadership and what you're doing for Americans' future, our best asset, our children and our students.

And with that, seeing no further business before the committee, this hearing adjourned.

[Whereupon, at 11:47 a.m., the subcommittee was adjourned.]

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