

Longshoremen Strike Exposes Previously Overlooked Environmental Implications of the US's Food Supply Chain

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EAST AND GULF COASTS

In early October, 75% of the US's newly imported, bright green bananas sat abandoned inside cargo ships, in danger of transforming into soft, brown, rotting fruits (Gibson, 2024). Workers clothed in reflective yellow vests and an air of solemnity marched outside of 36 ports on the East and Gulf coasts, united for their cause. They thrust their hands in the air, hoisting up corrugated plastic signs displaying the bolded blue slogan "ILA DEMANDS FAIRNESS."

Members of the International Longshoremen's Association (ILA) union recently ended a strike that effectively halted the transportation of imported food and produce from 36 ports on the East and Gulf Coasts of the United States. The strike lasted from October 1st to October 3rd, when the Union agreed to suspend the strike until January 15th, 2025 (Eavis, 2024a). A prolonged strike could have disrupted millions of Americans' accessibility to food.

History of the ILA

In 1870, longshoremen founded their first modern union in New York ("Overview of ILA History," 2025). Today, the ILA's Constitution aims to "improve the wages and hours of work and to increase the job security and better the work and living conditions of all the workers employed." Acting in line with the ILA's values, 45,000

longshoremen went on strike against their employer, the United States Maritime Alliance (USMX), demanding higher wages and increased job security from robots and artificial intelligence.

ILA longshoremen operate heavy machinery, such as cranes and forklifts, to unload large containers from cargo ships from the Caribbean, Central America, South America, or Europe docking in the U.S.'s East and Gulf Coast ports. These container ships import items such as electronics, petroleum, and food. Longshoremen then load the cargo onto trucks, planes, and trains for domestic distribution to grocery stores and large corporations.

Longshoremen's schedules are highly irregular, and depend on when cargo ships enter and exit the port. In addition to unpredictable hours, they must be ready to load and unload cargo despite adverse weather conditions—rain, sleet, or snow can make transporting the heavy cargo dangerous.

Researchers at OSHA reveal that vehicular accidents, falls and drowning accidents, and material handling accidents are the most common causes of fatality for longshoremen (*Longshoring and Marine Terminals: Fatal Facts*, n.d.). Data collected from researchers at Payscale shows that ILA longshoremen members currently earn anywhere from \$20-39 per hour depending on experience, resulting in salaries ranging from \$41,600 to \$81,120 per year (*Average Longshoreman Hourly Pay*, 2024). For



Figure 1: Longshoremen on strike at Bayport Terminal in Houston. Photo Courtesy of Annie Mulligan at AP Photo, via WSBT 22. (Bookspan, 2024)

comparison, the average hourly wage of an Amazon warehouse employee, a job that operates fewer dangerous vehicles, doesn't have a risk of drowning, and doesn't require management of dangerous materials, is over \$22 per hour, and [Amazon](#) says this hourly wage increases yearly (Amazon Staff, 2024).

On October 3rd, the ILA ended their strike after a tentative agreement with the USMX for longshoremen to receive a 61.5% raise over the next six years (Eavis, 2024b). This agreement will increase longshoremen's pay to \$63 per hour, coming to a salary of \$131,040. This relatively quick negotiation to end the strike helped avert an economic crisis and major disruptions in the food supply chain. Although this strike didn't have a long-lasting impact on food supply, it exposed the environmental implications of America's food supply chain.

Food Waste

At Port Wilmington, Delaware, large red cargo

ships with chunky, black, wind-faded lettering on the superstructure navigate into the port with the captain aligning the starboard side parallel to the heightened concrete dock. Bananas and berries sit inside pallets constructed with splintered oak wood, secured to the deck with thick woven canvas straps. Longshoremen swarm around the incoming vessel, knotting sailor's rope around heavily bolted boat cleats while enduring sharp, salty gusts of wind. Workers that appear more like speckles next to the ship secure the vessel and drive forklifts onto the deck. They offload thousands of pallets of bananas from the docked cargo vessels and move them into controlled atmosphere rooms to sufficiently ripen until they can be transported to a Publix in Florida, a HyVee grocery store in Iowa, a King Soopers in Colorado, or a Ralph's in California (Horsley, 2024).

Port Wilmington in Delaware receives 4,500 to 5,000 pallets of fresh fruit per day, especially bananas, pineapples, and berries (Steele, 2021).



Figure 2: Longshoremen use heavy machinery to load and unload cargo from ships. Photo Courtesy of Longshoreman.

The US Chamber of Commerce shows that the ILA's 36 ports handle 56% of all U.S. imports, which totals to approximately \$2.1 billion per day. Each port receives different goods: Boston receives fresh seafood and liquor; New York/New Jersey port receives fresh seafood, coffee, and tea; Philadelphia receives fresh fruit and vegetables; Norfolk receives beverages; Charleston receives sugar, palm oil, and beer; Houston receives citrus, molasses, and beer; and Jacksonville receives coffee (*Key Ports & Carriers In The Global Food Supply Chain*, 2014).

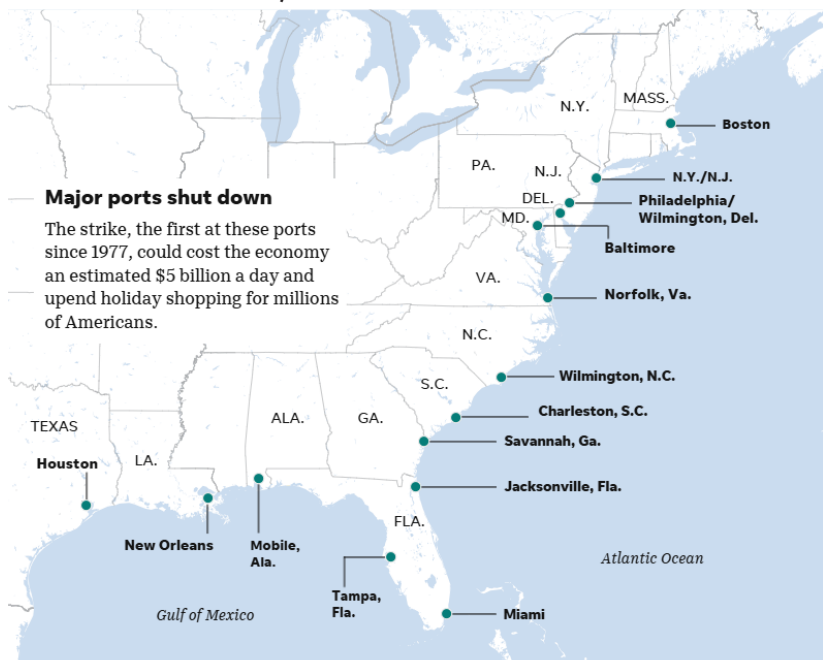
A prolonged strike could have suspended the transportation of all these foods, as there would be no longshoremen to remove the pallets of products from the incoming boats. As bundles of bananas sit atop each other, compressed into a wooden pallet, the concentration of ethylene gas increases. Banana peels emit ethylene gas, which increases the rate at which the other, surrounding fruits ripen. This can lead to faster ripening, and faster rotting, which results in higher

levels of food waste.

Wasted food emits methane, which is a pollutant that is 20-25x better at capturing and storing heat than carbon dioxide. The World Resources Institute shows that in 2009, 7%, or 8.4 billion pounds of North America's food waste was generated through transportation and distribution processes, including

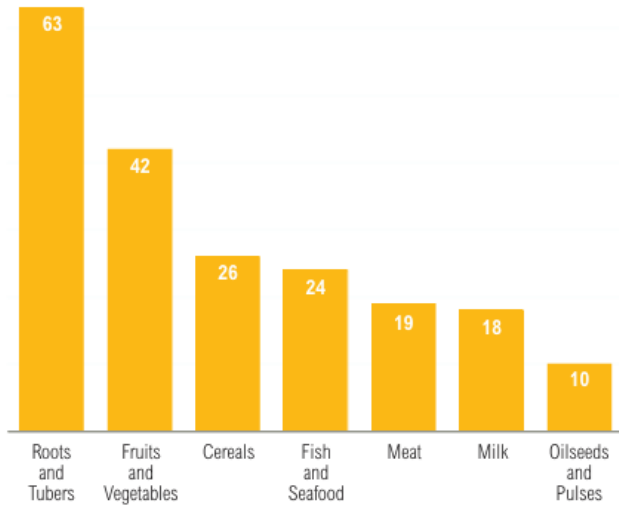
importation (*Key Ports & Carriers In The Global Food Supply Chain*, 2014). Annually, the US discards 120 billion pounds of food, most of which were fruits and vegetables.

Figure 3: Ports on the American East and Gulf Coasts affected by the October 2024 Longshoreman Strike. Graphic Courtesy of Janet Loehrke at USA Today.



SOURCE U.S. Maritime Alliance; GRAPHIC Janet Loehrke/USA TODAY

Figure 2 | **Share of Commodity Lost or Wasted, 2009 (Percent of kcal)**



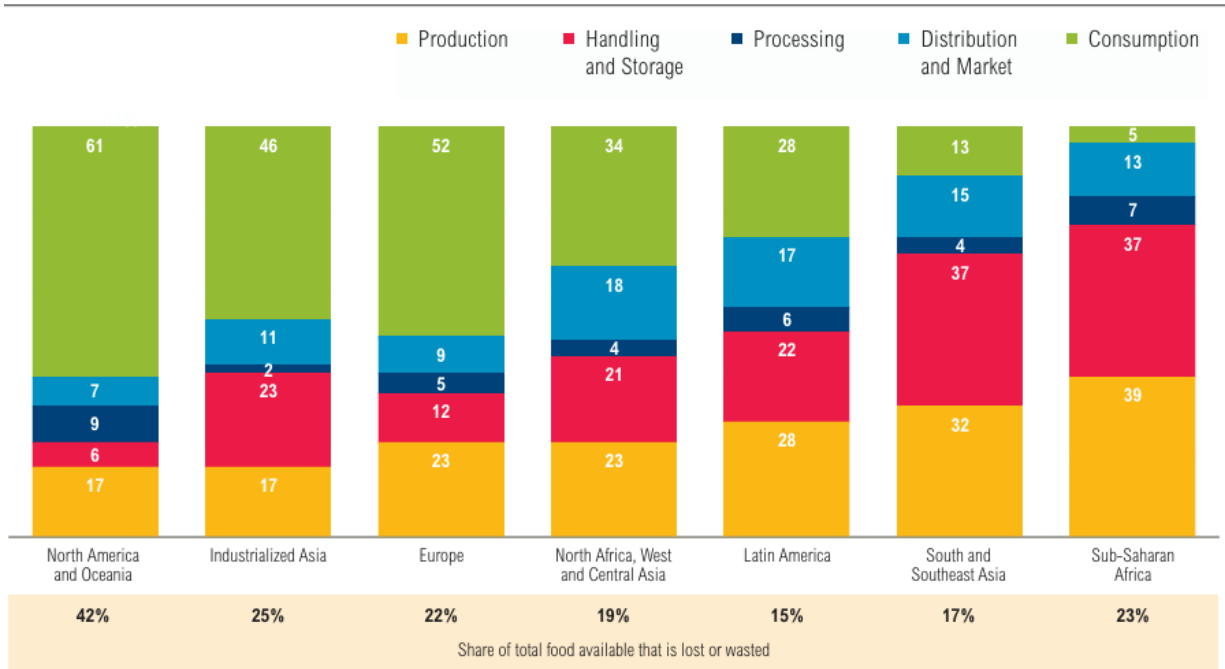
Note: Values displayed are of waste as a percent of food supply, defined here as the sum of the "Food" and "Processing" columns of the FAO Food Balance Sheet.

Source: WRI analysis based on FAO 2011.

Figure 4: Graph of Types of Food Lost or Wasted. Graph Courtesy of Lipinski et al.

These statistics and graphs reflect America's food waste when food supply chains operate

Figure 6 | **Food Lost or Wasted By Region and Stage in Value Chain, 2009 (Percent of kcal lost and wasted)**



uninterrupted from harvest to distribution. With even a gear out of place in the delicate machine of the supply chain—a stagnant boat, a cancelled order—America's food waste could spike. Had the longshoremen strike been prolonged, the quantity of food waste from America's distribution process could have increased. More waste during the distribution segment of the supply chain could have reduced the quantity of food reaching grocers—and, by extension, US consumers. The strike had the potential to reduce grocery store food selections, as well as start or contribute to food shortages.

However, in Boulder, Colorado, grocery store shelves generally remained stocked without suffering major food selection challenges. Although the longshoremen strike didn't disrupt Boulder's food system, it reveals the wasteful distribution system that grocery stores in Boulder do participate in.

Figure 5: Graph of Food Lost or Wasted by Region and Supply Chain Stage. Graph Courtesy of Lipinski et al.

Local farmers, grocers, and specialists have different opinions on how to reduce food waste in Boulder. Esther, an employee of Toohey & Sons, Organic Farmers, stood at her farmer's market stand decorated with green-and-yellow striped gourds, curly bushels of kale, and woven baskets of perfectly ripe heirloom tomatoes. Esther said that all her produce is picked the day before or the day of selling, which generates very little, if zero, food waste in the harvesting and distribution portions of the American food supply chain. "Anything we don't sell directly to consumers, we sell to restaurants or donate to churches," she explained. Sourcing food locally rather than importing it reduces food waste from the distributional sector of the supply chain.

Nude Foods Market is a grocery store that specializes in providing local produce and dairy to residents in the Boulder and Denver metro areas. "We compost every single day," Rachel P., an employee at the Boulder location, said. The store separates food waste into pig feed and regular compost, which further reduces the impact of food waste that never made it to a consumer's kitchen.

While local produce might generate less food waste than imported foods, one must wonder about the privilege of certain communities, and their access to grocery stores, food selection, and food affordability. Boulder is a relatively affluent community with ample access to both local and imported foods. Which communities would suffer the most from a prolonged strike? Will future food supply chain disruptions disproportionately affect racial minorities and low-income communities? If so, this positions the American food supply chain as racially skewed, and establishes food accessibility as an environmental justice issue.

Almost all Americans rely on imported foods, regardless of their access to local products. Imported food helps establish food security and consistent access. Rachel P. shared that sourcing from local suppliers can result in supply chain disruptions.

"Sometimes little things happen where [a local supplier] can't follow through on a date that they promised to deliver their products," she commented. For example, a local dairy supplier spent weeks moving their cows to a different location, which meant that Nude Foods didn't have milk or yogurt for weeks. "Customers were complaining, and we decided to purchase a different yogurt from a larger company so we could have [it] consistently," Rachel elaborated.

As a result, Nude Foods supplements their supply of local foods with products from large vendors and corporations, whom are typically more reliable regarding deliveries and quality control. "They're less likely to have issues," Rachel said.

Alex Macmillan has been involved in the University of Colorado at Boulder's (CU) greenhouse since 2017 and now oversees all operations of the greenhouse. He has a degree in horticulture and has experience with organic, vertical, and greenhouse farming. Since the greenhouse grows arugula, all-star lettuce, and red rock kale, it eliminates thousands of food miles and feeds hundreds of CU students daily. However, the greenhouse doesn't produce enough to feed all the students relying on the dining hall. "I work closely with the people that order the food to ensure they know what I'll be harvesting and when," he says. This allows CU's dining halls to order the correct amount of imported food to supplement the greenhouse produce and feed students.

Similarly to Nude Foods, Uncorked Kitchen, a restaurant, wine bar, and cooking school in Centennial, Colorado, utilizes a medley of local and imported foods to deliver food to customers. Uncorked prioritizes local proteins for themed cooking classes, but imports nearly all wines and supplementary ingredients. Supplementing local food supplies with imported foods allows Uncorked to educate their customers on different flavor profiles and cultural cuisines.

Zoe Hohman, the former culinary lead at

Uncorked, explained the process of ordering food and ingredients for the restaurant. “The process was through large purveyors, like US foods and What Chefs Want,” Hohman commented. These companies rely on longshoremen to transport imported food, so not only would a long strike affect grocery stores and an individual’s access to food, but also would disrupt restaurants. Such a strike would impact the economy through reducing available food for the purveyors to transport and reducing the available dishes and classes available at restaurants. In addition to reducing easy and affordable access to food, a strike would affect large corporations and local businesses that contribute to the economy.

Transportation

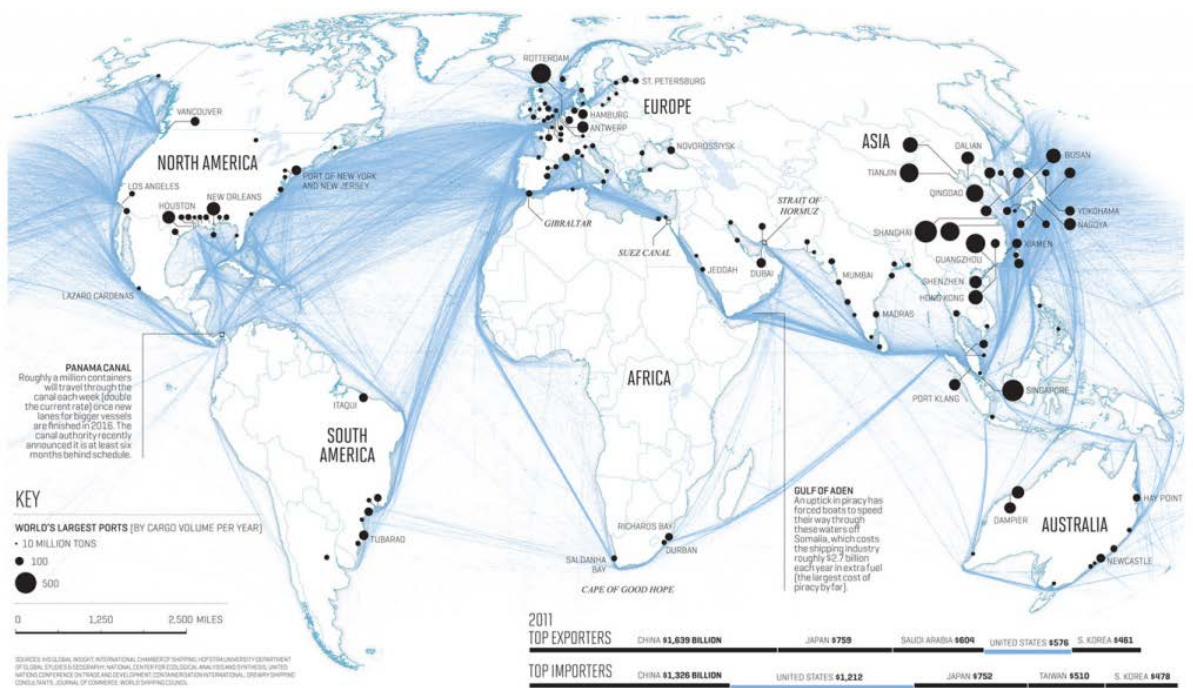
As a monstrous floating ship chugs through the Atlantic Ocean, its funnel expels puffs of black smoke and particulate matter into the surrounding atmosphere. Maritime sector emissions have risen by 20% since 2013 and accounted for 3% of global greenhouse gas emissions in 2023 (United Nations Conference on Trade and Development, 2023).

2023 research from the UN Trade and

Development shows the US ranked fourth for highest carbon dioxide emissions from maritime activities, coming in at 45.7 million metric tons of CO₂ (United Nations Conference on Trade and Development, 2023). Container ships and bulk carriers are the most polluting vessels, contributing 430.3 metric tons of carbon combined.

Aubrey Dunn, a student worker at the UCB greenhouse and an Environmental Studies major with an emphasis on sustainable farming, says, “It’s better to eat locally grown foods simply because of all the emissions that occur from transporting food all over the country and world.” Macmillan agreed, “[The greenhouse] reduces some food miles because our produce is walked from our cooler to the salad bar versus being trucked in.” During the strike, hundreds of vessels remained docked, which reduced transportation emissions. Although there was higher-than-normal food waste, there was less carbon dioxide emissions from transportation.

Figure 6: Global import and export sea routes. Graphic Courtesy of Nicholas Rapp, via The Network Effect by Aaron Pittman.



Supply Chain Scaries

“Well, it [the strike] was so short. Nobody had time to realize it was happening,” Esther said. While the strike was only three days, it was enough time to expose the environmental impacts of our food supply system and the delicacy of the U.S.’s supply chain. Most Americans blindly rely on the food importation system, not fully understanding the nuances of food waste and transportation.

The strike also exposed how delicate the machine of the supply chain is. If one gear stops working, the entire system could collapse. “Locally grown produce would be able to help [in the event of a major food supply chain disruption], but only for so long,” Macmillan commented. Especially considering quantity supplied, demand, and quality, imported foods do have their advantages.

There isn’t a right or wrong answer to the complicated environmental issue of food supply and the people behind it. Understanding the environmental implications of America’s delicate—and wasteful—food chain system will help us create a sturdier, less wasteful system. Americans can be more mindful of our food’s environmental consequences and the invisible laborers working to deliver that food to us.

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