Human Capital for the 21st Century: Aligning Education with Future Workforce Needs

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Background

Two years into the COVID-19 pandemic, 6.5 million people remain unemployed despite the nearly 11 million job openings in the U.S. As labor demand continues to surpass supply, experts have cited the lack of workforce readiness programs specific to the changing labor market as a major reason for the market’s slow recovery. In addition, unless addressed, the disconnect between the skills taught to students through the U.S. education system and the competencies employers are currently searching for may lead to long-term challenges for economic growth. In fact, according to a survey commissioned by the Carnegie Corporation of New York, one-third of Americans (33 percent) consider a lack of education or job-skills training as one of the greatest barriers to getting back to work.

Specifically, many have called for greater alignment between education systems and the workforce, more equitable access to career-oriented experiences, and new policy approaches that will enable all individuals to successfully enter and thrive in the evolving labor market. Overall, education leaders at all levels must commit to new policy solutions that offer early exposure and access to career-oriented experiences for students and adults, encourage localized partnerships between education systems and industries, and address retention challenges in high-demand fields.

The Pandemic’s Impact on the Labor Market

The COVID-19 pandemic transformed the labor market and exacerbated systemic issues related to labor force participation. While the unemployment rate dropped from 9.5 percent in March 2021 to 4.2 percent in December 2021, unemployment continues to exceed pre-pandemic levels. Moreover, certain populations continue to experience greater economic barriers, including Black adults, Latino adults, and other people of color. College graduates have also experienced a downturn in employment, as their rate of participation in the workforce dropped from 86 percent to 79 percent between October 2019 and October 2020.

Additionally, increased rates of automation have threatened the low-wage labor market during the pandemic, forcing more than 3 million people out of their jobs. By 2025, at least 50 percent of employees will need reskilling as the U.S. continues to adopt more technology in the workplace. This is concerning since 53 million Americans, or 44 percent of all workers ages 18 to 64, are in the low-wage job market. Furthermore, women account for 54 percent of low-wage workers and both Latino and Black workers are over-represented in this group compared to their participation in the total workforce. In addition, a little more than fifty percent of low wage workers are the sole income earner in their families. In general, the pandemic has increased inequities in job attainment across income levels, people of color, and between genders.

Overall, education leaders at all levels must commit to new policy solutions that offer early exposure and access to career-oriented experiences for students and adults, encourage localized partnerships between education systems and industries, and address retention challenges in high-demand fields.
The Future of the Workforce

There is a clear need and desire for additional skilling, reskilling, and upskilling opportunities for students and adult learners that align with the skills and competencies the current job market requires. The evolving labor market has greatly changed the types of skills needed to succeed in the workplace. Currently, the healthcare, STEM, creative, and transportation job markets are expected to grow, with large declines in customer service, sales, and food services roles. Positions paying the top 30 percent of wages are also expected to grow – roles that require a greater mix of skills and experiences.

Generally, there are eight competencies associated with career readiness, including self-development, communication, critical thinking, equity and inclusion, leadership, professionalism, teamwork, and technology use. By 2025, the top five most important skills will more specifically include analytical and innovative thinking, active learning, complex problem solving, critical thinking, and creativity and initiative. Overall, prospective employees will benefit from being able to “add value” beyond automated systems, effectively operate in a digital environment, and adapt to varying methods of working in new roles.

To set students up for success as they enter the workforce, job skills acquisition can start in grades K-12 with opportunities to continue reskilling and upskilling through adulthood. A national survey commissioned by The Hunt Institute found that a solid majority of parents of school age children (64 percent) and especially parents of high school students (71 percent) believe having programs and courses that teach job skills for future workforce needs is very important. While some efforts to improve workforce development exist at all levels, policymakers and school leaders must continue to be intentional about investing in and promoting equitable education programs that support job skills training and workforce development.

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- The Hunt Institute & Lake Research Partners National Voter Survey

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Recent Efforts to Improve Workforce Development

Federal

The Workforce Innovation and Opportunity Act (WIOA). Though workforce development efforts occur at the state and local levels, the federal government provides funding through the WIOA to support these efforts. The WIOA was signed into law on July 22, 2014, and was created to “help job seekers access employment, education, training, and support services to succeed in the labor market and to match employers with the skilled workers they need to compete in the global economy.” The law requires states to develop their own 4-year plans that align with their workforce development performance goals.

The Strengthening Career and Technical Education for the 21st Century Act (Perkins V) was signed into law in 2018 and provided nearly $1.3 billion annually for career and technical education (CTE) programs, as well as other educational initiatives. For example, Perkins V enabled school districts to utilize federal funds to create career exploration and development activities for middle school students and academic counseling for high school students, regardless of their status as a CTE student. Perkins V also allows states to set aside special reserve funds for students in rural areas, places with a large number of CTE programs, or areas with gaps or disparities in performance.

Recent federal funding. More recent legislation has supported workforce development initiatives, including the Digital Equity Act under the federal Infrastructure Investment and Jobs Act, which would provide $2.75 billion for digital inclusion in rural and urban communities and grants to local governments, nonprofits, and the private sector to fund basic digital skills training, as well as access to connected devices. Additionally, with funding from the American Rescue Plan (ARP), the U.S. Economic Development Administration is allocating $500 million to collaborative skills training systems and programs through their Good Jobs Challenge. Several states, such as North Carolina, were also awarded small federal grants to support jobs and workforce training through the Coronavirus Aid, Relief and Economic Security (CARES) Act.

State

State workforce development board. The state workforce development board (WDB) overseas statewide policies and programs relating to workforce development and their continuous improvement. The state board is tasked with assisting the governor with the development and implementation of the four-year state plan.

Federal relief funding. With the influx of federal relief funding, states have allocated varied amounts for workforce development efforts. For example, Maryland is allocating $75 million from ARP funds for employment training and apprenticeships, following the approval of 27 new apprenticeship programs during the pandemic. Maine is providing $105 million to train workers through CTE and higher education programs, $25 million for youth career exploration, and $15 million to support initiatives that connect workers with job opportunities.

Public-private partnerships. States may also choose to partner with organizations to streamline the school to career pathway. One example is ACT’s WorkKeys Assessments, which aim to close workforce gaps by helping individuals measure their workplace skills, making it easier for employers to hire talent that matches their needs. The program also offers a credentialing program to assist individuals in advancing their career goals. Currently, 21 states have partnered with ACT to provide WorkKeys assessments and/or curriculum at the state level.
Local

Local workforce development boards. Similar to state WDBs, local WDBs are responsible for developing local plans for the use of WIOA funds and are required to include members from the business community, local community colleges, elected officials, and training providers. Local workforce boards may conduct regional labor market analysis, support education stakeholders in the development of credentialing programs, conduct outreach to increase awareness of regional careers, and identify career pathways that clarify the skills and credentials required to fill these positions. Local boards can also serve as a resource hub, providing job search and career planning support to individuals.

Career and technical education (CTE). CTE programs vary across states and districts, all aiming to equip students with the academic and technical skills, knowledge, and training necessary for success in their careers. Programs are primarily offered at traditional high schools, part-time CTE centers, and postsecondary schools. According to the U.S. Dept of Education, nearly every public school district offered CTE programs to high school students in 2016-17, ranging from work-based learning opportunities (77 percent), dual enrollment coursework (73 percent), employer mentoring (65 percent), and student-led services (55 percent), though specific industry representation varies.

Career Clusters. State agencies, districts, and schools may also organize career information relevant to the region through Career Clusters and pathways. A Career Cluster is a grouping of occupations and broad industries that represent a common set of knowledge and technical skills to pursue the career opportunities within that pathway. There are 16 Career Clusters in the National Career Clusters Framework, representing 79 Career Pathways.
Policy Considerations

Schools are necessary for instilling in students a broad range of knowledge, skills, and abilities to prepare them for civic and community engagement and workforce participation. With a changing economy and labor needs, schools must maintain relevant curricula and access to resources to properly prepare youth and adult learners for successful careers. Moreover, adults who would benefit from upskilling or reskilling to transition to a new field require the guidance and know-how to do so efficiently. With incoming federal investments in infrastructure and limited relief funding, workforce development boards, schools, and industries will need to take a collaborative and multipronged approach to improving K-12 to career pathways in order to improve student and adult competitiveness in the labor market and reduce the job skills gap.

The following recommendations and actionable policies serve as checkpoints for policymakers and education leaders as they work towards improving their workforce development efforts:

**Foster a talent pipeline by exposing students to relevant job skills and career options as early as elementary school.**

- Reimagine what career and job skills exposure can look like in grades K-12. Current workforce development efforts are generally targeted toward postsecondary and adult education. At the elementary level, students largely learn traditional skills, such as reading, writing, math, and science. Yet, “soft skills” can be taught as early as elementary school, including communication, teamwork, social etiquette, digital citizenship, money management, and career field exposure. For example, one case study of a fifth-grade class participating in a project-based economics unit found that designing and running their own social businesses helped students understand microfinance and other entrepreneurial concepts. Intentionally integrating job-skills development in lessons can help students as they explore career options and prepare for the workforce.

- Build the necessary infrastructure by investing in relevant digital technology, equipment, and educator training. Successfully teaching digital or other job skills requires all students and teachers to have access to technology and high-speed internet to communicate with each other and properly engage with programs. In addition, while programs in the Microsoft Office suite are still helpful for students to learn, common programs used in the workplace – including calendars and email, design programs, and programming software – can also be used to teach project management, creativity, and computer literacy skills. Though investments continue to be made to close the digital divide, ensuring students have full access to these resources, maintaining relevant technology to keep curricula up to speed, and training educators to teach these skills are imperative for setting students up for success.

**Expand paid work-based learning opportunities and apprenticeships in high school and postsecondary education.**

- Adapt course options to workforce needs by investing in career and technical education (CTE), apprenticeship opportunities, and vocational classes. According to the U.S. Bureau of Labor Statistics, the fastest 87% of likely voters favor investing in job skills and workforce training, like apprenticeships.

- The Hunt Institute & Lake Research Partners National Voter Survey
Growing occupations in the country are in the fields of renewable energy, healthcare, and STEM. There has also been a critical shortage of skilled trades workers in infrastructure fields. However, CTE programs and public-school curricula more broadly are slow to adapt to these trends. A 2020 Jobs For the Future (JFF) study on high school trades education found that schools’ skilled trades education data are used primarily for funding compliance purposes and not to ensure that program participation meets labor market needs. The study also found that there is inequitable and disproportionately low student participation in subjects such as construction, manufacturing, plumbing, and electrical fields – areas that will require significant labor due to the passing of the infrastructure bill. Therefore, states and districts must invest in the right training opportunities led by data-driven evidence of market needs.

• Consider opportunities to pair education and job skills training with paid work. According to a Carnegie Corporation of New York Gallup Survey, more than 90 percent of Americans said opportunities to blend education or job-skills training with paid work would be “very effective” or “somewhat effective” in helping people gain the skills and qualifications they need to get good jobs. Offering pay for training can incentivize students to consider high-needs fields and encourage equity between different sectors. Additionally, paid work opportunities can make programs more accessible to low-income students. Similarly, states may consider eliminating unpaid internships, offer grant funding to employers to pay their interns, or consider institutionalizing credit accumulation for work experience in addition to pay.

• Eliminate the stigma tied to some vocational fields. JFF’s qualitative study found that trades education is often associated with “dirty” shop classes resulting in “dead-end” jobs, which leads students to overlook opportunities in the trades. However, research has shown that CTE participants experience more informed college decisions, higher wages and employment outcomes, lower chances of high school dropout, and increased on-time graduation rates, with many respectable CTE occupations paying well. For example, the 2020 median annual pay for electricians was nearly $57,000, while construction managers make over $97,000 per year. For many families, this stigma stems from a lack of knowledge about CTE fields.
Schools have a role in helping students and families appreciate these fields as low-cost paths to a viable career by better communicating wages, employment trends, and training pathways of these occupations to households.

Work with workforce development boards to coordinate localized partnerships between education systems and industries to better meet the community's unique economic needs.

- Create streamlined pathways that guarantee employment at selective companies for students who successfully complete the program or credential. Active industry involvement in secondary and postsecondary CTE programs and apprenticeships can help students see how their education translates to their future career and can ensure that students successfully complete their programs career ready. They also encourage local students to stay and grow in their communities, further developing community ties.

- Develop industry-recognized certifications. Like ACT’s WorkKeys certifications, developing state-backed credentialing opportunities can help students demonstrate the knowledge and skills relevant to a specific occupation or industry. Ensuring that certifications are up to date with industry changes and are recognized by businesses can maintain the value of the credential and build student competitiveness in the state.

- Remove barriers and create incentives to become a CTE educator. Different states vary in their CTE teacher certification requirements. While some states require a bachelor's degree, credentials in their field, student teaching experience, and passing a teaching certification test, others offer alternative certifications to bypass some requirements, resulting in varying hurdles for interested professionals. At the same time, the current CTE teacher workforce is aging rapidly in some states.
For instance, over 24 percent of Tennessee’s CTE teachers are eligible to retire within a few years. Since CTE programs must compete with the private sector for the same pool of qualified instructors, and often at a lower salary, states must consider ways to attract industry professionals to fill the teaching gap. Easing certification requirements and offsetting salary differences for high-demand disciplines, such as through a sliding pay scale as is done at Hawaii’s community colleges, are two ways to fill the teacher gap.

Address worker retention issues to ensure sustainable pathways, especially in high-demand fields.

- Evaluate work conditions and employee needs and identify factors for high turnover in high demand fields. Policymakers must recognize that labor inefficiencies are a problem of both recruitment and retention. High employee turnover increases employer costs and contributes to labor shortages in essential fields. Due to the pandemic, the U.S. is also experiencing a work culture shift, with employees experiencing burnout, low wages, or unsatisfactory work conditions choosing not to return to their prior jobs. One 2021 Pew Research Center survey found that 66 percent of the unemployed “seriously considered” changing their occupation or field of work. To further strengthen K-12 to career pipelines, it is necessary to understand the factors resulting in high turnover to target retention issues.

- Standardize workplace benefits at the federal or state level, such as paid family leave, transportation, childcare assistance, and mentoring programs. Institutionalizing benefits may help promote equity in industries and make them more attractive and accessible to students and adults. These benefits should result from evidence-based research and a deep understanding of the barriers and needs of workers in the field.

- Establish a more inclusive workforce development model that can equitably serve all individuals who are seeking to enter the workforce or advance their careers. Employers should examine their operations for any organizational barriers and challenges to successfully providing equitable workforce development opportunities. One such strategy may be to launch a task force to drive the company’s equity goals, target reemployment and training for populations most in need, and gather and analyze data for gaps in outcomes. Employers can also promote equitable and diverse work environments by establishing stronger enforcement of anti-discrimination laws on hiring, promotion, and pay for people of color, women, and older adults. While anti-discrimination laws, as protected by Title VII, should be enforced, states and municipalities should also consider passing additional laws on anti-discrimination in the workplace.

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