



**Written Testimony of Sheila Ireland
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Department of Labor & Industry
Joint Hearing of Senate Labor and Education Committees
The Role of Adult Education in the Workforce Development System
September 22, 2021**

Good afternoon, Chairwoman Bartolotta, Chairman Martin, Chairwoman Tartaglione, and Chairwoman Williams, and members of the Senate Education and Labor Committees. Thank you for the opportunity to speak with you today about this important topic, the role of adult education in workforce development. I am Sheila Ireland, Deputy Secretary for Workforce Development at the PA Department of Labor & Industry.

The Impact of the Pandemic on the World of Work

Let me begin by saying that we believe that an effective Adult Education system is critical to Pennsylvania's recovery from the COVID-19 pandemic, and to Labor and Industry's strategies to help unemployed and underemployed Pennsylvanians to connect to job opportunities.

As you know, over the past 18 months the COVID-19 pandemic has shaped everything we do. It will continue to influence our actions and opportunities for the foreseeable future. My role at the Commonwealth has afforded me a front row seat to this reality, particularly as it has affected workers, employers, and the overall workforce development system.

The disparate impact of COVID-19 on communities of color and women has been well-documented, and there are many aspects we can discuss regarding the importance of adult education in responding to workforce needs. Today, however, within the context of the base line skills required to connect to work, I would like to focus on the impact of technology, namely automation, artificial intelligence (or AI), and machine learning, and the important of ensuring people have the basic skills they need in order to meet future job requirements.

The COVID-19 pandemic and the resulting economic crisis have accelerated some pre-existing trends in the labor market, including the adoption of new technology and the deepening of income inequality.

Even before the pandemic, economists had identified automatization and the adoption of new technologies as major drivers of change in labor markets and the nature of jobs. New evidence shows that firms are responding to the pandemic economic crisis by

adopting more technology. According to a [2020 working paper by the World Bank](#), “around 34% of firms have increased or started the use of internet, social media, and digital platforms; and 17% of firms have invested in new equipment, software, or digital solutions in response to the pandemic.”

Similarly, *National Geographic* magazine reports that demand for robots has surged around the world. As of early July 2021, robots of all sorts were directly involved fighting the pandemic in at least 33 nations, according to Robotics for Infectious Diseases. The World Economic Forum reports that 50% of employers intend to increase their adoption of automation. Just in the first quarter of 2021, orders for robots in North America increased 20% as compared to the same period in 2020.¹ In part, this reflects efforts to accommodate remote and home-based work, but the investments in new equipment, software, or digital solutions also suggest that pre-pandemic trends have accelerated and many jobs that were lost during the pandemic may not return.

The reality of all this is that some workers will be displaced by new technologies.

This is not a new phenomenon. Adoption of new technology, augmentation of human work with new tools, and adaptation by employers and workers in the face of new technologies are processes that have repeated time and time again through the history of this state and country.

As firms incorporate new technologies, more and more of the labor market is quickly entering the digital space, either by teleworking or by supplying work through digital platforms.

These changes affect workers differently. The key idea to remember is that technology can put many functions of certain jobs, if not the whole job, at risk.

Those employed in jobs which are intensive in routine manual tasks (e.g., factory workers) and routine tasks (clerks and administrative workers) are quickly being replaced by machines and software.

Among the most vulnerable jobs to automation are those in office administration, production, transportation, and food preparation. Such jobs are deemed “high risk,” with over 70 percent of their tasks potentially automatable, even though they represent only one-quarter of all jobs.

The remaining, more secure jobs include a broader array of occupations ranging from complex, “creative” professional and technical roles with high educational requirements, to low-paying personal care and domestic service work characterized by non-routine activities or the need for interpersonal social and emotional intelligence.

¹ Don Lee, “As Covid-19 wanes, employers are accelerating the use of robots. Where does that leave workers? *Los Angeles Times*, May 4, 2021. <https://www.latimes.com/politics/story/2021-05-04/covid-automation-robots-trends-effects-on-workers>

The Role of Adult Education

The following disruptions are currently happening that are expected to continue:

- At least partial task substitution and change within occupations will be widespread. That means most workers will need to continually learn and adapt on the job and to seek new positions.
- This widespread disruption will require workers to be lifelong learners as they reorient from existing tasks and jobs to new ones. Millions of workers will face substantial work crises, dislocation, and stints of unemployment or long-term displacement.
- Lower-education and lower skill workers in routine-manual occupations like manufacturing, transport, and food and accommodation will be especially vulnerable.
- Most importantly, though, this acceleration will require workers to develop a constant learning mindset and use it to work both with machines, and in ways machines cannot. Workers will need to take a new approach to learning and skills development.

These disruptions will exacerbate weaknesses of our most vulnerable workers. First and foremost, illiteracy will negatively and more significantly affect our economy, workers' opportunities, and workers' resiliency

According to the U.S. Department of Education, 54% of U.S. adults 16-74 years old - **about 130 million people** - lack proficiency in literacy, reading below the equivalent of a sixth-grade level. That's a shocking number for several reasons, and its dollars and cents implications are enormous because literacy is correlated with several important outcomes such as personal income, employment levels, health, and overall economic growth.

America's low literacy crisis is largely ignored, historically underfunded and woefully under-researched, despite being one of the great solvable problems of our time.

Low literacy prevents millions of Americans from fully participating in our society and our economy as parents, workers and citizens. It lies at the core of multigenerational cycles of poverty, poor health, and low educational attainment, contributing to the enormous equity gap that exists in our country. It is estimated that low literacy rates in the US could be costing us \$2.2 Trillion annually – more than the Biden administration's entire stimulus package.

[A recent study](#)² by Dr. Jonathan Rothwell, principal economist at Gallup, estimates the gains in GDP that could result from improving adult literacy rates for the nation as a whole, as well as in the individual states and major metropolitan areas. Rothwell relied

² Johnathan Rothwell, "Assessing the economic gains of eradicating illiteracy nationally and regionally in the United States." *Barbara Bush Foundation for Family Literacy*. https://www.barbarabush.org/wp-content/uploads/2020/09/BBFoundation_GainsFromEradicatingIlliteracy_9_8.pdf (2020).

on an international assessment of adult skills called the Program for the International Assessment of Adult Competencies (PIAAC) that classifies literacy into several levels.

Adults below or at Level 1 may struggle to understand text beyond filling out basic forms, and they find it difficult to make inferences from written material. Adults who are just below proficiency (Level 2) can read well enough to evaluate product reviews and perform other tasks requiring comparisons and simple inferences, but they're unlikely to correctly evaluate the reliability of text or draw sophisticated inferences. Adults at Level 3 and above are considered fully literate. They're able to evaluate sources, as well as infer sophisticated meaning and complex ideas from written sources.

Income is strongly related to literacy. The average annual income of adults who are at the minimum proficiency level for literacy (Level 3) is nearly \$63,000, significantly higher than the average of roughly \$48,000 earned by adults who are just below proficiency (Level 2) and much higher than those at the lowest levels of literacy (Levels 0 and 1), who earn just over \$34,000 on average. The conclusions drawn from this research show that investing in adult literacy is absolutely critical to the strength of our nation, now and for generations to come.

We know that eradicating illiteracy would yield huge economic benefits. If all U.S. adults were able to move up to at least Level 3 of literacy proficiency, it would generate an additional \$2.2 trillion in annual income for the country, equal to 10% of the gross domestic product.³

If we focused on eradicating illiteracy, areas with the lowest levels of literacy would see the largest gains. States that have a disproportionate share of adults with low levels of literacy would gain the most economically from increasing literacy skills.

Additionally, such a focus would produce big economic gains in large metropolitan areas. The study also found that the nation's largest metropolitan areas – including New York City, Los Angeles, Chicago and Dallas – would all gain at or just above 10% of their GDP by bringing all adults to a sixth grade reading level. Across Pennsylvania, the estimated economic gains are between 5 and 10%.

America has a long history of income inequality, especially between people of different races. The COVID-19 pandemic has weakened the economy, and the murder of George Floyd last summer has fueled the movement to address racial injustice throughout American society, including the workforce. Eradicating illiteracy would not solve every problem, but it would help make substantial progress in reducing inequality in the long-term and give a much-needed boost to our economy. If we are to truly heal from this pandemic, given the current economic and health challenges, there is even more at stake in ensuring that everyone can fully participate in our society.

³ Ibid,

In conclusion, I would like to leave you with this final thought: adult education has always been important but never has it been more critical to the collective success of the workforce development system.

Technological adoption and adaption in the workplace may be inevitable and highlights the need to ensure people have the education they need to meet these new demands.

In addition, AI will never replace the heart and soul that a human being brings to their work, nor can it replace the ability of a human being to learn, to reason, to think, and to make rapid judgement calls that consider incalculable variables in a fraction of a second. But those without basic literacy skills will be left behind. Adult Education is critical to our success.

Thank you, and I look forward to answering your questions and continuing this important conversation.