

# Amazon's Disposable Workers: High Injury and Turnover Rates at Fulfillment Centers in California

*Amazon relies on an extreme high-churn model, continually replacing workers in order to sustain dangerous and grueling work pace demands*

## Executive Summary

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Amazon has repeatedly touted its commitment to providing quality jobs, but a growing body of evidence on injuries and turnover at their facilities tells a different story. Amazon workers around the country have reported being subject to unsustainably fast productivity requirements resulting in injury and exhaustion. Workers describe pushing their bodies to the brink to avoid automatic termination for missing quotas.<sup>1</sup> Data from the company's own records have confirmed their accounts showing that Amazon warehouses have stunningly high injury rates.<sup>2</sup>

High turnover is the norm at Amazon facilities. Our analysis of California county-level census data shows that when Amazon opens a fulfillment center, warehouse worker turnover in that county skyrockets. **Counties hosting Amazon fulfillment centers have turnover rates that are much higher than the average rate of turnover for warehouse workers in California and workers in other industries overall in the state.** We find that:

- The average turnover rate for warehouse workers in counties with Amazon fulfillment centers was 100.9 percent in 2017, the latest year for which data are available.<sup>3</sup> In other words, more workers leave their warehouse jobs each year than the total number of warehouse workers employed in those counties.
- This is substantially higher than the turnover rates for warehouse workers overall in California and in the U.S., which are 83.0 percent and 69.8 percent, respectively.<sup>4</sup>
- Turnover rates increased dramatically in counties after Amazon located there. The average turnover rate for warehouse workers in these "Amazon" counties more than doubled, leaping from 38.1 percent to 100.9 percent between 2011—the year before Amazon opened its first fulfillment center in California—and 2017.
- During this same period, turnover for all California warehouse workers (including Amazon) also grew from 42.1 percent in 2011 to 83 percent in 2017. In contrast, overall

turnover for workers in all California industries only rose slightly, from 63.9 percent to 69.8 percent.

- Warehouse workers in California are overwhelmingly people of color, with the large majority being Latinx. Fifty-four percent of warehouse workers in California in 2017 were Latinx. Asian and Black workers represented 9.5 percent and 9 percent, respectively.<sup>5</sup>

What emerges is a troubling picture of Amazon’s business model—one in which the company views its workers as disposable and designs its operations to foster high turnover. Workers who can’t keep up with extreme productivity goals are fired or encouraged to quit. Many workers have to leave their jobs because of injuries. Amazon’s inhumane work pace and repetitive work tasks require a level of physical exertion and strain that takes a high toll on workers’ physical health over time, which is why the company needs to constantly replenish its workforce with fresh bodies. Instead of cultivating workers to stay with the company for the long term, Amazon relies on a high-churn model that uses and discards workers without regard for the cost to their health or potential disruptions to their lives, their families, and their communities.

## Warehouse worker turnover rates rise as high as 100% when Amazon comes to town

NELP analyzed publicly available Census Bureau data for five California counties where Amazon fulfillment centers have had a significant presence in the warehouse sector between 2012 and 2017, the latest year for which data are available. In 2017, the average annual turnover for warehouse workers in counties where Amazon has fulfillment centers exceeded 100 percent (**Table 1**). In other words, in these counties, at least as many workers leave their jobs each year as work at the warehouses. Turnover for warehouse workers in these counties with Amazon facilities is also much higher than the California and national averages for warehouse workers, which were 83 percent and 68.8 percent, respectively, in 2017. It is also much higher than overall turnover for California workers in all industries, which was 69.8 percent in 2017.

**Table 1. Turnover rates for warehouse workers in counties with Amazon fulfillment centers**

County	Amazon Fulfillment Centers	Average Annual Employment	Total Annual Separations	Turnover Rate
San Bernardino	ONT2, ONT3, ONT4, ONT7, ONT9, LGB4, LGB7, SN7, SNA8, LGB5, KRB1, PCA2, SNA4, LAX9*	34,410	33,159	96.4%
Riverside	ONT6, SNA6, SNA9, LGB3, LGB6, XUSO	26,928	28,685	106.5%
San Joaquin	SJC7, PCA1, OAK4, OAK6, SMF3*, SCK1*	15,611	16,302	104.4%
Stanislaus	OAK3	3,058	2,731	89.3%
Sacramento	SMF1	1,762	1,635	92.8%
Average of above counties		~	~	100.9%
<b>All California warehouses</b>		<b>130,282</b>	<b>108,117</b>	<b>83.0%</b>
<b>All California industries</b>		<b>16,624,231</b>	<b>11,595,692</b>	<b>69.8%</b>

Source: MWPVL International, NELP analysis of Census Bureau’s Quarterly Workforce Indicators data. Note: Los Angeles county is excluded because of Amazon represents a small proportion of the warehouse sector there. Average turnover rate of listed counties is weighted by employment. \* denotes fulfillment center opened after 2017, the latest date for which data are available.

Moreover, data show that turnover rates for warehouse workers increase dramatically in these counties in the years after Amazon begins operations there (**Figure 1**):

- In San Bernardino County, Amazon opened fulfillment centers in both 2012 and 2016. From 2012 to 2017, employment in the warehouse sector tripled, and turnover doubled from 48.2 percent to 98.6 percent, the highest level in 20 years of data we examined.
- In Riverside County, Amazon opened a fulfillment center in 2014. From 2014 to 2017, turnover there increased from 68.4 percent to 107 percent.
- In Stanislaus County, Amazon opened a fulfillment center in 2013, and turnover increased from 38.3 percent in 2013 to 89.3 percent in 2017.
- In San Joaquin County, Amazon opened fulfillment centers in 2013 and 2016. Turnover increased from 40.3 percent in 2013 to 104.4 percent in 2017.
- In Sacramento County, Amazon opened a fulfillment center in 2017, and turnover jumped from 35.2 percent in 2016 to 92.8 percent in 2017.

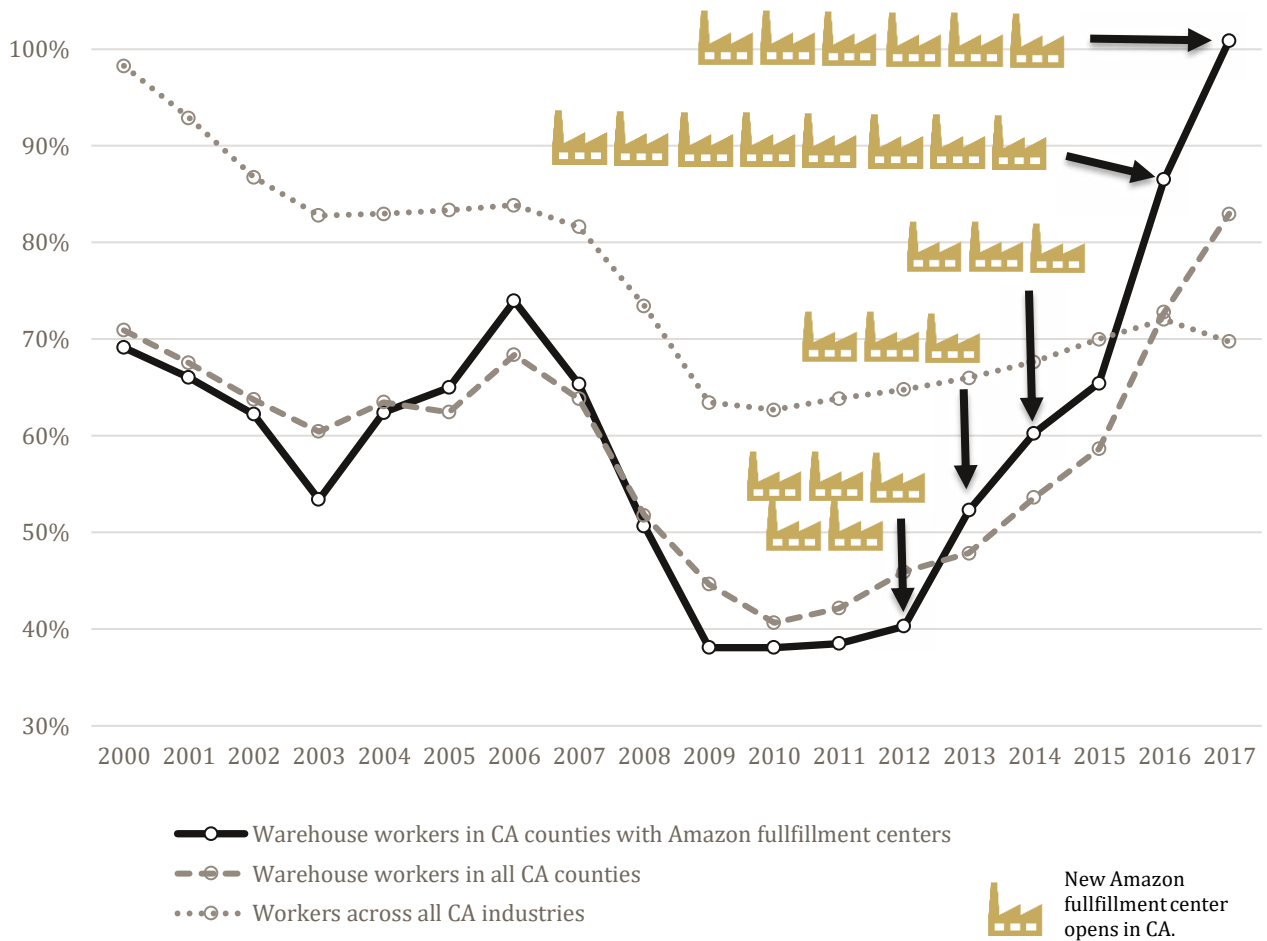
Changes in turnover rate can be related to various factors, including business cycle fluctuations. However, the particularly high rate for this group of workers as compared to the rate for similar workers suggests that Amazon's presence has had a unique impact. In all five counties, warehouse worker turnover in 2017 was at the highest level since 2000 and substantially higher than turnover reached at the height of the last business cycle in 2006 (Figure 1). By contrast, turnover overall for all industries in California has remained relatively steady during this period, hovering between 60 percent and slightly above 70 percent between 2012 and 2017.

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"Amazon Fulfillment Center, Shakopee, Minnesota" by [Tony Webster](#) is licensed under [\(CC BY-SA 2.0\)](#)

**Figure 1. New Amazon fulfillment centers push warehouse worker turnover rates up (Employee turnover in CA, 2007-2017)**



Source: NELP analysis of Census Bureau's Quarterly Workforce Indicators data.  
 Note: Los Angeles County is excluded because Amazon represents a small proportion of the warehouse sector there.

Moreover, turnover patterns at Amazon fulfillment centers around the country confirm that this problem is inherent to Amazon’s disposable worker business model. In Guadalupe County, Texas, and Scott County, Minnesota, very few or no other warehouses existed before Amazon built its facilities (in Schertz, TX and Shakopee, MN), allowing us to more directly assess Amazon warehouse employee turnover by examining county-level turnover data:

- In Guadalupe County, Texas, where Amazon’s is the only warehouse, turnover was 186.4 percent in 2017.
- In Scott County, Minnesota, where warehouses only employed about 100 people in 2015 when Amazon arrived, turnover in 2017 was 193.2 percent; and warehouse employment has climbed to almost 5,000, reflecting employment at Amazon facilities.
- These figures provide the best government data available about the true rate of turnover at Amazon warehouses.

## Stunningly high rates of serious injury at Amazon put workers at risk for life-long health problems

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Workers at Amazon warehouses have an alarmingly high rate of injury, especially serious injuries. A **recent report** by a dozen organizations, using Amazon’s own records of injury and illness, revealed that workers sustain serious injuries (those involving more than first aid treatment) at rates twice as high as the average for other warehouses. Further, Amazon workers sustained the most serious injuries—those that required them to be moved to light duty or miss work—at rates five times the national average for all of private industry. Injured workers at Amazon were forced to miss an average of five-and-a-half weeks of work to recover from their workplace injuries.

The overwhelming majority of serious injuries at Amazon warehouses involve musculoskeletal injuries: sprains, strains, and tears to the shoulder, back, knee, wrist, and foot.

The overwhelming majority of serious injuries at Amazon warehouses involve musculoskeletal injuries: sprains, strains, and tears to the shoulder, back, knee, wrist, and foot. These injuries are linked to jobs that involve highly repetitive, forceful exertions—bending, twisting, and awkward postures—that are common to most of the jobs in Amazon warehouses.

**Further, the types of severe injuries that workers are suffering from are injuries that can stay with workers for the rest of their lives, leading to chronic pain and an elevated risk of reinjury and long-term disability.**

The prospect of suffering a life-long injury is particularly troubling for the younger workers who make up the majority of the warehousing and electronic shopping industry. According to U.S. Census data, 27 percent of workers in the warehousing industry are younger than 25 years old, and 56 percent of warehouse workers are younger than 35 years old. Even more troubling is the fact that Latinx workers are highly over-represented in the workforce, making up more than half (54 percent) of California’s warehouse workforce.

*The Atlantic* interviewed a former Amazon worker who described his experience:

“[One worker] lost 30 pounds working at Amazon because he was on his feet so much, picking items off shelves and putting them in bins, and also packing goods into boxes. His breaks were only 15 minutes, but it would take 10 minutes to get to the break room, so he’d sit on stairs, waiting for the work to begin again. [He] had worked for the postal service, as a disc jockey, and for the U.S. Census, but **working for Amazon ‘was the most brutal, and it took the biggest toll on my body,’** he said.” [Emphasis added.]<sup>6</sup>

Research has shown the links between poor working conditions and turnover. Workers in hazardous workplace conditions, like in Amazon warehouses, are indeed more likely to leave.<sup>7</sup>

## Fired or pushed to quit: disposable workforce as business model

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For decades, Amazon leadership has cultivated a culture of treating workers as disposable parts in a big machine—pushing their minds and bodies until they are no longer useful and then letting them go. According to a survey by PayScale, Amazon has one of the highest employee turnover rates of any Fortune 500 company, with a full half of its workforce working with the company for less than one year. Current and former employees at every level describe a “churn and burn” culture at Amazon, and even CEO Jeff Bezos proudly proclaims, “It’s not easy to work here.”<sup>8</sup>

Amazon’s algorithms and tracking systems constantly monitor worker productivity throughout the workday. In distribution centers, workers are required to keep up with a constantly increasing “rate,” pulling hundreds of items each hour throughout their shifts. When workers fall behind, Amazon’s management software automatically generates warning letters, targets workers for “retraining” and even discharges workers without the involvement of any human manager in the process.<sup>9</sup>

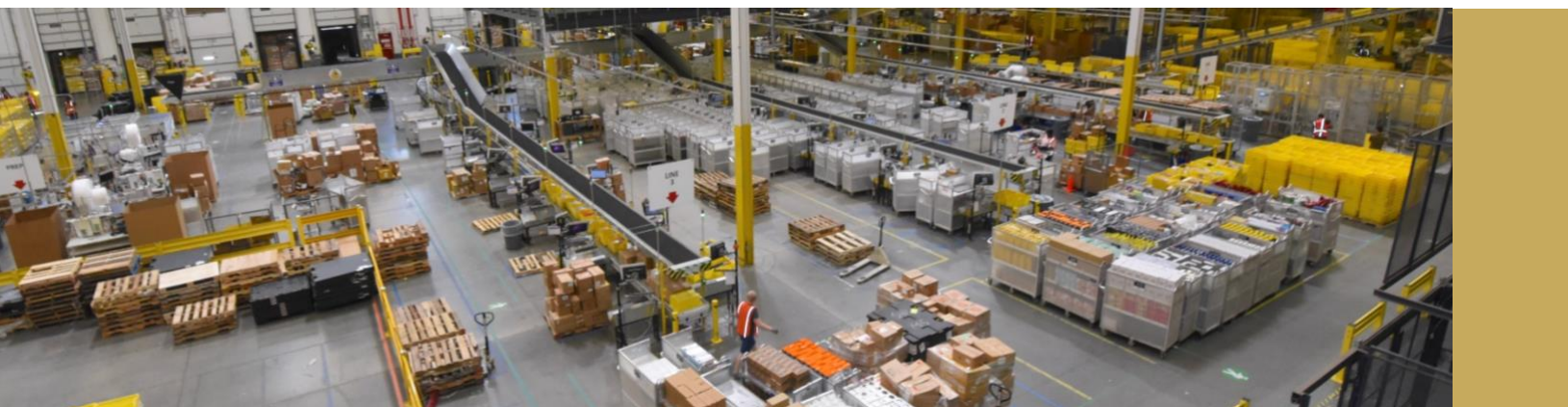
The company also actively encourages workers to quit. Ostensibly, one of the goals of this practice is to open up jobs for newer employees who bring fresh energy and uninjured bodies. Once each year, Amazon offers to pay full-time workers with at least one year of tenure at Amazon fulfillment centers up to \$10,000 to leave their jobs. The tradeoff for workers is that if they accept the offer, they are no longer welcome to work at Amazon ever again.<sup>10</sup>

## Conclusion

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Beyond the negative effects on workers’ health and safety, Amazon’s high-churn system creates other costs that are not borne by the company, potentially putting a strain on public services such as unemployment insurance, public assistance and public health insurance programs and creating instability for workers, their families, and their communities.

Policymakers should act immediately to ensure reasonable and sustainable workload expectations for California’s warehouse workers, who are overwhelmingly people of color. Taking action on this issue is a crucial step towards providing healthy and safe working conditions for workers in an important and growing industry in California.



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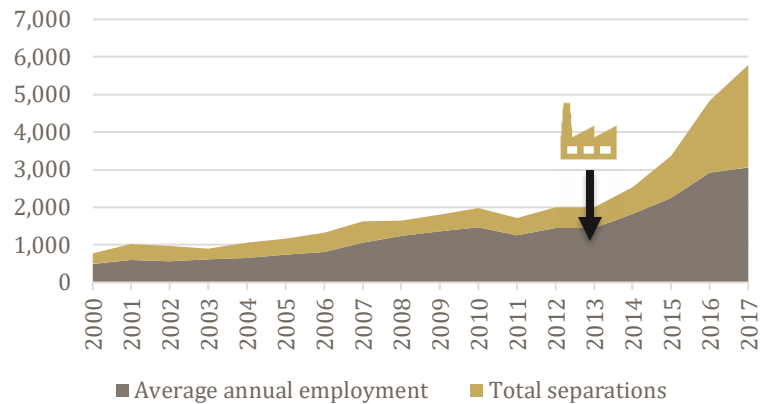
## Appendix

**Table 2. Stanislaus County warehouse employee employment and separations, 2011-2017**

Year	Average annual employment	Total separations	Turnover rate
2011	1,259	457	36.3%
2012	1,452	543	37.4%
2013	1,445	554	38.4%
2014	1,826	699	38.3%
2015	2,251	1,107	49.2%
2016	2,929	1,904	65.0%
2017	3,058	2,731	89.3%

Source: MWPVL International, NELP analysis of Census Bureau's Quarterly Workforce Indicators data. Note: Los Angeles county is excluded because of Amazon represents a small proportion of the warehouse sector there.

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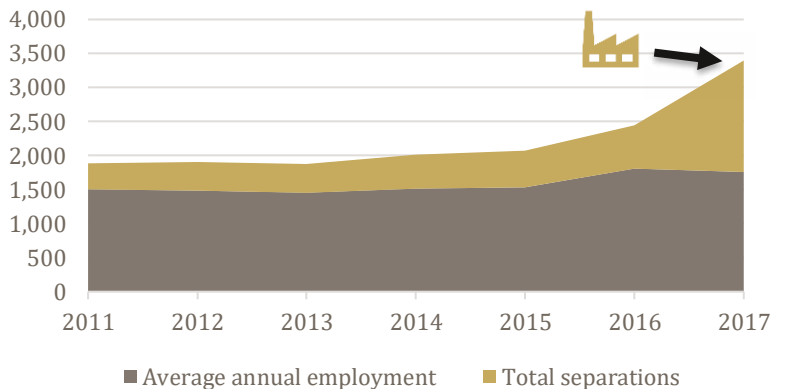


**Table 3. Sacramento County warehouse worker turnover, 2011-2017**

Year	Average annual employment	Total separations	Turnover rate
2011	1,504	381	25.3%
2012	1,485	420	28.3%
2013	1,452	425	29.3%
2014	1,510	501	33.2%
2015	1,529	548	35.9%
2016	1,809	637	35.2%
2017	1,762	1,635	92.8%

Source: MWPVL International, NELP analysis of Census Bureau's Quarterly Workforce Indicators data. Note: Los Angeles county is excluded because of Amazon represents a small proportion of the warehouse sector there.

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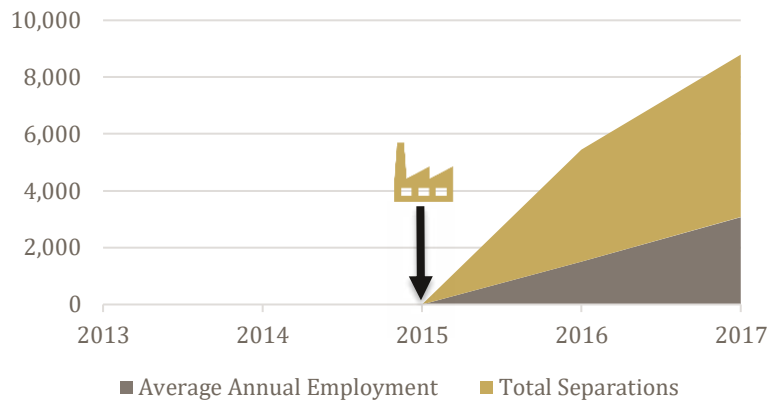


**Table 4. Guadalupe County, TX warehouse employee employment and separations, 2013-2017**

Year	Average Annual Employment	Total Separations	Turnover rate
2015	0	0	~
2016	1,499	3,942	263.0%
2017	3,070	5,723	186.4%

Source: MWPVL International, NELP analysis of Census Bureau's Quarterly Workforce Indicators data. Note: Los Angeles county is excluded because of Amazon represents a small proportion of the warehouse sector there.

**Figure 4. Guadalupe County, TX warehouse employee employment and separations, 2013-2017**

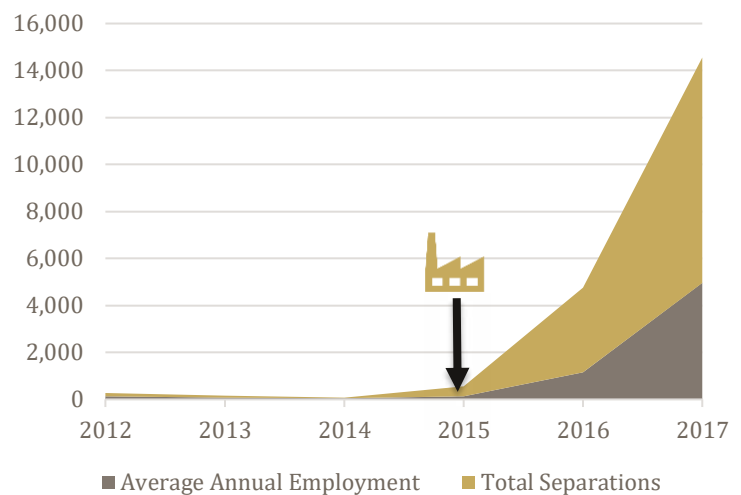


**Table 5. Scott County, MN warehouse employment and separations, 2012-2017**

Year	Average Annual Employment	Total Separations	Turnover
2012	140	125	89.3%
2013	82	83	101.8%
2014	52	10	19.2%
2015	117	431	368.4%
2016	1,164	3,599	309.3%
2017	4,964	9,589	193.2%

Source: MWPVL International, NELP analysis of Census Bureau's Quarterly Workforce Indicators data. Note: Los Angeles county is excluded because of Amazon represents a small proportion of the warehouse sector there.

**Figure 5. Scott County, MN warehouse employment and separations, 2012-2017**





## Endnotes

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- 1 See <https://www.theguardian.com/technology/2019/jan/01/amazon-fulfillment-center-warehouse-employees-union-new-york-minnesota>
- 2 See <https://s27147.pcdn.co/wp-content/uploads/NELP-Report-Amazon-Packaging-Pain.pdf>
- 3 NELP analyzed data from the Census Bureau's Quarterly Workforce Indicators for 5 counties: San Bernardino, San Joaquin, Sacramento, Riverside and Stanislaus counties. Los Angeles county was excluded because of Amazon's relatively minor presence there. Annual turnover is defined as total annual separations divided by average annual employment, following the method used by the Society of Human Resource Professionals available here: <https://www.shrm.org/resourcesandtools/tools-and-samples/how-to-guides/pages/determineturnoverrate.aspx>
- 4 National turnover rates are unavailable for warehousing and storage alone. The national rate reported here is for warehousing and transportation.
- 5 NELP analysis of QWI data.
- 6 See <https://www.theatlantic.com/business/archive/2018/02/amazon-offer-pay-quit/553202/>
- 7 Cottini E., Kato T., Westergaard-Nielsen N. (2011). Adverse workplace conditions, high-involvement, work practices and labor turnover: evidence from Danish linked employer-employee data. *Lab. Econ.* 18 872–880. 10.1016/j.labeco.2011.07.003 [list](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4792912/)  
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- 8 Jodi Kantor and David Streitfeld, "Inside Amazon: Wrestling Big Ideas in a Bruising Workplace," *The New York Times*, August 15, 2015, sec. Business, <https://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html>
- 9 Lecher, "How Amazon Automatically Tracks and Fires Warehouse Workers for 'Productivity.'"
- 10 See <https://www.cnn.com/2018/05/21/why-amazon-pays-employees-5000-to-quit.html>, and <https://www.theatlantic.com/business/archive/2018/02/amazon-offer-pay-quit/553202/>

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