Testimony of Harry J. Holzer Before the Subcommittee on Digital Commerce and Consumer Protection, Committee on Energy and Commerce, US House of Representatives – May 23, 2017

Chairman Latta, Ranking Member Schakowsky, and Committee members:

Thank you for inviting me today to share my thoughts on how new digital technologies can affect employment in business delivery services, and on how new digital technologies can affect the labor market more broadly.

I'd like to make the following points:

1. *Employment in trucking, courier services and warehousing has recently been growing quite rapidly, with relatively good jobs being created, because of growing e-commerce. Any potential loss of delivery jobs caused by drone technologies remains very speculative (in terms of its timing and magnitude) and will likely not reverse most of these employment gains*.

Employment in these services has grown by nearly 100,000 jobs over the past year, and average wages in these jobs generally exceed those in general retail.[1] This trend will likely continue for years to come, as e-commerce continues to grow. The development of drone technology to deliver products and its adoption by employers remain very uncertain right now and are unlikely to halt or reverse such growth over the next several years.

2. *More broadly, disruptive technologies tend to raise our labor market productivity and living standards. Given how flat productivity growth has been in recent years, the development of technologies by employers that will enhance productivity should be welcomed.*

As economist Jason Furman (2016) has pointed out, digital technologies that can raise our productivity growth should be welcomed into the workforce. Productivity has been fairly flat for over a decade (Baily and Bosworth, 2015), and it is very difficult to have strong real earnings growth for workers over time if productivity growth remains so weak.[2]

3. *Historically, the fears of mass displacements and unemployment that might be caused by new technologies in the workplace have almost always been overblown. New jobs are generally created when automation causes others to disappear, and workers whose skills "complement" the new technologies fare better in the job market afterwards (while those for whom the technologies are "substitutes" fare worse*).

Fears of mass worker displacement due to automation are historically associated with the Luddites in 19th century Britain. We have periodically had automation scares in the US as well – such as in the late 1950s and early 1960s. Fears of technologically based offshoring about a decade ago were also

[1] See Mandel (2017). Employment in trucking, courier services and warehousing rose from 2.986 million in April 2016 to 3.080 in April 2017 (Bureau of Labor Statistics, 2016 and 2017).

[2] Baily and Bosworth show that annual productivity growth since 2005 has averaged only about 1.5 percent, well below our historical average. It is also clear that the real earnings growth of workers tends to be correlated with productivity growth over time. It is possible that our measurement of productivity growth is flawed, leading us to understate it, though it is not clear that such biases now are greater than they have been in earlier decades.

overblown.[3] This is true because the magnitudes and speed of such developments are often overstated in advance; and also because, when implemented, a variety of market-based adjustments in jobs occur.

Specifically, new technologies reduce the costs and prices of producing goods and services, thereby raising the real earnings of consumers. In turn, new spending by them creates more jobs. Workers whose skills enable them to "complement" technologies – such as technicians and engineers, as well as those with important creative or social skills – tend to find more employment and higher wages afterwards. In contrast, workers whose skills cause them to be "substitutes" for such technologies – like unskilled assembly line or clerical workers to date – are often hurt. Workers and their employers have incentives to turn more of them into technology "complements."

4. *Still, many millions of workers – particularly less-educated men – have been hurt by technological change in the past four decades – either because they have been directly displaced from good-paying jobs or the labor market more broadly has become less rewarding to them*.

Those specifically displaced by new technologies often experience a period of lengthy unemployment and lower wages if/when they become reemployed.[4] But, more broadly, the real earnings of men with high school diplomas or less have stagnated or fallen over the past four decades, and they have certainly fallen relative to every other major group in the labor force. Though economists disagree somewhat on exactly what have been the causes of these earnings declines, most believe that technological change has been a primary cause. And, in response to stagnating or declining wages, millions of prime-age men have left the workforce. This hurts themselves, their families and communities, as well as the US economy overall.[5]

5. *A range of public policies should therefore be adopted and strengthened to help to workers hurt by new technology make adjustments to the new labor market. And policies to ensure that workers share in whatever productivity growth is generated over time are essential as well*.

The most important set of policies to pursue in response to rapid technological change are in education and workforce development, to help workers adjust to new labor market realities. Helping workers attain postsecondary credentials with strong labor market value must be our top goal; giving them a broad skill set that will help them adjust to unanticipated labor demand shifts in the future, as a result of automation and other forces, is a crucial part of that process. Helping displaced workers retrain for new jobs (through "lifelong learning") is also critical, as are strong labor market information and services to help them find new jobs.[6]

For workers displaced by technology, a robust system of Unemployment Insurance remains critical, though perhaps with some reforms to encourage those out of work to build new skills and regain

[3] See, for instance, Blinder (2006).
[4] Jacobson et al. (1993) show that, workers displaced from jobs who had accumulated some significant tenure (or seniority) on the job lose, on average, about 25% of their earnings when they become reemployed.
[5] The real wages of men with high school or less education in the US have clearly fallen since 1980 (Holzer and Hlavac, 2012), though measures of compensation (that include the value of health insurance and other benefits) show stagnation rather than clear declines. But, by all measures, their earnings have declined relative to those of every other major demographic group. For a discussion of declining labor force activity among less-educated men see Doar et al. (2017).
[6] See Holzer (2017).

employment soon. Wage insurance, which replaces some portion of the wages that workers lose when they become reemployed at new jobs, should be expanded.[7]

Finally, policies that help ensure that workers share in whatever productivity gains are generated by new technologies are important as well. These include protections for the right to collectively bargain in the public or private sectors, as well as limits on anticompetitive practices by employers (such as "noncompete clauses" in their contracts with workers).[8]

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[7] Potential reforms to the Unemployment Insurance system to encourage faster reemployment are discussed by Kugler (2015). The document by the Employment and Training Administration (2009) indicates reforms of Unemployment Insurance that make it easier for workers to also receive Pell grants for higher education and training while being unemployed.

[8] See Dougherty (2017) for a discussion of "noncompete clauses" and how to they potential wage growth for up to a fifth of US workers.

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