

BRIDGING THE SKILLS GAP

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Good morning, Chairman Brat, Ranking Member Evans, and distinguished members of the House Small Business Committee's Subcommittee on Economic Growth, Tax, and Capital Access.

My name is Michael Farren, and I am a research fellow at the Mercatus Center at George Mason University. I am grateful for the invitation to discuss issues facing small businesses in the labor market, especially the skills gap that some employers encounter. This issue parallels my forthcoming labor market research, as well as other research published by the Mercatus Center.

There is some disagreement among labor market experts over which skills job applicants are lacking—or if a skills gap even exists—but the discussion of this issue is a useful opportunity to enhance our understanding of the labor market and government policies affecting it.

I offer two suggestions that may help address the skills gap affecting labor markets for small businesses:

- 1. Revise the federal tax code to allow tax deductions for all forms of productivity-enhancing investments, including investment in training workers to perform new jobs.**

The federal tax code encourages businesses to increase productivity by allowing tax deductions for investments in physical capital.¹ It also allows tax deductions for improvements to existing human capital through education or training. However, it does not allow tax deductions for investments that train a worker to do a completely new job.

- 2. Revise government aid programs that might be lowering the supply of workers, thereby contributing to the lack of skilled workers available.**

There is evidence that participation in state and federal disability benefit programs has grown, even as jobs have become safer and the population on average has become healthier. The design of such programs may need to be reevaluated to ensure that they are accomplishing their important mission without creating unintended consequences.

¹ Or stated more properly, such tax deductions lessen the tax burden discouraging capital investments. "Capital" in this case refers to assets or skills that increase the productive potential of an enterprise.

IS THERE A SKILLS GAP?

The first question that needs to be addressed is what is meant by a “skills gap” and whether one actually exists in the first place. This is important because the determination of what skills are missing depends on whom you talk to. The skills gap is often conceived of as being a lack of technical knowledge, such as familiarity with computer software or healthcare training.² For example, the National Federation of Independent Business reported that 45 percent of small businesses surveyed in early 2017 were unable to find qualified job applicants.³ In addition, a 2016 survey released by workplace analytics firm PayScale and executive development firm Future Workplace found that a majority of hiring managers believed that recent college graduates lacked functional skills, such as critical thinking and writing proficiency.⁴ Furthermore, much discussion has revolved around a deficit in “soft” skills such as teamwork, communication, and work ethic.⁵

Responding to this, some researchers and commentators have suggested that the skills gap is actually an “awareness gap,” because it is difficult for job applicants to communicate their talents and abilities to employers.⁶ Similarly, others propose the issue is best understood as a coordination problem between an employer’s specific needs and workers’ training.⁷ Recent academic research supports this idea, finding that the skills gap is confined to a minority of companies needing workers with highly specialized skills, rather than a systematic skill deficiency across the entire workforce.⁸

CAUSES OF THE SKILLS GAP

It’s possible that all these different perspectives are accurate. Newly graduated workers may have focused too much on excelling in their individual schoolwork, to the detriment of learning how to work effectively in a team environment. Furthermore, the teen employment rate began a precipitous decline around the year 2000, meaning that workers from the “millennial” generation would tend to have less work experience than workers from previous generations. The shift toward additional schooling and away from early employment could contribute to the observed gap in “soft” skills.⁹

At the same time, schooling might not be teaching students the exact skills necessary for the work that employers need done. This would be especially true if the job requires software expertise that rapidly changes every few years.¹⁰ Some employers’ hiring processes may contribute to the problem by being overly focused on applicants’ technical skills, thereby screening out job candidates who have strengths in other areas or better-developed soft skills.¹¹

Furthermore, because the modern economy tends to reward skill specialization rather than broad-based expertise, workers may seek a narrowly focused mastery rather than an expansive skill set. This would support the argument that manufacturers in particular are having a difficult time finding

² Jon Swartz, “Businesses Say They Just Can’t Find the Right Tech Workers,” *USA Today*, March 28, 2017.

³ Rob Kaplan, “America Has to Close the Workforce Skills Gap,” *Bloomberg*, April 12, 2017.

⁴ Jonathan Berr, “Employers: New College Grads Aren’t Ready for Workplace,” Moneywatch, *CBS News*, May 17, 2016; Payscale and Future Workplace, “2016 Workforce-Skills Preparedness Report,” May 17, 2016, <http://www.payscale.com/data-packages/job-skills>.

⁵ Lydia Dishman, “These Are the Biggest Skills That New Graduates Lack,” *The Future of Work*, *Fast Company*, May 17, 2016; Payscale and Future Workplace, “2016 Workforce-Skills Preparedness Report.”

⁶ Ryan Craig and Troy Markowitz, “The Skills Gap Is Actually an Awareness Gap -- And It’s Easier to Fix,” *Forbes*, May 17, 2017.

⁷ Andrew Weaver, “The Myth of the Skills Gap,” *Business Impact*, *MIT Technology Review*, August 25, 2017.

⁸ Andrew Weaver and Paul Osterman, “Skill Demands and Mismatch in U.S. Manufacturing,” *ILR Review* 70, no. 2 (March 1, 2017): 275–307.

⁹ In defense of “millennials,” however, it should be considered whether every generation of managers might generally view the rising generation of youthful workers as being somewhat deficient compared to their own generation.

¹⁰ James Bessen, “Employers Aren’t Just Whining – the ‘Skills Gap’ Is Real,” *Harvard Business Review*, August 25, 2014.

¹¹ Ryan Craig, “Blame Bad Applicant Tracking for the Soft Skills Shortage at Your Company,” *TechCrunch*, March 5, 2017.

workers who have the right combination of skills—practical, tool-using abilities; IT expertise; and teamwork aptitude—needed to be effective in modern manufacturing.¹²

Unfortunately, other problems may also be contributing to the existence of a skills gap. Before workers choose to invest in schooling or training to develop new skills, they need to have a reasonable expectation that the investment will pay off. Essentially, workers face a guessing game wherein they have to forecast what skills will be needed by employers in the future. In this case, guessing wrong can actually be worse than not playing the game at all. It might result in workers' time investment being wasted, squandering the earnings and the skills they could have developed at different jobs. Even worse, they may have financed the education with loans, leaving them with debt in addition to unmarketable skills. As a result, workers will tend to avoid investing in skill acquisition that doesn't have a high likelihood of paying off.

There is some evidence that many younger workers have indeed “guessed wrong.” Over the past decades there has been a rise in “underemployment”—highly trained or educated persons working in jobs that do not require the college degrees or training certifications they possess.¹³ This suggests that many workers have indeed paid for education investments that, to some degree, were wasted.¹⁴

A contributing factor to the skills gap could be the declining labor force participation rate (LFPR). The national prime-age male LFPR has declined from around 96 percent in 1970 to 88.5 percent in 2016.¹⁵ Most of the decrease corresponds to more men reporting problems with physical or mental disability and a corresponding inability to work.¹⁶ If the men leaving the workforce are generally older and more experienced, especially in jobs that are increasingly technical-skill intensive like mining, manufacturing, and construction, then their absence might contribute to a skills gap, especially if they would have been responsible for training less experienced workers.

Forthcoming research from the Mercatus Center suggests that increased participation in state and federal disability benefit programs is correlated with the number of prime-age men reporting that disability prevents them from working. The increased participation in disability benefit programs has occurred despite falling mortality and injury rates and general improvements in health status for prime-age men.¹⁷ If government aid programs have contributed to reduced labor force participation, and if those workers leaving the labor force are more likely to be experienced or otherwise higher skilled, then such programs may bear some responsibility for the skills gap that employers face.

¹² Jeffrey J. Selingo, “Wanted: Factory Workers, Degree Required,” *New York Times*, January 30, 2017, Education Life.

¹³ Alexia Elejalde-Ruiz, “Nearly Half of U.S. Workers Consider Themselves Underemployed, Report Says,” *Chicago Tribune*, June 28, 2016.

¹⁴ This situation might simultaneously indicate that employers in general did not need the number of workers with the given degrees or training certifications—that the skills were indeed valuable, but job seekers oversupplied the market. However, this explanation is essentially equivalent to saying that some workers, though not all, made the wrong education investment. On the other hand, it should be noted that advanced education, even if it is not relevant to the job in question, may be a signal to the employer of a generally higher-quality worker, giving those candidates who invested “wrongly” an advantage over other candidates who did not make the “wrong” decision.

¹⁵ Prime-age men—those between the ages of 25 and 54—are generally expected to have the highest LFPR. Women's prime-age LFPR peaked in the late 1990s and has slightly declined since that time. Scott Winship, “What's Behind Declining Male Labor Force Participation: Fewer Good Jobs or Fewer Men Seeking Them?” (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, forthcoming).

¹⁶ It should be noted that some decrease in the prime-age male LFPR has been owing to men retiring early or leaving the workforce owing to family responsibilities, but increasing disability by far represents the largest driver of declining LFPR; Winship, “What's Behind Declining Male Labor Force Participation?”

¹⁷ Winship, “What's Behind Declining Male Labor Force Participation?”

SOLUTIONS TO THE SKILLS GAP

What, then, can government do to solve the skills gap in the labor market? The answer might be “Not much.” This is because the modern American economy is continuously undergoing “creative destruction” in many industries.¹⁸ The constant development of new technologies and introduction of information technology to established production processes results in a constant churn toward new methods of production. As a result of this process, workers in many industries must regularly update their skills to be able to use the next technological improvement. This kind of economy by its very nature creates an ongoing skills gap as producers need workers trained for the latest iteration of the production process.

However, this kind of skills gap is actually a very good thing. The degree to which innovation and its corresponding technological development are driving the skills gap is an encouraging signal of the strength of the American economy. The last thing we should want is an economy which advances so slowly that most workers can go their entire careers without upgrading their knowledge and skills. This kind of economy would have fewer improvements in healthcare, communications, transportation, and manufacturing, leading to a country that is unhealthy, energy inefficient, and less environmentally sustainable.

Agriculture represents a good example of how the application of increased knowledge and technology has revolutionized an industry and benefited the nation. In 1900, 41 percent of the US workforce worked in agriculture. By 2000 that share had fallen to 1.9 percent, even while productivity more than doubled in just the last 50 years of that time period.¹⁹ And similar to the changes in technology in the modern economy, agriculture shifted from using 22 million work animals in 1900 to using 5 million tractors in 2000.²⁰ Now farmers are even using information technology to more accurately plant and water crops, as well as apply pesticide and fertilizer in more appropriate amounts, resulting in less waste and more sustainable farming practices.²¹ All of this has required farmers to be open to continuous updates to their knowledge and training.

However, there are several areas in which government policy can indeed help solve the skills gap. As I have illustrated, workers face a risky skills investment problem that inhibits them from investing in their “human capital.”²² Reforming existing policy can help reduce the riskiness of this investment in several different ways:

1. Current tax law allows employers and employees to deduct the cost of training and education that makes workers more productive in their current positions. This is similar to the deduction allowed for purchases of physical capital that enable higher productivity. However, this deduction is specifically prohibited for investments in human capital that prepare a person to take on a wholly new type of work.²³ This might help explain the fact that relatively few firms budget for employee training programs.²⁴

¹⁸ The term “creative destruction” was popularized by Joseph Schumpeter: “The opening up of new markets, foreign or domestic, and the organizational development from the craft shop to such concerns as U.S. Steel illustrate the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism.” *Capitalism, Socialism, and Democracy* (New York, NY: Harper and Brothers, [1942] 1950), 83.

¹⁹ US Department of Agriculture, *The 20th Century Transformation of US Agriculture and Farm Policy*, June 2005.

²⁰ *Ibid.*

²¹ US Department of Agriculture, *Farm Profits and Adoption of Precision Agriculture*, October 2016.

²² Human capital is a general term for investments in education or training that make a person more productive, in much the same way that investments in physical capital (e.g., machines) can make a factory more productive.

²³ Internal Revenue Service, *Publication 970, Chapter 12: Tax Benefits for Education*, 2016.

²⁴ Udemy for Business, *At the Breaking Point: The State of Corporate Training Programs in America*, March 26, 2015.

If tax laws were changed to allow either workers or employers to deduct the cost of training to perform a new job, then employers would have much greater incentive to offer the specific training their firm requires, rather than expecting the employee to start with all of the requisite skills.²⁵

2. To the extent that current government aid programs inappropriately reduce the supply of skilled workers, they should be reformed to remove the disincentives they create.²⁶ Importantly, the goal should be to ensure that those who are truly disabled are appropriately supported while encouraging those who can work to do so.

CONCLUSION

It seems indisputable that a skills gap does exist in the labor market, but importantly, this issue is probably best characterized as being unique to each company. And since each individual firm has the best information on what particular skills it needs, the best path forward from a government policy perspective would be to change tax laws to encourage companies to invest in worker training. Importantly, though, any tax code changes should be broadly based and available to all workers and employers, rather than favoring some industries or skills over others. Additionally, programs and policies that reduce the potential workforce available to employers should be reformed.

Lastly, policymakers should keep firmly in mind that a skills gap may not be entirely a bad thing, if it is a symptom of a robust and innovative economy. Among all economic problems, this is a good one to have.

²⁵ Importantly, such training programs, if provided using tax deductions, should not have stipulations attached to the training, such as minimum tenure requirements or noncompete contracts. Such conditions would result in a decreased dynamism in the labor force, meaning that workers would be inhibited from moving to the companies where they would be the most productive (and similarly, companies might inadvertently keep less productive employees). This would result in decreased economic growth. Furthermore, disallowing such stipulations for training increases the competitiveness of the labor market by reducing the bargaining power of employers. This means that they would have to focus more on keeping employees voluntarily through wage increases, benefits, and healthy working environments.

Additionally, existing tax law generally requires that deductions for investments in physical capital be taken over time, rather than in the year in which the investment is made. This is reasonable for physical capital, which is property owned by the firm. However, investments in human capital cannot be owned by the firm and contain an inherent risk of loss if the employee leaves the firm, suggesting that human capital investments should be allowed to be fully deducted in the year in which they are made.

²⁶ Scott Winship, "How to Fix Disability Insurance," *National Affairs*, 2015.