HEARING BEFORE THE UNITED STATES REPRESENTATIVES COMMITTEE ON EDUCATION AND LABOR

SUBCOMMITTEE ON HEALTH, EMPLOYMENT, LABOR, AND PENSIONS AND THE SUBCOMMITTEE ON HIGHER EDUCATION AND WORKFORCE INVESTMENT

"Care for Our Communities: Investing in the Direct Care Workforce"

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Chairwoman Wilson, Chairman DeSaulnier, Ranking Member Murphy, Ranking Member Allen and Members of the Subcommittees.

Thank you for the opportunity to appear before the subcommittees to discuss workforce development initiatives in the United States. Udacity is committed to preparing the nation's workforce for the skills necessary for the careers of the future

I serve as Head of Business Development for public sector partnerships at Udacity. My team is responsible for developing government and donor funded programs, to implement large capacity building initiatives that upskill citizens from diverse backgrounds in North America.

In today's world, technology is advancing at an accelerated pace. Companies that do not embrace digital technologies risk getting left behind. Yet the adoption of digital transformation strategies requires skilled talent, and around the globe, employers face a growing challenge to find the right talent to be able to thrive and grow. Consider the following points:

- An estimated 75 million jobs may be disrupted by machines and automation in the next five years, according to the World Economic Forum. (WEF)
- Automation will displace 800 million jobs by 2030. (McKinsey)
- Up to 375 million people will need to change jobs during that same span. (McKinsey)
- Nearly nine in ten executives and managers say their organizations either face skill gaps already, or expect gaps to develop within the next five years. (McKinsey)

- Worldwide spending on digital transformation is projected to grow 17% annually to reach $2.3 trillion by 2023. (IDC)
- “Talent shortage” is ranked by corporate executives as the #1 risk to organizational change. (Gartner)

Udacity was founded in 2011, with a mission to train the world’s workforce in the skills and careers of the future. We achieve this by helping to close the technology skill-gap that has become the critical and one of the top-most priorities for business leaders.

Our curriculum is designed in close partnership with the technology industry. Udacity works with 200+ industry experts who help build our content; these partners are among the world's most forward-thinking companies and industry luminaries, including Google, Amazon, Microsoft, Intel, Salesforce, Facebook, IBM, AT&T, and others. Our customers include a wide-ranging base of small and large entities including: Shell, Leidos, Airbus, Credit Suisse, Mazda, and the U.S. Air Force.

Udacity’s curriculum is primarily delivered through our Nanodegree programs, which provide practitioner-level instruction or mastery for an employable technical job-skill. The Nanodegree program is a projects- and skills-based educational credential, consisting of a recommended set of courses, each aligned to a specific project.

> **Courses**: These are the building blocks of each Nanodegree, and each course consists of online lessons designed to assist learners with the creation and successful completion of a relevant and practical project portfolio. They are taught by experts in their fields, and individually supported by technical experts and mentors.
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> **Projects**: Our projects are hands-on, based on real-world scenarios, and designed to demonstrate competency and build practitioner-level skills in a particular job field. Their focus is not merely to test skill level, but to give learners a chance to gain mastery in that specific technology.

Because these programs teach hands-on, practitioner-level skills to those who will be implementing a specific technology, our graduates have the knowledge and ability to hit the ground running -- either in a new job, or within their current job responsibilities. Udacity’s curriculum is organized across seven distinct schools:

- Data Science
- Artificial Intelligence
- Programming
- Autonomous Systems
- Cloud Computing
- Business
- Cybersecurity

As of today, we have a total of 65 Nanodegree programs across these seven schools, as well as about 200 free courses. We continually release new Nanodegree programs and also update existing ones to be current.

Our development of new curriculum is focused on meeting new challenges at the intersection of technology and industry. In the healthcare field, for example, we offer a Nanodegree program titled “Artificial Intelligence for Healthcare”. In this program, students learn a number of advanced applications for AI, such as how to utilize data to build predictive models that have the power to transform patient outcomes. Phenomena such as wearable medical devices and telemedicine are transforming the industry, and programs like these give healthcare professionals a glimpse of a future career path that is very attainable.

Udacity has educated over 15.4 million learners in over 200 countries, with over 172,000 Nanodegree certificates granted. We have collected countless stories of direct impact on the livelihoods of individuals such as Ryan Waite. A native of Gaithersburg, Maryland, Ryan was working two minimum wage retail jobs when he was accepted to a 4-year university, but he decided not to attend, because of concerns about taking on student loans. Instead, he won a scholarship for a Udacity nanodegree program in Front End Web Development, which he parlayed into an internship at NASA. Today, he works for GitHub (a subsidiary of Microsoft), and credits Udacity with helping him unlock his opportunities:

> *“The Nanodegree program got me to where I wanted to go. It not only gave me the skills I needed, but it gave me confidence in those skills.”*

Udacity also works with over 110 corporate clients globally, helping their employees acquire tech-forward skills to accelerate digital transformation journeys in their respective organizations. These relationships span numerous industry sectors, including Financial Services, Oil & Gas, Telecom, Automotive, Media and Aerospace.

Beyond the private sector, we also work with numerous government and non-government agencies in North America, Europe, Asia, Middle East, and Africa. These entities use Udacity Nanodegree programs for a wide variety of initiatives, including:

- Workforce development for growing populations
- Internal government employee upskilling
- Part of government-run universities
- Public-private partnerships to drive social impact

The reauthorization of the Workforce Innovation and Opportunity Act (WIOA) represents a unique opportunity to align the U.S. workforce system with the trends and challenges outlined above. According to the Department of Labor, this legislation is designed to achieve the following:

- Strengthen and improve our nation's public workforce system

- Help get Americans, including youth and those with significant barriers to employment, into high-quality jobs and careers
- Help employers hire and retain skilled workers

Much progress has been made since it was signed into law in 2014, and seven years later, we see an opportunity to build on this progress. This can be accomplished with concerted efforts in three distinct areas: Structural Changes, Channel Investment and Labor Market Innovation.

Structural Changes

Overseeing the workforce system in a vast economy such as the U.S. requires many moving parts to work together in synchronicity. We propose the following improvements to the WIOA structure, in order to drive efficiencies within the workforce system. These changes would help facilitate the entry of new, dynamic providers of educational programs -- while removing barriers to modernization faced by existing providers.

1. **Create a more scalable registry of providers.** Every state maintains its own individual Eligible Training Provider List (ETPL). The process for providers to maintain their catalog of programs is different in every state, causing huge administrative burdens for new providers, including those focused on emerging occupations with strong growth trajectories.

2. **Facilitate the mobility of dollars across labor markets.** People often live in one place and work in another, but the WIOA system is largely built on supporting learners and employers simultaneously in a single workforce area. If there were more incentives to collaborate with neighboring workforce areas, it would minimize sunk costs for the workforce boards and help providers achieve better scale with their instructional programs.

3. **Build a WIOA system which creates more economies of scale while still maintaining individual accountability.** Applicants still need to go through 1:1 consultations. Talent liaisons at the American Jobs Centers (AJCs) need to review individuals' documentation to approve WIOA funding. Providers still need to produce an invoice for every single learner. These kinds of bottlenecks limit the efficacy of the workforce system. If more aspects of WIOA funding, governance and operations were able to be executed at a program or workforce area level, the system would succeed in educating more citizens -- and these citizens would benefit from more diverse choices in the marketplace.

4. **Increase accessibility and transparency for all program performance data.** Extracting program performance data is an arduous process unique to each state. A better alternative would be to maintain a single resource harmonizing all geographies, providers, occupations (SOC codes), instructional programs (CIP codes) and the WIOA performance metrics associated with each. With better visibility into system/program

performance across all aspects of the market, providers can better tailor their solutions to fit market needs, which would foster better budget utilization and create efficiencies through longer lasting partnerships.

5. **Remove barriers to accessing hardware and broadband.** Just 11% of households lack a computer, and 15% lack access to broadband, but for the subset of Americans who are the focus audience of workforce innovation programs, those figures are much higher. If a student does not have access to a computer with a high speed internet connection, this can be an immediate disqualifier for remote learning programs. Removing these barriers would increase the addressable market for new workforce solutions.

Channel Investment

Labor markets are notoriously complex and intertwined with the economy at a local, regional, national and global level. Today's workforce system invites participation from diverse stakeholders (academic institutions, vocational/trade schools, workforce boards, jobs centers, and a wide array of learner archetypes) -- but more can be done to facilitate their collaboration.

1. **Incentivize community colleges to partner with more nimble providers.** Community colleges maintain strong employer relationships, which keeps them firmly rooted in the WIOA system. If the system empowered them to reach out to non-traditional educational institutions to fill curriculum gaps, the result would be better overall utilization of WIOA funds, a better fit between citizens' needs and the programs they pursue, and better performance outcomes overall.

2. **Foster a more dynamic relationship between workforce board & learners.** Workforce boards see the employer as their primary stakeholder; they solicit needs, match to providers on the ETPL, and then work with Jobs Centers (i.e. the operational arms of the workforce boards) to populate the programs with qualified learners. The WIOA system should increase its focus on marketing operations, facilitating the efforts made by workforce boards to be out in front of their communities. This would speed up delivery of services and create better alignment between expectations and available solutions -- reducing strain on the AJCs and driving better performance outcomes overall.

3. **Create more effective mechanisms for individuals to invest in their own career transformation.** One weakness of the fully-funded scholarship model is that when a learner isn't investing their own money, this can dilute their incentive to persevere through a challenging program. System-wide, WIOA manages to graduate roughly 7 in 10 learners, indicating significant volumes of resources wasted on the remainder. The reauthorization of WIOA presents an opportunity to explore new mechanisms to minimize the out-of-pocket cost to a student, without defraying it completely. Diversifying

the options for an alternative student-funded model would augment the potential audience for workforce innovation programs.

Labor Market Innovation

Our modern economy is driven increasingly by the pace of technological change. This change creates ripple effects in labor markets which affect the livelihoods of countless Americans. Even in the seven years since WIOA took effect, technological change has dramatically changed many facets of modern life. The collection and utilization of massive data sets has altered the way products and services are built, delivered and experienced. Artificial intelligence is powering automation of business processes, transforming the economics of entire industries. Ransomware attacks and other breaches of cybersecurity increasingly permeate the news cycle. And entire communities are being excluded from the gains. Thus, many of the organizing principles at the core of our workforce system no longer apply in 2021. By incentivizing WIOA's scope from the perspective of both industry and citizens, the entire workforce system can achieve greater overall impact.

1. **Incentivize workforce boards to invest a greater share of budgets in high-growth occupations.** WIOA funds career pathways into a wide variety of occupations that provide living wages to many Americans; this impact can be augmented with added focus on emerging occupations which provide people with significant economic mobility. For example, there are currently almost 700,000 job openings nationwide for the occupation "Software Developers and Software Quality Assurance Analysts and Testers" (15-1253) at a median annual salary of $115,000.

2. **Incentivize distribution of funding toward distressed communities.** Because WIOA accountability is based on the achievement of system-wide performance indicators (e.g. job placement, median earnings), disadvantaged citizens are structurally disadvantaged from benefiting. Workforce boards are more incentivized to support the types of learners who are likeliest to drive those metrics -- overlooking many people who need help the most. The efforts to reauthorize WIOA should consider provisions for at-risk communities, and either apply different performance standards, or incentivize the utilization of complementary services (e.g. mentorship, soft skills).

3. **Create a taxonomy of priority skill pathways.** Upskilling is not always a direct path in which a person moves from the starting line to the finish line in a single fluid motion. There is increasing evidence of the importance of gateway jobs, i.e. an occupation that someone aspires to, en route to their ideal job. (Example: Recent research from Markle Foundation concluded that Client Service Representatives can become Computer Systems Administrators, by achieving the intermediate occupation of Computer User Support Specialist.) WIOA should make a provision for top-down guidance on skill pathways to its stakeholders, such as economic development and workforce boards. With a greater focus on the medium- and long-term drivers of career transformation, the

workforce system can minimize the risk of program graduates falling back into support scenarios. If we improve the system's odds of moving citizens up and out, we help to secure the long term positive economic impact of upskilling programs.

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Over many years, the U.S. workforce system has left a lot of positive change in its wake. In 2021, we believe that the aforementioned reforms will help create greater alignment between citizens, employers, and the educational resources that bring them together. We look forward to joining forces with like-minded legislators and thought leaders, to raise the bar for this fundamental pillar of our economy.