National Commission on Innovation & Competitiveness Frontiers

Key Takeaways from 2024 Working Groups

Working Group 3

The Future of Work: Developing, Supporting, and Expanding the Modern Innovation Workforce

Session 3: March 6ᵗʰ, 2024

This Working Group session focused on widening the talent aperture: how to expand diversity in the innovation workforce and inclusion of underrepresented groups?

I.   KEY THEMES

Working Group discussion identified several key themes during this session:

1) **It starts with communities** when it comes to engaging diverse individuals in the future workforce.

2) **Education is a precursor to engagement**. Many individuals in diverse or underserved communities need to given information about technologies, job opportunities, and skill-building opportunities, before they can be expected to engage in the future of work.

3) **Financial investment is critical** to solving community- and individual-level barriers to engaging in the future workforce. Communities need more economic stability and resources, and individuals need wraparound services and financial support to invest in the training required to access the well-paying jobs.

4) **We need more and better data** in order to effectively engage diverse communities and understand where the gaps are in terms of training and education opportunities.

II.   DISCUSSION, IDEAS & POTENTIAL RECOMMENDATIONS

Addressing community-level barriers in disadvantaged communities.

- For many minority groups and diverse populations, cultural, economic, and logistical barriers at the community level are more impactful than individual barriers in terms of joining the innovation workforce.

- We need to direct workforce investment based on a community version of Maslow's 'Hierarchy of Needs'. Access to affordable housing, transportation, childcare, eldercare, etc. are basic innovation 'readiness' factors that communities must have before households can think creatively about skill acquisition and workforce participation.

- Many cross-cutting economic and social investments in disadvantaged communities would improve their innovation infrastructure, and potentially be more impactful than only targeting efforts for individuals.

    o For example, rural high schools often lack basic resources compared to other parts of the country, such as high-speed internet access.

    o Another example would be increasing government subsidies for childcare for working parents. Many talented individuals fall out of the workforce due to the cost and availability of childcare.

- Examples of impactful programs that are building innovation infrastructure in under-served communities, and could potentially be replicated, include:

    o The Verizon Innovative Learning Program, which partners with local universities, to make advanced technology (e.g., 3D printers), accessible to students in Title I schools.

    o The Anchor Institution at UC Davis focuses on training and uplifting the communities around the university to develop workers capable of competing for open positions at UC Davis.

Building awareness and education amongst under-represented and under-resourced individuals about next-gen jobs and industries of the future.

- A precursor requirement for being able to enter the innovation workforce is simply understanding what advanced technologies are, learning new terms, and hearing about what types of jobs are associated with these industries. It is important for innovative companies to communicate and educate individuals about how advanced technologies (e.g., AI and quantum computing) are already integrated into many aspects of "normal life".

- The Council on Competitiveness could lead an effort to develop a layperson-accessible "guide to the innovation economy" that includes a glossary of key terms, an inventory of positions and job types, and engaging case studies.

- It's difficult to effectively engage people without understanding where outreach is most needed. There is more than NSF, and potentially others, could do in terms of collecting data that maps the geographic distribution of who is and isn't participating in the innovation economy.

Building accessible training pipelines and pathways for diverse individuals.

- In general, the U.S. needs to build more connective tissues between the worlds of work and education, and to better sync training and workforce preparedness with the skills needed by the industries of the future.

- Employers and higher-ed institutions have a shared responsibility to figure out how to get underrepresented talent quickly up to speed for livable wage jobs. This will require making training pipelines more flexible and accessible. For example, many individuals from diverse backgrounds balance time-consuming family care responsibilities with work and education/training. Caregiving responsibilities will increase as the U.S. population ages, which will require flexibility and creative approaches to building skills with less intensive time expectations.

- The high upfront cost of training programs, unpaid internships, and certifications presents a particularly high barrier for many individuals from underserved communities. As a nation, we need more support and funding for programs that offset the financial barriers that make high-paying jobs inaccessible to many members of diverse communities (e.g., registered nurse anesthetists, nurse practitioners, radiology techs).

- An approach that Southern Company is trying is to work with its state-level Department of Labor to identify local communities that are most in need and then to partner with local technology and community colleges to support training programs and wraparound services for students (e.g., transportation, housing, childcare). Partnering with academic institutions also makes it easier to connect trained individuals with specific job opportunities.

- At the national level, the U.S. Department of Labor should collect more and more robust data on workforce development and education. We need better insights and data about what skills are being taught by which programs at which schools.

- One interesting question to consider over the next several years is how to re-engage American men in the labor force. Even as we focus on creating attractive and accessible pathways to training, credentialing, and employing a more diverse workforce in the innovation economy, research suggests that men — particularly in communities that are undergoing an economic transition — are struggling to reskill and participate in the future of work.

Retaining diverse talent.

- Recruitment of diverse talent is not successful unless diverse talent is also retained and promoted.

- We need to be willing to get creative and flexible in how we think about managing and retaining workers in world in which work is more mobile and less tied to specific location. For example, how might employers design remote/hybrid work policies to provide value to individuals that need flexibility in order to stay engaged in the workforce?

- Immigrant communities face unique challenges in terms of balancing non-work expectations with work and education, including eldercare, investment in their families, etc. This can make traditional, full-time work very challenging.

- The 'You Belong Here' initiative at UC Davis focuses on retaining diverse employees once hired by the university by intentionally creating a sense of belonging.