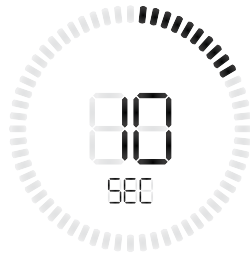
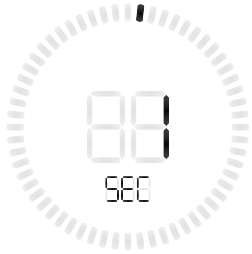


TIME OFF TASK



**PRESSURE, PAIN, AND
PRODUCTIVITY AT AMAZON**

REPORT AUTHORS AND RESEARCHERS

Marina Jabsky, M.P.H.
Industrial Hygienist, NYCOSH

Charlene Obernauer, M.A.
Executive Director, NYCOSH

EDITED BY

Lara Maldjian, M.P.H.
Associate Director, NYCOSH

REPORT DESIGNER

Hatty Lee

THE NEW YORK COMMITTEE FOR OCCUPATIONAL SAFETY AND HEALTH

NYCOSH is a membership organization of workers, unions, community-based organizations, workers' rights activists, and health and safety professionals. NYCOSH uses training, education, and advocacy to improve health and safety conditions in our workplaces, our communities, and our environment. Founded in 1979 on the principle that workplace injuries, illnesses and deaths are preventable, NYCOSH works to extend and defend every person's right to a safe and healthy workplace.

NYCOSH appreciates the assistance provided by many during this project, including contributors Juan Goris and Make the Road New York.



nycosh.org

EXECUTIVE SUMMARY

WORKING CONDITIONS AT AMAZON HAVE BEEN publically scrutinized in New York State and nationally. Reports by local and international journalists have inundated the media over the last several years, highlighting unsafe and unhealthy working conditions inside Amazon’s warehouses, distribution centers, and even their corporate headquarters. The varied, negative experiences of Amazon workers bring the need for immediate change to the forefront. Amazon employees and all workers have a legal right to safe and healthy workplaces, and employers have both a legal and a moral obligation to provide safe and healthy work practices and working conditions.

The New York Committee for Occupational Safety and Health (NYCOSH) was founded in 1979 on the belief that workplace injuries, illnesses, and deaths are preventable. NYCOSH investigated the Amazon Fulfillment Center on Staten Island, New York City to hear workers’ experiences and stories to determine if public reports of unsafe and unhealthy working conditions and practices in other jurisdictions are also commonplace in New York City. NYCOSH spoke with 145 Amazon workers and found that workers experience harmful working conditions and a workplace culture that prioritizes line speeds over human safety. Several workers expressed being evaluated on and docked points for the amount of “time off task”^{1,2} spent in a day. “Time off task” refers to any break that a worker takes, excluding their legally required 30-minute lunch break. If a worker has too much time off task, they may be disciplined and are ultimately subject to termination for poor performance.

This report finds that the majority of workers (80%) were pressured to work harder or faster at their facility; 66% expressed experiencing physical pain while performing work duties, and 42% continued to experience pain even when they weren’t at work. Ergonomic issues were among the most common for workers surveyed.

Our findings emphasize the need for key changes in the way Amazon conducts business. If Amazon cares about the safety of their workers, they must prioritize creating a workplace culture that puts health and safety at the forefront.

1. Interview with warehouse associate, July 3, 2019.

2. Interview with stower, July 4, 2019.

INTRODUCTION

IN RECENT YEARS, AMAZON HAS BEEN THE SUBJECT of a number of reports alleging safety and health risks for workers at their distribution and warehouse facilities. Such reports have showcased various complaints, including workplace cultures that encourage workers to work harder and faster;³ uncomfortable temperatures inside warehouses;⁴ and workers suffering from injuries, inadequate breaks, and heart attacks while on the job.⁵

On August 15, 2015, The New York Times published a scathing expose on the workplace culture at the company's corporate headquarters, "Inside Amazon: Wrestling Big Ideas in a Bruising Workplace."⁶ One employee from Amazon's human resources department called the culture at Amazon "purposeful Darwinism" and revealed that, throughout the company, top performers are referred to as "athletes." According to The New York Times, one employee stated, "If you're a good Amazonian, you become an Amabot."⁷

Workers' safety and health can be seriously affected by pressure to perform strenuous activities faster. Muscles, joints, and bones can be severely impacted by physical demand and postural stress from performing tasks in an Amazon distribution center. These tasks include repetitive back bending while lifting objects, or the twisting and pulling or pushing of objects.^{8,9} Some of the tasks frequently required of warehouse workers, in particular picking, selecting, storing and packing a worker to repeatedly use stressful and awkward postures while manually handling a physical load. Research has shown that workers who perform these handling tasks are more likely to suffer from musculoskeletal

3. Kantor, Jodi, and David Streitfeld. "Inside Amazon: Wrestling Big Ideas in a Bruising Workplace." *The New York Times*, August 15, 2015. <https://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html?login=smartlock&auth=login-smartlock#>.

4. Soper, Spencer. "Inside Amazon's Warehouse." *The Morning Call*, August 17, 2015. <https://www.mcall.com/news/watchdog/mc-allentown-amazon-complaints-20110917-story.html#page=1>.

5. Sanginiti, Terri. "Heart Attack Killed Amazon Worker, Daughter Says." *Delaware Online*, February 12, 2014. <https://www.delawareonline.com/story/news/local/2014/02/12/heart-attack-killed-amazon-worker-daughter-says/5441929/>.

6. Kantor, Jodi, and David Streitfeld. "Inside Amazon: Wrestling Big Ideas in a Bruising Workplace." *The New York Times*, August 15, 2015. <https://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html?login=smartlock&auth=login-smartlock#>.

7. Ibid.

8. Lei, Ling, Patrick G. Dempsey, Jian-guo Xu, Lin-na Ge, and You-xin Liang. "Risk Factors for the Prevalence of Musculoskeletal Disorders among Chinese Foundry Workers." *International Journal of Industrial Ergonomics* 35, no. 3 (March 2005): 197-204. doi:<https://doi.org/10.1016/j.ergon.2004.08.007>.

9. Trinkoff, Alison M., ScD, RN, FAAN, Jane A. Lipscomb, PhD, RN, FAAN, Jeanne Geiger-Brown, PhD, RN, Carla L. Storr, ScD, and Barbara A. Brady, MS, RN. "Perceived Physical Demands and Reported Musculoskeletal Problems in Registered Nurses." *American Journal of Preventive Medicine* 24, no. 3 (April 2003): 270-75. doi:[https://doi.org/10.1016/S0749-3797\(02\)00639-6](https://doi.org/10.1016/S0749-3797(02)00639-6).

disorders (MSDs) than workers who have less exposure to handling tasks.^{10,11} These stressors are only exacerbated by organizational efforts—such as those implemented at Amazon—to optimize warehouse efficiency, which prioritize productivity over safety.^{12, 13}

In 2015, *The Morning Call*, a Pennsylvania-based newspaper, wrote about heat stress among workers. They interviewed 20 workers at one distribution center in Lehigh Valley after a worker leader reported brutal heat inside the warehouse. The exposé provided insight on the working conditions in Amazon’s factories:

Workers said they were forced to endure brutal heat inside the sprawling warehouse and were pushed to work at a pace many could not sustain. Employees were frequently reprimanded regarding their productivity and threatened with termination, workers said. The consequences of not meeting work expectations were regularly on display, as employees lost their jobs and got escorted out of the warehouse. Such sights encouraged some workers to conceal pain and push through injury lest they get fired as well, workers said.¹⁴

Other reports indicate that workers have suffered from heart attacks in Amazon distribution centers, and that the company failed to adequately protect their workers. In 2014, an Amazon employee, Sonja Morris, 46, was found dead from a heart attack in the company parking lot immediately following her 10-hour shift in Middleton, Delaware.¹⁵ In 2017, Thomas Becker, a 57-year-old Amazon worker died from a heart attack while on the job; the company waited 25 minutes before calling the Joliet, Illinois Fire Department, according to a lawsuit filed by Mr. Becker’s wife.¹⁶

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10. St-Vincent, M., D. Dennis, D. Imbeau, and M. Laberge. “Work Factors Affecting Manual Materials Handling in a Warehouse Superstore.” *International Journal of Industrial Ergonomics* 35, no. 1 (January 2005): 33-46. doi:<https://doi.org/10.1016/j.ergon.2004.07.005>.
 11. Jang, Ren-Liu, and An-Che Chen. “Hazards and Risks Associated with Warehouse Workers: A Field Study.” *Proceedings of the Institute of Industrial Engineers Asian Conference 2013*, 2013, 681-86. doi:10.1007/978-981-4451-98-7_82.
 12. Soper, Spencer. “Inside Amazon’s Warehouse.” *The Morning Call*, August 17, 2015. <https://www.mcall.com/news/watchdog/mc-allentown-amazon-complaints-20110917-story.html#page=1>.
 13. Del Valle, Gaby. “New York Already Has Thousands of Amazon Workers — and Some Are Unionizing to Demand Better Conditions.” *Vox*, December 12, 2018. <https://www.vox.com/the-goods/2018/12/12/18138246/amazon-hq2-new-york-city-hearing>.
 14. Soper, Spencer. “Inside Amazon’s Warehouse.” *The Morning Call*, August 17, 2015. <https://www.mcall.com/news/watchdog/mc-allentown-amazon-complaints-20110917-story.html#page=1>.
 15. Sanginiti, Terri. “Heart Attack Killed Amazon Worker, Daughter Says.” *Delaware Online*, February 12, 2014. <https://www.delawareonline.com/story/news/local/2014/02/12/heart-attack-killed-amazon-worker-daughter-says/5441929/>.
 16. Fabre, Alicia. “Amazon Delayed Medical Help for Joliet Warehouse Worker Who Had Heart Attack, Says Lawsuit Filed By Widow.” *Chicago Tribune*, January 25, 2019. <https://www.chicagotribune.com/suburbs/ct-met-amazon-worker-death-lawsuit-20190125-story.html>.

NYCOSH SURVEY AND FINDINGS

THE PREVALENCE OF NEGATIVE REPORTS across the country prompted a need to investigate working conditions at New York City’s Amazon Fulfillment Center in Staten Island. As a result, NYCOSH found overwhelming evidence that Amazon needs to better prioritize workplace health and safety and the wellbeing of its workers.

To develop a snapshot of the occupational health and safety issues experienced by workers at the Amazon Fulfillment Center on Staten Island in New York City, NYCOSH conducted surveys with employees. Between January 3rd and May 7th, 2019, 142 of the 2,500 workers¹⁷ at the 855,000 square foot¹⁸ center were surveyed. NYCOSH canvassers asked workers questions related to four key occupational health and safety issues: psychological stress, economic stress, occupational pain, and occupational injuries. Following completion of the surveys, NYCOSH conducted in-depth interviews with an additional three workers, asking them to comment on the questions that the 142 workers were asked in their surveys. In total, NYCOSH spoke with 145 Amazon workers.

PSYCHOLOGICAL STRESS

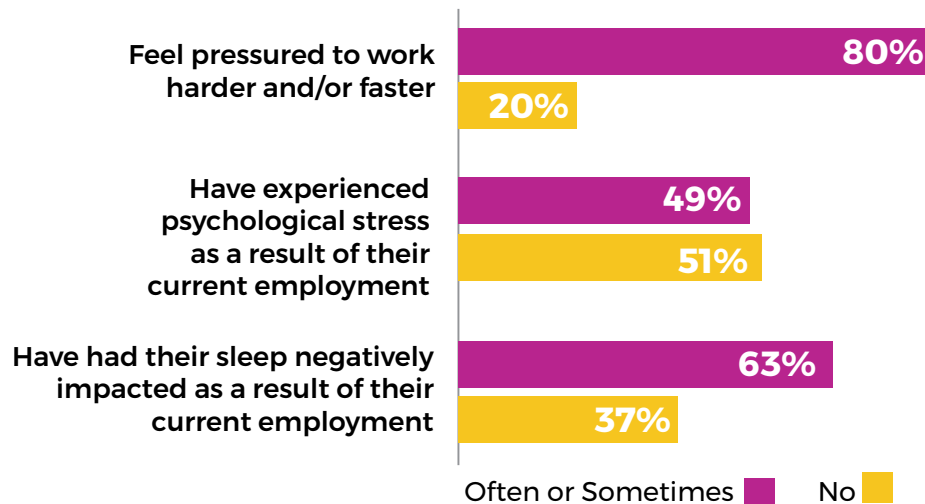
Surveyed workers were asked if they:

- Were pressured to work harder and/or faster
- Were able to use bathroom when they needed to
- Were able to take at least 30 minutes to eat lunch
- Experienced psychological stress as a result of their employment
- Had their personal or family life negatively affected as a result of their employment
- Had their sleep negatively impacted by their employment

17. Del Valle, Gaby. “New York Already Has Thousands of Amazon Workers—and Some Are Unionizing to Demand Better Conditions.” Vox, December 12, 2018. <https://www.vox.com/the-goods/2018/12/12/18138246/amazon-hq2-new-york-city-hearing>.

18. Shapiro, Rachel. “Amazon to Open Fulfillment Center on Staten Island.” September 6, 2017. https://www.silive.com/news/2017/09/amazon_center_coming_to_bloomf.html.

FIGURE 1
WORK-RELATED STRESS AT AMAZON FULFILLMENT CENTER
STATEN ISLAND



The majority (80%) of Amazon workers surveyed expressed that they felt pressured to work harder and faster. Amazon jobs are notoriously¹⁹ dictated by the company’s controversial “Leadership Principles,” which encourages workers to “work vigorously” and note that “speed matters.”²⁰ Workers are evaluated based on the speed in which they work, and when workers take breaks, this time is considered “time off task.”^{21 22}

While workers surveyed indicated that they were able to use the bathroom when they needed to (97%), the overall model of “time off task” complicates things; workers have a disincentive to step away from their work stations for any reason, including using the restroom. The result of a culture that prioritizes productivity over human needs is that workers do not take care of necessary bodily functions, such as taking breaks when conducting strenuous physical labor, hydrating adequately, or using the restroom. This production-obsessed culture designs the workplace to meet the economic goals of the company instead of the needs of the worker. In addition to the physical repercussions of this workplace culture, there are psychological impacts as well. Workers in all three in-depth interviews conducted referenced the stress of working in these conditions. In one interview with NYCOSH, Ian (name changed for anonymity), a stower who works at the Staten Island facility, explained the system:

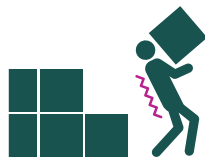
19. Kantor, Jodi, and David Streitfeld. “Inside Amazon: Wrestling Big Ideas in a Bruising Workplace.” *The New York Times*, August 15, 2015. <https://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html?login=smartlock&auth=login-smartlock#>.
 20. “Amazon’s Global Career Site.” Amazon.jobs. Accessed July 15, 2019. <https://www.amazon.jobs/en/principles>.
 21. Interview with warehouse associate, July 3, 2019.
 22. Interview with stower, July 4, 2019.

They basically have a quota system that has you handle at least 2,000 units throughout the day. Four items per minute... Just the quota system pushes you to really not work at a pace that's normal, but at a pace where you're almost running for the entire ten hours. You're in a small box. There's no walls. It's not boxed in. But it's like, there's tape on the ground and an ergo mat you stand on. [...] It must be 50 square feet or something like that. You're constantly turning, bending, running. They say they make a big deal about safety, but when you're working so fast, you're not going to follow those mandates.²³

Charlmon, a Warehouse Associate employed at the Staten Island facility, commented on being pressured to work harder at faster: "From day one that I started working there," he said, "it was like you have to give your all and then some more. You're not being compensated for it."²⁴

NYCOSH's surveys and interviews suggest that the speed-obsessed culture Amazon has been so heavily criticized for in other jurisdictions is business as usual at its Staten Island distribution center.

In an effort to increase warehouse efficiency, businesses like Amazon have invested in software that has been used to optimize storage assignments for products; these planning models also map out travel routes for order pickers in the warehouse, to minimize time spent assembling the order.²⁵ Analyses of such models show that, too often, they prioritize management-oriented efficiency criteria at the expense of human factors, such as worker health and safety concerns.^{26,27}



23. Interview with stower, July 4, 2019.

24. Interview with warehouse associate, July 3, 2019.

25. Grosse, Eric H., Christoph H. Glock, and W. Patrick Neumann. "Human Factors in Order Picking System Design: A Content Analysis." *International Federation of Automatic Control*. 48, no. 3 (August 31, 2015): 320-25. doi:<https://doi.org/10.1016/j.ifacol.2015.06.101>.

26. Soper, Spencer. "Inside Amazon's Warehouse." *The Morning Call*, August 17, 2015. <https://www.mcall.com/news/watchdog/mc-allentown-amazon-complaints-20110917-story.html#page=1>.

27. Battini, Daria, Martina Calzavara, Alessandro Persona, and Fabio Sgarbossa. "Additional Effort Estimation Due to Ergonomic Conditions in Order Picking Systems." *International Journal of Production Research* 55, no. 10 (June 01, 2016): 2764-774. Taylor & Francis Online.

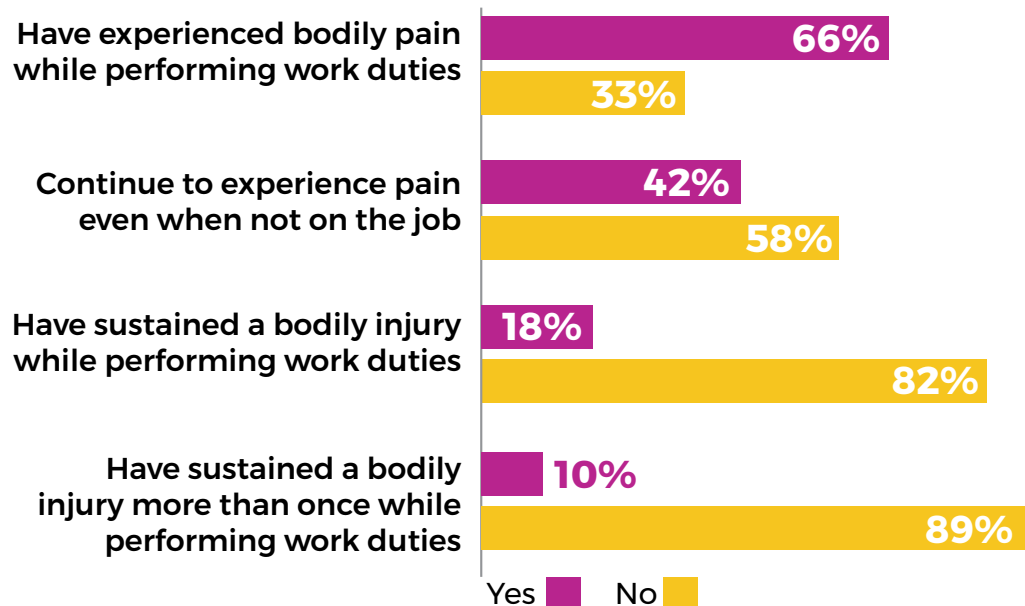
OCCUPATIONAL PAIN

Workers were asked whether they had...

- Experienced bodily pain while performing work duties
- Sustained a bodily injury while performing work duties
- Experienced pain as a result of work duties even when not on the job
- Have been injured while performing work duties more than once
- Have been cut, lacerated, or wounded while performing work duties
- Have strained, pulled, or dislocated a muscle of a joint while performing work duties
- Have been caught in, hit, or injured by machinery at work while performing work duties
- Have slipped, tripped, or fallen at work while performing work duties

NYCOSH found that bodily pain is a regular way of life for workers employed at Amazon's Staten Island distribution center. Of the workers surveyed, the majority (66%) had experienced physical pain while performing their regular work duties, and 42% of workers continued experiencing pain even when they were not at work (see Figure 2).

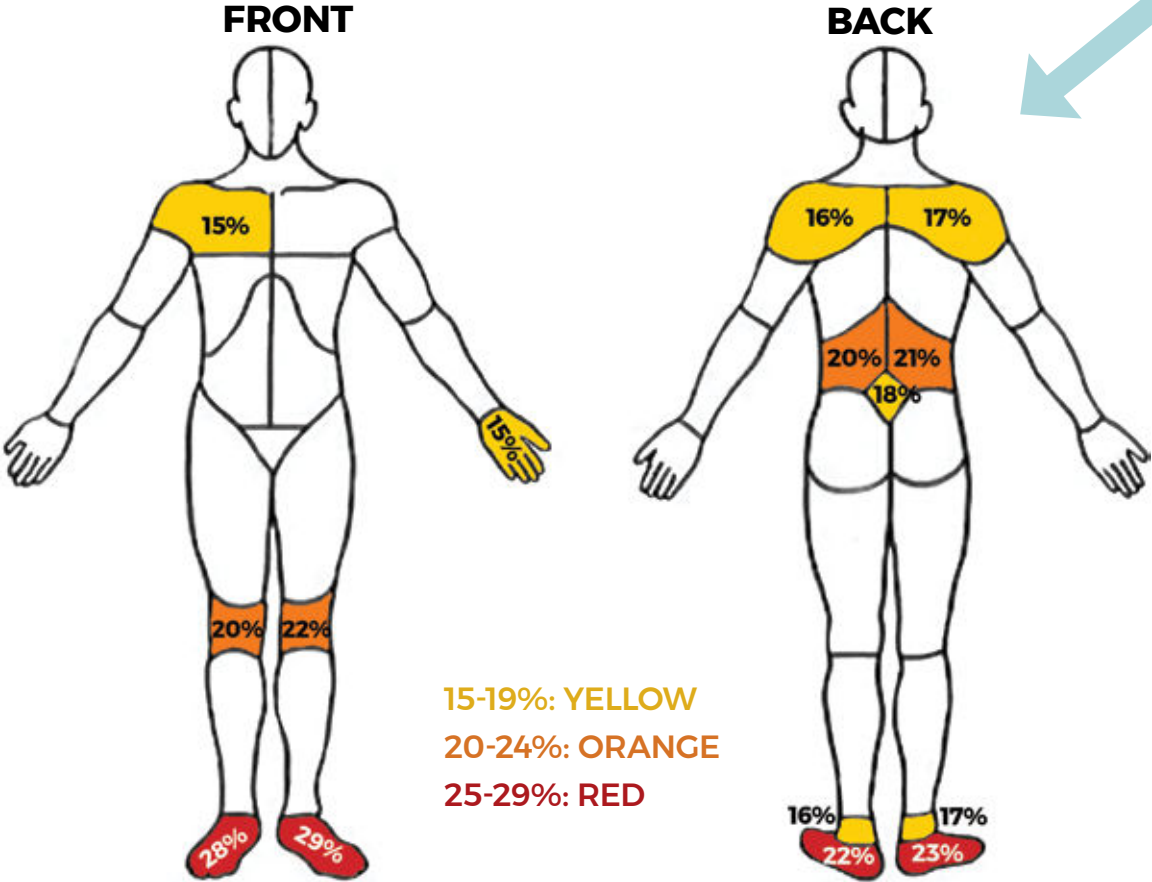
FIGURE 2
OCCUPATIONAL PAIN



In addition to being asked the questions in Figure 2, workers were given a blank numbered body map (Figure 3) and were asked to circle the number corresponding with the area of the body where they experienced pain. Body mapping is a way for researchers or workers to get information about health and safety problems at work and shows what parts of a worker's body are getting hurt, sick or stressed by their job. Many times workers do not know why they get hurt or sick on the job and might not know the exact injury incurred, but by asking workers to draw body maps, NYCOSH was able to determine where workers experience pain.

The body map, when distributed to workers, overwhelmingly showed that the vast majority of workers were regularly in pain in various parts of their body.

FIGURE 3



The most common areas of pain were as follows:

1. The left foot; 29% of employees surveyed have experienced pain
2. The right foot; 28% of employees surveyed have experienced pain
3. The right heel; 23% of employees surveyed have experienced pain
4. The left heel; 22% of employees surveyed have experienced pain
5. The left knee; 22% of employees surveyed have experienced pain
6. The lower back, right side; 21% of employees surveyed have experienced pain
7. The lower back, left side; 20% of employees surveyed have experienced pain
8. The right knee; 20% of employees surveyed have experienced pain
9. The lower back, center/tail bone; 18% of employees surveyed have experienced pain
10. The upper back, right shoulder; 17% of employees surveyed have experienced pain
11. The right ankle; 17% of employees surveyed have experienced pain
12. The upper back, left shoulder; 16% of employees surveyed have experienced pain
13. The left ankle; 16% of employees surveyed have experienced pain
14. The left hand, palm; 15% of employees surveyed have experienced pain
15. The pectoral/chest, right shoulder; 15% of employees surveyed have experienced pain

The injuries uncovered, including those to the feet, knees, back, ankles, and hands, are likely work-related musculoskeletal disorders. These findings, combined with survey results indicating that 80% of workers are pressured to work harder and faster, shows that the fast pace required of workers may lead to work-related MSDs.

According to the Bureau of Labor Statistics, warehouses reported a rate of serious work related injuries involving lost time or restricted duty that is 2.6 times the national average for all private industries. Further, musculoskeletal injuries that require time off work affect workers in the wholesale and retail trades at rates much higher than other industries. Laborers and freight, stock and material movers experience the highest number of overexertion injuries. Workers in warehouses are required to perform manual material handling tasks involving serious risk factors including but not limited to: forceful exertions, repetitive motions, twisting, bending, and awkward postures and combinations thereof that can cause or are likely to cause musculoskeletal injuries. Scientific evidence shows that effective ergonomic interventions can lower the physical demands of manual material handling work, lowering the incidents and severity of musculoskeletal injuries. According to the National Institute for Occupational Safety and Health, the most effective method for addressing these risk factors at work is to implement a process that includes analysis of the worksite, medical management, training, and education of employees (in both early recognition of symptoms of injury, hazard prevention and control).

According to the BLS, In 2017 the general warehouse industry reported that 5.2% of workers suffered a work related injury or illness. This rate is already twice the rate reported by all private industry. In contrast to the 5.2% reported by the national average for warehouses, 18% of workers surveyed at Amazon's Staten Island distribution center indicated they were injured as a result of their work. The Amazon SI facility injury and illness rate is almost seven times as high as the national average for all industries, and a stunning 3 times as high as the average for all other warehouses nationwide.

Such injuries can have extreme impacts on individual workers. In the United States, MSDs are ranked number one among chronic impairments, and are the leading cause of physical disability.²⁸ A 2012 National Health Interview Survey of 126.6 million adults in the US (representing more than 50% of the over-18 population at the time of the survey) found that more than 34.5 million adults age 18 or older (13%) have difficulty performing routine activities of daily living (ADL) without assistance; one half of both adults and children reported a musculoskeletal condition that limited their activities; of these back and neck problems were the most common MSD to cause ADL limitations.²⁹ Survey responders also self-reported the number of lost work days and bed days (defined as one-half or more days in bed due to injury or illness) in the 12 months prior to the survey; 70% of the individuals reporting bed and lost work days had a musculoskeletal condition.³⁰

Given these limitations, which only worsen with age, workers who develop MSDs are ultimately forced out of the workforce, and into disability. This has a ripple effect, impacting not only the workers' individual lives, but also those of their families, as well as financial ramifications for the community at large.

Workers consistently indicated that pain was a part of their daily job. Charlmon stated:

I feel pain in my back, in my waist, because I do a lot of bending. Even if you squat, you still feel the pain in your waist. It's a full body workout all day every day. Sometimes my waist hurts, my legs.³¹

An anonymous worker interviewed on July 10, 2019 stated, "I say that this job will beat you up, that's what I call it."³²

28. Woolf, Anthony D and Kristina Akesson. "Understanding the burden of musculoskeletal conditions." *British Journal of Medicine*. 322, no. 7294. (2001). 1079-1080. doi: [10.1136/bmj.322.7294.1079](https://doi.org/10.1136/bmj.322.7294.1079)

29. United States Bone and Joint Initiative: The Burden of Musculoskeletal Diseases in the United States (BMUS), Third Edition, 2014. Rosemont, IL. Available at <http://www.boneandjointburden.org>.

30. *Ibid.*

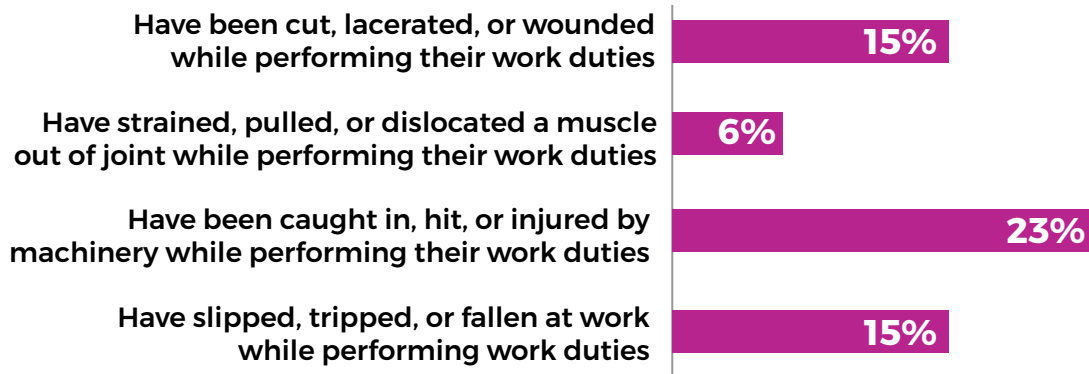
31. Interview with warehouse associate, July 3, 2019.

32. Interview with Amazon worker, July 10, 2019.

OCCUPATIONAL INJURY

Nearly 1 in 2 Amazon workers (42%) had sustained a physical injury on the job, and 10% had been injured more than once (Figure 2). The types of injuries sustained by workers at the Amazon fulfillment center in Staten Island are described in Figure 4.

FIGURE 4
TYPES OF INJURIES SUSTAINED

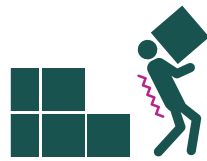


Occupational injuries can often occur as a result of working at unrealistic line speeds, with expectations that prioritize output over the safety and health of a workforce. Amazon has been known for prioritizing the speed of its delivery, which has lasting consequences on workers. As one U.K.-based distribution center worker wrote in “The Amazon Diaries,” a recurring piece in *The Guardian*:

It doesn't take long before you've seen blown backs, boxes falling on people's heads, carpal tunnel in your coworkers' wrists, and balky knees that never get better. You've seen workers compensation claims repeatedly denied and efforts to address safety issues given low priority. You've seen sexism, racism, and ageism in a promotion culture tainted with favoritism. You've seen write-ups unfairly distributed and used to manipulate workers. You've seen an emotionally toxic culture, where the stress of meeting productivity targets leads managers to treat workers like things, to be pushed harder and faster without regard for the emotional or personal cost. You've arrived home exhausted, too worn out to spend time with your kids or friends. And you've noticed that the wealth we produce is being accumulated by our boss—the modern world's richest man—while our wages barely keep us afloat.³³

33. Guardian Staff, comp. “About Amazon Diaries—a Guardian Series.” *The Guardian*, November 21, 2018. <https://www.theguardian.com/us-news/2018/nov/21/about-amazon-diaries-a-guardian-series>.

The injuries reported in the NYCOSH survey, as well as the areas of pain indicated on the body map, are consistent with the current research of MSDs associated with work tasks, such as order picking and stocking, bending, reaching overhead, lifting, pushing, and pulling loads. ^{34,35} These tasks are, in turn, consistent with the work conducted at the Amazon distribution facility.



34. Grosse, Eric H., Christoph H. Glock, and W. Patrick Neumann. "Human Factors in Order Picking System Design: A Content Analysis." *International Federation of Automatic Control*. 48, no. 3 (August 31, 2015): 320-25. doi:<https://doi.org/10.1016/j.ifacol.2015.06.101>.
35. Battini, Daria, Martina Calzavara, Alessandro Persona, and Fabio Sgarbossa. "Additional Effort Estimation Due to Ergonomic Conditions in Order Picking Systems." *International Journal of Production Research* 55, no. 10 (June 01, 2016): 2764-774. Taylor & Francis Online.

KEY RECOMMENDATIONS

BASED ON THE RESULTS OF OUR SURVEY, NYCOSH RECOMMENDS AMAZON TAKES THE FOLLOWING ACTIONS TO PROTECT ITS WORKERS IMMEDIATELY:

1. REMAIN NEUTRAL IN WORKERS PUSH TO UNIONIZE.

Amazon should not oppose unionization for their workers, but rather should remain neutral to allow the workers to make this decision for themselves. Amazon is well known for its opposition to its employees' efforts to unionize,³⁶ but that may well be one of the key contributors to the improvement of health and safety among Amazon's employees. Instead of terminating employees involved in the unionizing efforts, as employee Rashad Long, a worker employed in the Staten Island distribution center, alleged in a National Labor Relations Board complaint against the company,³⁷ the company should remain neutral in workers' efforts to form a union.

The role of unions in improving occupational health and safety has been colloquially referred to as the union safety effect and is well documented. In ten studies conducted throughout the United States, Canada, and Great Britain, lower injury and illness rates and shorter disability duration were identified as benefits associated with a unionized workforce.³⁸ One study found that unionized workers were more likely to be made aware of dangerous work practices, receive safety instructions when hired, have regular job safety meetings, perceive that taking risks was not part of their job, and perceive that their supervisors cared about their safety than their non-union counterparts.³⁹

To fire workers or to intimidate them because they seek to unionize is not only bad business, but it is illegal. The company must stop its illegal retaliation and allow workers to make their own decision regarding unionization. Amazon should agree to a neutrality agreement.

36. Campbell, Alexia Fernandez. "Amazon Fired a Warehouse Worker Who Was Trying to Unionize. Now He's Taking Legal Action." *VOX*, March 22, 2019. <https://www.vox.com/2019/3/22/18277322/amazon-fired-warehouse-worker-staten-island-union>.

37. *Ibid.*

38. Amick, Benjamin C., Sheilah Hogg-Johnson, Desiree Latour-Villamil, and Ron Saunders. "Protecting Construction Worker Health and Safety in Ontario, Canada." *Journal of Occupational and Environmental Medicine* 57, no. 12 (2015): 1337-342. doi:10.1097/jom.0000000000000562.

39. Gillen, Marion, Davis Baltz, Margy Gassel, Luz Kirsch, and Diane Vaccaro. "Perceived Safety Climate, Job Demands, and Coworker Support among Union and Nonunion Injured Construction Workers." *Journal of Safety Research* 33, no. 1 (2002): 33-51. doi:10.1016/s0022-4375(02)00002-6.

2. BUILD A COMPREHENSIVE ERGONOMICS PROGRAM.

Amazon should build an ergonomics program to prevent workplace pain and injury. Work-related musculoskeletal disorders (WMSDs) can be effectively addressed through comprehensive ergonomics programs. NYCOSH understands that Amazon does provide short periods of guided stretching (approximately 15 minutes in duration) before the beginning of a shift, and after the lunch break. NYCOSH was also informed, during the worker surveys, that Amazon provides training to its workers during onboarding, wherein new hires are shown how to lift materials correctly. However, given the nature of the injuries sustained and the pain experienced by Amazon employees, it is clear that the preventative measures that Amazon has currently in place are not sufficient to prevent WMSDs among the company's employees.

It is unclear from this survey whether Amazon has performed a risk assessment of the tasks it requires its employees to perform, or whether it encourages injury reporting amongst its workers. However, both steps are crucial for a fully functional and effective ergonomics program, as continuous review of both the tasks and the injuries can indicate to management whether the company's preventative efforts are effective in preventing WMSDs.

The National Institute for Occupational Safety and Health (NIOSH) provides an interactive, six-step guide⁴⁰ to creating a general ergonomics program, and to hire an ergonomist who would be able to help Amazon design a program that is specific to the Staten Island facility. However, no program will be effective without Amazon's unequivocal commitment to create a safe workplace for its employees, and the appropriate dedication of resources to the task. If providing a healthful workplace isn't enough motivation to implement protective measures, then Amazon can do so to diminish the productivity and revenue loss associated with work time lost to injury, the cost of training replacement employees, and medical compensation payments.

3. REDUCE LINE SPEEDS.

To prevent injury and WMSDs for workers, line speeds at Amazon should be slowed. One of the most frequently received complaints during the NYCOSH survey process was that workers consistently felt pressured to work faster at the Amazon facility. Pace of work is a key risk factor for injuries and WMSDs, as it dictates the amount of time that the body has available to rest and recover between task cycles; the faster the pace is, the less recovery time is available, and the higher the risk for developing a WMSD.

Externally paced work activities—that is, activities for which the worker does not have direct control of the rate of work—are a WMSD hazard.²⁰ Examples of externally paced work include (1) a worker needing to keep up with an assembly line or a

40. United States. Centers for Disease Control and Prevention. The National Institute for Occupational Safety and Health. *Elements of Ergonomic Programs*.

machine; (2) a worker needing to respond to a continuous queue (e.g., customers in line, online orders); or time standards imposed on workers. When workers have no control over the speed of their work tasks, their stress levels increase, making muscle tension, fatigue, and WMSD more likely.⁴¹ Amazon employees are subject to all three of these scenarios.

CONCLUSION

Amazon has a troubled record of worker safety and health violations in the United States, which was confirmed by NYCOSH's investigation of working conditions in the Staten Island distribution center. Cultures of safety, which typically occur in unionized workplaces, are only possible if a company prioritizes the worth of their workers over their profit margins. Safety has shown to be disregarded in favor of a culture that emphasizes fast line speeds and task completion. NYCOSH's recommendations: a unionized workplace, comprehensive ergonomics program, and decreased line speeds, coincide with the findings in this report, and if implemented, would make Amazon a safer place to work, not only in New York, but all over the world.

41. Canada. Canadian Centre for Occupational Health and Safety. *Work-related Musculoskeletal Disorders (WMSDs) - Risk Factors*.

APPENDIX 1: ELEMENTS OF AN ERGONOMICS PROGRAM

STEP 1: IDENTIFY RISK FACTORS

Before building a program, it's imperative to first understand the areas where workers may sustain injuries. There are several ways this risk assessment can be approached:

- **Review injury records**

- Both OSHA logs and company medical records are available to most employers. From these, employers can calculate incidence and prevalence rates of work-related musculoskeletal disorders (WMSDs).

- **Evaluate workplace conditions for potential stressors, both physical and psychosocial.**

- Physical stressors arise from the force, repetition, and postures inherent to the specific job tasks being performed. The exertion can cause muscle fatigue, disrupt blood flow, and ultimately lead to WMSDs.
- Psychosocial stress can arise from organizational work factors, such as fatiguing or excessive workload, repetitiveness, lack of job control, either extremely high or extremely low mental demand, and low job satisfaction. Factors outside of the workplace, such as parenting responsibilities, or individual worker factors (genetic factors, educational status, etc.), can also contribute.

The US Bureau of Labor Statistics is a potential starting point, as it provides data on occupations that have physical requirements.

- **Use checklists to formally screen job tasks for risk factors.**

- Conduct a walk through of the facilities, and observe several workers performing the job tasks.
- Interview workers and supervisors to gather data about the process.

STEP 2: INVOLVE AND TRAIN MANAGEMENT AND WORKERS

Workers know their job tasks better than anyone else, and are in the best position to offer observations and recommendations for feasible and infeasible adjustments to the work process. Both workers and management need to be trained to understand ergonomics so they can identify and address stressors that contribute to WMSDs, as well as the signs and symptoms.

Trainings could be customized to the target audience, depending on their job responsibilities. For example:

- **Ergonomics Awareness Training**

- Should be provided to most employees; focus on recognizing WMSD risk factors and symptoms, and understanding how workers can address and report WMSD concerns.

- **Training in Job Analysis and Control Measures**

- Should be provided for ergonomics team members; focus on learning to conduct job analyses and how to implement and evaluate control measures.

- **Training in Problem Solving**

- Should be given to those working in hazard control problem solving groups; focus on developing skills in team building, consensus development, and problem-solving.

STEP 3: COLLECT HEALTH AND MEDICAL EVIDENCE

Collect health and medical evidence of WMSDs in the staff, and follow up on workers whose jobs cause physical fatigue, stress, or discomfort. Pay specific attention to instances where workers in a specific department or area report more WMSD problems than workers in other departments or areas, and prioritize possible WMSD factors in that department.

Both, the US Bureau of Labor Statistics and NIOSH provide a number of tools to help compute the incidence and prevalence rates, assessment tools that can be used for body mapping and screening, and guidelines on conducting job analyses.

STEP 4: IMPLEMENT ERGONOMIC PROGRAM

Use the Hierarchy of Controls to determine the hazard control intervention method (elimination, substitution, engineering, administrative, or use of personal protective equipment) that will be implemented at the facility. It's not a bad idea to conduct limited testing prior to full-scale implementation (for example, trying out the intervention in a limited manner, whether only on certain shifts, or certain departments, and making modifications to the intervention as needed, prior to a full-facility launch).

STEP 5: EVALUATE ERGONOMIC PROGRAM

Conduct follow-up on the interventions to verify that the controls actually reduce or eliminate the WMSD risk factors, and that no new WMSD risk factors were created. Note that workers may be initially sore from doing their jobs differently, particularly if they're now required to use different muscle groups, so it may be necessary to check in with workers within a short period after implementation (such as a week) as well as a longer time period (such as one month). Workers will not experience the benefits of an ergonomics program immediately, as it may take several months for existing WMSD symptoms to disappear, just as it may take several months for new WMSDs to develop.

Compare post-implementation data with the data collected in Steps 1 and 3, prior to control implementation.

STEP 6: PROMOTE WORKER RECOVERY THROUGH HEALTH CARE MANAGEMENT AND RETURN-TO-WORK

Studies have shown that the chances of an employee returning to work decrease the longer the worker remains at work, and minor diagnoses can lead to disability if recovery and return-to-work processes are not adequately managed. These processes need to be a coordinated effort between employees, employers, and health-care providers.

Employers are responsible for:

- Developing a return-to-work program, which includes modified and restricted duties, or temporary job transfers, to accommodate employees with WMSDs.
- Educating and training employees to recognize and report WMSDs
- Encouraging employees with WMSD symptoms to consult with qualified health-care providers
- Give healthcare providers the opportunity to become familiar with the job tasks in the workplace, so they can better treat the workers

Healthcare providers are responsible for:

- Meeting with employers to learn the demands of the jobs and job tasks
- Become familiar with the physical capabilities and demands of the employees
- Review job analysis reports, job descriptions, and job safety analyses
- Evaluate employees' work activities and determine whether they can cause, contribute to, or exacerbate WMSD pain.
- Determine any work restrictions or modifications needed by the employees
- Document any changes or improvements to employees' WMSD symptoms

Employees are responsible for:

- Engaging in safe work practices
- Following the workplace health and safety rules
- Report signs and symptoms of WMSD

The Division of Federal Employees' Compensation (DFEC) POWER Initiative has developed a Return-to-Work Tool Kit and a guidance on returning injured employees to work. The Institute for Work and Health (IWH) and the International Association for Industrial Accident Boards and Commissions (IAIABC) have also developed return-to-work guidelines, all of which outline responsibilities and resources for the employee, the employer, and the healthcare provider.

STEP 7: MAINTAIN MANAGEMENT COMMITMENT AND EMPLOYEE INVOLVEMENT

Data demonstrates that management commitment to the ergonomics programs is crucial to the success of interventions. Management is also responsible for encouraging workers to provide input on intervention ideas (Step 2), and for encouraging cooperation between workers, supervisors, and support staff.

Adapted from NIOSH, Elements of Ergonomic Programs:
<https://www.cdc.gov/niosh/topics/ergonomics/ergoprimer/default.html>