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“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 \$51,910ⁱ, 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.

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.cnn.com/2015/07/27/8-young-entrepreneurs-making-serious.html>