

Delivering a Safer Future of Work in the Warehouse and Supply Chain Industries

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The warehouse industry is a growing area of the U.S economy, employing approximately 1,190,000 workers.¹ These workers make up one piece of the supply chain which refers to the sequence of processes in the production and distribution of goods. These processes generally consist of taking raw materials, manufacturing or assembling them, warehousing them, and delivering them to consumers.

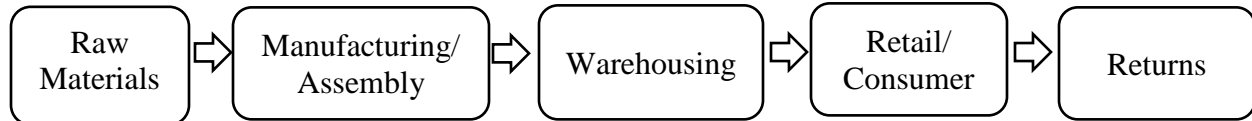


Figure 1.1 Simplified Supply Chain²

Warehouse Operations

Warehousing refers to the process of storing goods in a physical building. It includes work activities such as receiving, put-away, storage, picking and shipping. Traditional warehouse work involves pallets and full boxes of goods moving from one area of the warehouse to another with an emphasis of storage just-in-case.³ On the other hand, e-commerce warehouses are organized so that goods arrive to consumers just-in-time.⁴ E-commerce orders consist of multiple products which may be located throughout different parts of a warehouse. The products must be consolidated, picked, packed and shipped together, a process called each-picking order assembly.⁵

Warehouse Workers, Wages and Working Conditions

Demographic data demonstrates that warehouse workers tend to be young men of color.⁶ Males comprise 72% of the warehouse workforce. Sixty percent of the workforce consists of Latinx or Black workers. Over half of the workforce is younger than 35 years of age.

Real wages (wages adjusted for inflation) for warehouse workers have decreased over the past 20 years.⁷ Median hourly wages range from \$13.71 to \$16.96. Warehousing operations hire workers directly and also utilize temporary warehouse workers hired through third-party

¹ Bureau of Labor Statistics, U.S. Department of Labor: “Industries at a Glance: Warehousing and Storage: NAICS 493,” <https://www.bls.gov/iag/tgs/iag493.htm>.

² Beth Gutelius and Nik Theodore, *The Future of Warehouse Work: Technological Change in the U.S. Logistics Industry* (hereinafter “*The Future of Warehouse Work*”) (UC Berkeley Labor Center; Working Partnerships USA, October 2019), <http://laborcenter.berkeley.edu/future-of-warehouse-work/>, at p. 17.

³ David Jafee and David Bensman, *Draying and Picking: Precarious Work and Labor Action in the Logistics Sector* (March 2016) 19 WorkingUSA: The Journal of Labor and Society 57, 62.

⁴ *Id.*

⁵ *The Future of Warehouse Work*, *supra*, at p. 19.

⁶ *Id.* at pp. 24-25.

⁷ *Id.* at pp. 22-23.

temporary staffing agencies. Temporary warehouse workers tend to be paid less than direct-hire workers.⁸ Unionization rates in the warehousing industry have decreased from 14% in 1990 to 6% in 2018.⁹

Warehouse workers suffer injuries at a rate nearly two times the national average of other private industries, higher than coal mining, construction, and most manufacturing industries.¹⁰ Amazon employs approximately 125,000 full time warehouse workers throughout the nation.¹¹ The injury rate at Amazon facilities is three times the national average.¹² Every year, one out of every ten Amazon workers suffers a workplace injury.¹³ These injuries caused Amazon workers to miss an average of six-and-a-half weeks of work to recover. Reports indicate that the higher injury rates at Amazon facilities are connected to Amazon's rate quotas, employee monitoring, strict attendance policies, and mandatory overtime during peak season (the weeks before and after the Christmas holiday).¹⁴

Technology and Warehouse Work

Recent research suggests that technology and e-commerce will affect warehouse work pace, management, and work tasks.¹⁵ E-commerce consumers expect shipments to arrive quickly. This increases the pace warehouse workers must move to assemble customer orders. In some warehouses, worker activity is tracked with wearable devices, robots, and labor management software. For example, Amazon facilities use algorithms and tracking systems to monitor worker productivity.¹⁶ In these facilities, workers are required to keep up with a rate measured by number of boxes packed each hour. If a worker falls behind, Amazon's management software automatically generates warning letters, identifies workers for retraining, and even terminates employees—all without any human management interaction. Technology has also been used to simplify warehouse work.¹⁷ For example, some facilities use autonomous mobile robots to help simplify the picking process. The robot leads the worker through the warehouse as the worker walks behind the robot and picks items for the customer's order.

California Developments Related to the Warehouse and Supply Chain Industries

In California, the movement of most goods starts at the Ports of Los Angeles or Long Beach. The goods are shipped in a container to one of these ports and then placed on a truck to leave the port. Many of these trucks head east toward the Inland Empire where the goods are warehoused.

⁸ *Id.* at p. 51.

⁹ *Id.* at p. 22.

¹⁰ Bureau of Labor Statistics, U.S. Department of Labor: "Injuries, Illnesses, and Fatalities 2018," https://www.bls.gov/iif/oshwc/osh/os/summ1_00_2018.htm.

¹¹ Colin Lecher, *How Amazon automatically tracks and fires warehouse workers for "productivity"* (April 2019), <https://www.theverge.com/2019/4/25/18516004/amazon-warehouse-fulfillment-centers-productivity-firing-terminations>.

¹² *Packaging Pain: Workplace Injuries in Amazon's Empire*, (hereinafter "*Packaging Pain*") (December 2019) <https://www.amazonpackagingpain.org/the-report>, at p. 7.

¹³ *Id.*

¹⁴ *Id.* at p. 18.

¹⁵ *The Future of Warehouse Work*, *supra*, at pp. 8-9.

¹⁶ *Packaging Pain*, *supra*, at p. 17.

¹⁷ *The Future of Warehouse Work*, *supra*, at p. 56.

Recent reports have brought attention to the human impact of supply chain operations in California. These reports highlight the high incidence of workplace injuries in Amazon facilities in the Inland Empire, Fresno, and Sacramento.¹⁸ In 2019, Assemblymember Jose Medina authored and Governor Gavin Newsom signed AB 485 which required local agencies to take certain actions to inform the public before approving or granting economic development subsidies of \$100,000 or more for warehouse distribution centers.¹⁹ Within the past two months, several lawsuits have been filed to challenge the approval of the Eastgate Air Cargo Logistics Center planned for the San Bernardino International Airport, which would build a 658,000 square-foot air cargo warehouse and would add 500 daily truck trips and 26 daily flights (currently there are only five flights to and from the airport).²⁰ These lawsuits assert that additional study of the project's impact on surrounding communities, particularly as it relates to pollution, is required.

The warehouse and supply chain industries are vital to the state and national economies. In 2018, Amazon generated an estimated \$7.2 billion sales from the four-county Los Angeles region alone.²¹ On the other hand, substandard working conditions for warehouse workers such as wage stagnation, faster work pace, worker surveillance, and high injury rates may need policy interventions.

Questions to Consider

- 1) What role can employers, employees and/or the State play in creating a safer future of work in the warehouse and supply chain industry?
- 2) What are effective policy interventions to help reduce the rate of serious injuries in warehouse work?
- 3) What training initiatives will be necessary to help workers whose basic job tasks have changed due to new technology?
- 4) What can be done to improve the quality of warehousing and supply chain jobs?

¹⁸ Will Evans, *Ruthless Quotas at Amazon Are Maiming Employees* (December 2019) *The Atlantic*, <https://www.theatlantic.com/technology/archive/2019/11/amazon-warehouse-reports-show-worker-injuries/602530/>; Manuela Tobias, *Injuries at Fresno's Amazon Warehouse Double California's Industry Average* (January 19, 2020) *The Fresno Bee*, <https://www.fresnobee.com/news/local/article238941159.html>.

¹⁹ Government Code Section 53083.1.

²⁰ "Attorney General Becerra Files Lawsuit Challenging Unlawful Airport Expansion Project at San Bernardino Airport" (February 21, 2020) <https://oag.ca.gov/news/press-releases/attorney-general-becerra-files-lawsuit-challenging-unlawful-airport-expansion>; Economic Roundtable, *Too Big to Govern: Public Balance Sheet for the World's Largest Store* (hereinafter "Too Big to Govern") (November 2019), <https://economicrt.org/publication/too-big-to-govern/>, at p. 29.

²¹ *Too Big to Govern, supra*, at p. 16.