

Congressional Roundtable: How Retail Automation Will Impact Workers of Color

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Thank you very much for inviting me to speak on this crucial topic. A recent paper from the Joint Center for Political and Economic Studies has examined the important link between race and jobs at high risk for automation over the next 10-20 years. But as that paper points out, automation can create new jobs as well, and either increase or decrease racial inequality.

I will focus on how automation in retail—the shift to ecommerce—is affecting black and Hispanic workers today, what the future might look like, and the appropriate role of policy in improving access to opportunities for jobs and wealth creation.

Today, automation in retail is creating decent-paying jobs by shifting hours from the unpaid household sector to the paid market sector. It turns out that many Americans are willing to pay a substantial amount of money to have someone else do their shopping and driving for them.

By my calculation, the three main ecommerce industries—electronic shopping (websites), couriers and messengers (local delivery), and warehousing and storage (fulfillment centers)—have added 632,000 full-time-equivalent (FTE) jobs since 2007. Brick-and-mortar retail has lost 94,000 FTE jobs over the same stretch, for a cumulative gain of 538,000 jobs.

The latest numbers from the BLS, released on May 4, 2018, show the same pattern of growth over the past year (Table 1 and Table 2). Comparing the first quarter of 2018 with the first quarter of 2017, employment in brick-and-mortar retail shrank by 8,000—but employment in the ecommerce industries rose by 114,000, for a combined gain of 105,000.

Available data suggests that people of color are benefitting from this shift to ecommerce. Roughly 24% of workers in ecommerce industries identify as black or African-American, compared to 12% of workers in brick-and-mortar retail. Roughly 20% of workers in ecommerce industries identify as Hispanic or Latino, compared to 17% of workers in brick-and-mortar retail. (Figure 1) Moreover, ecommerce industries are hiring workers of color at a rapid rate (Figure 2). This suggests that ecommerce is creating new positive opportunities for workers of color.

More important, ecommerce workers get paid higher wages. Our analysis of BLS figures shows that workers at ecommerce fulfillment centers get paid roughly 30% more than brick-and-mortar retail in the same county. That’s an important gain, given that real wages in retail have barely risen for decades. Nationally, the average weekly wage for production and nonsupervisory workers in the ecommerce industries is \$685, compared to \$464 for brick-and-mortar retail.

What’s true is that the set of skills needed for ecommerce is not the same set as needed for traditional retail. Workers in ecommerce have to be “tech-enabled”; they need to be comfortable working alongside robots, just like manufacturing workers in the past had to be comfortable working alongside machines.

What does the future look like? We probably have five more years of job growth in ecommerce, as existing retailers beef up their own ecommerce operations. But changes in retail and ecommerce will produce changes in manufacturing as well.

As distribution of goods becomes cheaper and more efficient, we may see the rise of a new generation of small-scale local manufacturing operations. Powered by 3D printing and digitization, these factories could make a wide variety of custom goods, measured in local stores and delivered directly to the customer. How much would you pay for a supply of shoes in different styles that are manufactured in a local factory to fit perfectly? We will look back on this era when uncomfortable shoes are mass-produced in China and shipped 10,000 miles in giant containers as absurd.

This shift will create new employment opportunities. First, retail salespeople will need to walk buyers through the measurement and customization process. These jobs will need a combination of technical, design, and people skills. Second, the new local manufacturing operations will create jobs that will require comfort with new materials and new production processes. Flexibility and adaptability is important.

Third, the next wave of factory automation will create new opportunities for local entrepreneurs and wealth creation. Our goal is to make this new wave of wealth creation accessible to everyone. That means setting up 3D printing centers locally, equipped with the latest technology, to give all potential entrepreneurs a chance to experiment cheaply, not just those who have access to capital.

In terms of policy, this last piece is exceptionally important. To reduce inequality, we need more than job training—we need to open up the opportunities for innovation and entrepreneurship.

Table 1: Retail + Ecommerce Keeps Generating Jobs

	brick- and- mortar	ecommerce industries*	retail + ecommerce
	<u>change, 1Q17-1Q18, thousands of jobs</u>		
All jobs	-8	114	105
Production and nonsupervisory jobs	68	109	176
FTE	94	103	197
FTE (P&NS)	190	72	262

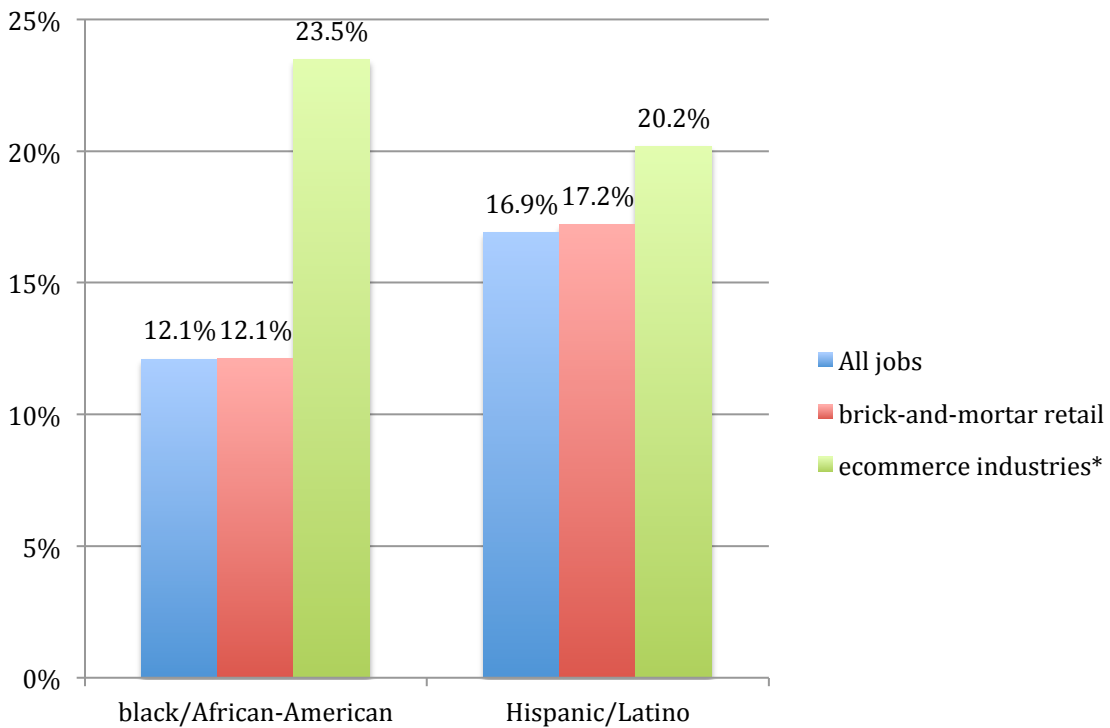
* Ecommerce industries include electronic shopping, couriers and messengers, warehousing and storage. Data: BLS Analysis: PPI

Table 2: Retail + Ecommerce FTE Show Strong Growth

	brick- and- mortar	ecommerce industries*	retail + ecommerce	all private sector
	<u>percentage change, 1Q17-1Q18</u>			
All jobs	-0.1%	5.6%	0.6%	1.8%
Production and nonsupervisory jobs	0.5%	6.3%	1.2%	1.7%
FTE	0.8%	5.2%	1.4%	2.1%
FTE (P&NS)	2.0%	4.3%	2.3%	2.0%

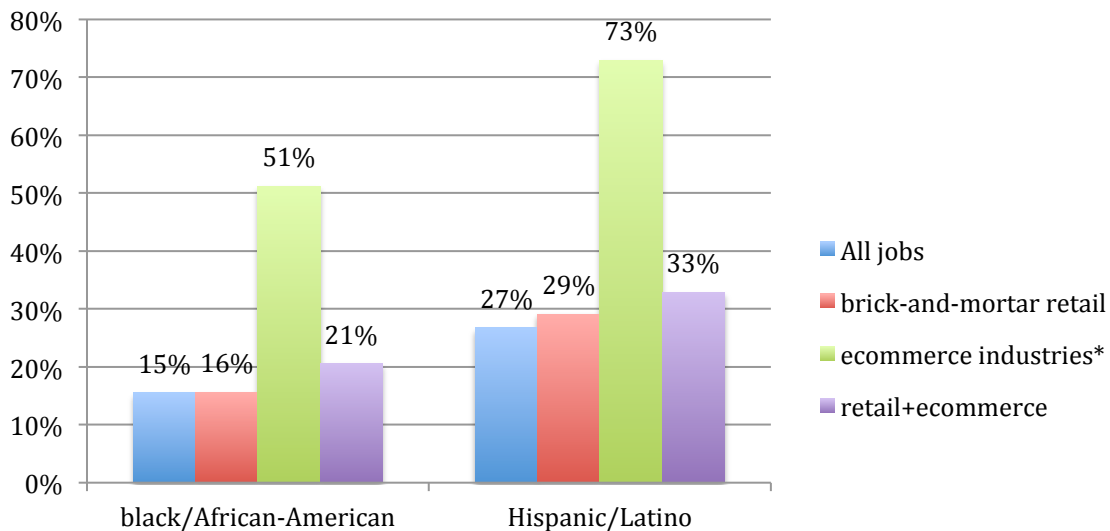
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Figure 1: Workers of Color Are An Important Part of Ecommerce Industries (share of jobs, 2017)



*Electronic shopping, couriers and messengers, warehouse and storage.
Data: BLS Analysis: PPI

Figure 2: Workers of Color Have Faster Job Growth in Ecommerce Industries* (change in employment, 2007-2017)



*Electronic shopping, couriers and messengers, warehouse and storage.

Data: BLS Analysis: PPI

References

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