

Meatpacking in the COVID-19 context: Barriers to disease mitigation, worker justice, and the need for sector reform

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Abstract

In January 2020, the coronavirus began spreading rapidly across the United States and became an emergent public health crisis. To mitigate the spread of the virus, state, local, and federal governments implemented various disease mitigation strategies including mask mandates, social distancing requirements, and business closures. However, under the Defense Production Act of 1950, meatpacking plants were designated as essential infrastructure and maintained operation throughout the pandemic. Drawing on 39 in-depth interviews, this article analyzes (1) factors that influenced responses to worker safety during COVID-19 in the meatpacking sector; (2) barriers to disease mitigation and worker justice; and (3) the consequences of industry concentration during an

unprecedented public health crisis. Research results show that inadequate safety measures implemented by meatpacking firms, particularly in the early months of the pandemic, when combined with limited federal oversight, contributed significantly to unsafe working conditions and increased risk of disease transmission. These findings highlight the need for reforming worker safety policies, diversification of the sector, and the development of a more robust workers' compensation system to better protect the health and safety of meatpacking workers.

Keywords

meatpacking sector, worker safety, food safety, consolidation, qualitative research, public health, COVID-19, pandemic

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Author Note

This paper is based on my dissertation, *COVID-19, Policy-making, and the Production of Harm in the Meatpacking Sector*. I received my PhD from the Department of Sociology at Colorado State University in August 2024 (Luxton, 2024).

Introduction

In January 2020, the coronavirus (COVID-19) began spreading rapidly across the U.S. and ultimately led to the death of over 1.2 million individuals (Worldometer, 2024). To mitigate the spread of the virus, state, local, and federal governments implemented various disease mitigation strategies including mask mandates, social distancing requirements, and business closures. Meatpacking plants, however, were designated as essential infrastructure under the Defense Production Act of 1950 and maintained continued operation during the pandemic. Due to the pandemic's novel nature and lack of available information, voluntary disease mitigation guidelines were inconsistently enforced, and the pressure to continue working created a highly risky environment for meatpacking workers. These risks were amplified by an already pre-existing dangerous workplace, pre-existing vulnerabilities related to the ethnic, racial, and socio-economic demographics of meatpacking workers, and a fragmented governance structure. By September 2021, over 59,000 workers had tested positive for COVID-19 and nearly 300 workers had died (Douglas, 2021). Drawing on in-depth interviews, this article provides an overview of factors that influenced responses to worker safety. The resulting research addresses barriers to disease mitigation and worker justice, and the consequences of industry concentration during an unprecedented public health crisis.

The meatpacking sector in the U.S. is highly concentrated and consolidated¹: three firms account for 83.5% of beef production, 66% of pork production, and 58.5% of chicken production (Hendrickson, 2015). The U.S. Department of Agriculture (USDA) regulates agriculture and food safety in the U.S., and the Occupational Health and Safety Administration (OSHA) oversees worker safety. The capacity of these agencies, however, has diminished over the years due to several factors, including increased deregulation and reduced government intervention in the private sector (Chang et al., 2021; Hathaway, 2020; Rabinowitz, 2022).

Diminished regulatory capacity has rendered government agencies less effective in implementing and monitoring safety regulations across workplaces during COVID-19 and beyond (Chang et al., 2021; DoL, 2021; Filip et al., 2022; Luxton, 2024; Rabinowitz, 2022). For example, while OSHA's mission is to ensure that "employees work in a safe and healthful environment by setting and enforcing standards, and by providing training, outreach, education and assistance" (OSHA, 2025), the ability for the agency to carry out their mission has been greatly diminished. Although OSHA has the regulatory authority to issue an emergency temporary standard (ETS) to address dangerous exposure to new hazards that are toxic or physically harmful, an ETS was not implemented during COVID-19. Instead, OSHA issued voluntary guidance and relied on existing standards that impose obligations upon employers to protect workers (CDC, 2020; Rabinowitz, 2022).

Research related to COVID-19 in the meatpacking sector largely relies on secondary data analysis and survey data (Dempsey et al., 2023; Ken & León, 2022; Krumel & Goodrich, 2023; Ramos et al., 2021; Stull, 2020; Taylor et al., 2020; Whitehead & Kim, 2022). Using survey data from 585 meatpacking workers, Ramos et al. (2021) analyzed the concerns and perceptions of COVID-19 among meatpacking workers in four states (Nebraska, Iowa, Kansas, and Missouri). Their findings suggest that safety measures were inconsistently implemented across multiple plants and, as a result, workers believed they were at high risk to exposure to COVID-19 in the workplace.

Additional research explored the link between meatpacking plants and increased community spread (Saitone et al., 2021; Taylor et al., 2020), the overall impact of COVID-19 on the meat supply chain (Whitehead & Kim, 2022) and considered additional factors that led to increased transmission among meatpacking workers, such as the physical proximity of workers (Krumel & Goodrich, 2023; Lou et al., 2023). Case investigations by Herstein et al. (2021) further analyzed the effectiveness of

¹ Consolidation is the process of companies merging or acquiring others, reducing the number of independent businesses in an industry, and driving concentration. Concentration refers to a small number of companies controlling a large share of an industry or market (Hendrickson et al., 2020).

industry-specific guidelines for mitigating COVID-19 transmission by looking at factors such as the density of workers, diversity of workforce, and prolonged close contact of personnel exacerbated COVID-19 outbreaks in meatpacking plants. Other research documents the relationship between agribusiness firms and the state, including how agribusiness actors leveraged corporate exceptionalism to influence the COVID-19 policymaking process (Dempsey et al, 2023; Ken & León, 2022). Although this research is valuable for identifying key factors related to disease transmission, there has been a lack of qualitative investigation related to COVID-19 responses in the meatpacking sector.

Drawing on 39 in-depth interviews, this article analyzes (1) factors that influenced responses to worker safety issues during COVID-19 in the meatpacking sector; (2) barriers to disease mitigation and worker justice; and (3) the consequences of industry concentration during an unprecedented public health crisis. This research advances existing scholarship by focusing on qualitative data collected from in-depth interviews with key stakeholders, including policymakers, bureaucrats, and worker advocates. These narratives detailed the barriers to effective disease mitigation, including the underfunding and understaffing of federal agencies, outcomes of decades of sector concentration and consolidation, and pre-existing issues with worker safety.

Literature Review

Below, I provide a brief overview of the meatpacking sector in the U.S. I discuss literature related to industry concentration and consolidation, worker safety issues prior to and during COVID-19, and public health responses to high rates of COVID-19 transmission among meatpacking workers.

The Meatpacking Sector in the U.S.

In the U.S., intensive animal production emerged in the wake of World War II and has now become the normal operating model for poultry and swine (Fitzgerald, 2010). The number of farm animals killed for consumption exceeds 80 billion annually, demonstrating the global scale of industrialized animal agriculture (Ritchie et al., 2019). Today, inten-

sive livestock operations, concentrated animal feeding operations, and large capacity meatpacking plants largely comprise the sector (McLeod-Kilmurray, 2012). Globally, the animal agriculture sector is dominated by three firms, JBS of Brazil (“JBS”), WH Group of China (“WH Group”), and Tyson of the U.S. (“Tyson”) (Hendrickson, 2015). Mergers and acquisitions enabled the consolidation of agribusiness actors, with top producers merging – and subsequently increasing their power (Hendrickson et al., 2020). Vertical integration, an organizational structure where one economic entity centrally controls production, has drastically changed the animal agriculture market and how meat is produced (Leonard, 2015; Silbergeld, 2016).

Although integration is not the same as a monopoly, it has similar impacts on restraining trade and reducing the economic power of competitors and workers. Due to sector integration, dominant firms have amassed considerable control over the entire meat supply chain, from animal farming practices to processing standards, allowing them to influence production methods favoring efficiency and cost reduction (Hendrickson et al., 2020). These companies also engage in extensive lobbying efforts that shape public policies and regulations governing the industry, affecting issues such as animal welfare standards, environmental regulations, and worker protections (Bennett, 2014; Leonard, 2015).

There are numerous issues associated with the meatpacking sector, including public health and environmental consequences, animal welfare concerns, and issues of worker safety (Bennett, 2014; Broadway & Stull, 2008; Eisnetz, 2009; Howard, 2016; Leonard, 2015; Silbergeld, 2016). Environmental implications have been reported extensively, which include water, air, and soil pollution as well as the intensive resource demands required to sustain industrial scale meat production (Gerbens-Leenes et al., 2013; Ritchie et al., 2022). Animals, too, suffer from this industrialized model and experience harm across multiple stages of production: from confinement to transportation, and during the process of being slaughtered (Bennett, 2014; Fitzgerald, 2015; Pachirat, 2011). While it is important to note these wide-ranging consequences, this article focuses on worker safety issues

in the meatpacking sector; issues that, I argue, were intensified during COVID-19.

Worker Safety Issues in the Meatpacking Sector during COVID-19 and Beyond

Meatpacking workers typically occupy vulnerable positions in society and earn low wages that exacerbate financial and physical hardship (Broadway & Stull, 2008; Eisnitz, 2009; Pachirat, 2011). In the U.S., 80% of meatpacking workers are people of color, 71% are non-citizens, and 37% are foreign born (Stuesse & Dollar, 2020). Close to half (45.1%) of meatpacking workers live with income below 200% of the Federal Poverty Level (FPL), with 12% living below the poverty line threshold (Rho et al., 2020). The meatpacking industry remains one of the few manufacturing sectors in the U.S. that does not require formal education, prior experience, or English proficiency. This results in a workforce predominantly composed of economically, racially, and socially marginalized workers (Broadway & Stull, 2008). Research indicates that agribusiness firms routinely recruit the most vulnerable laborers to sustain profits, often at the cost of worker safety. Historically, when employees have organized for improved conditions, agribusiness has responded by claiming labor shortages and seeking new, more easily exploited workers (Freshour & Williams, 2020; Stuesse & Helton, 2013).

Meatpacking plants are among the most dangerous workplaces in the U.S. and, on average, twenty-seven meatpacking workers a day suffer amputation or hospitalizations (Berkowitz & Dixon, 2023). Physical and psychological consequences include addiction issues, as well as a range of musculoskeletal, neurological, and respiratory disorders linked to the highly physical nature of meatpacking work (Blanchette, 2019; Eisnitz, 2009; Genoways, 2014). Workers have limited ability to report safety concerns due to a fear of retaliation, including job loss and deportation for those who lack proper documentation (Broadway & Stull, 2008; Pachirat, 2011). A decline in the percentage of unionized meatpacking workers - from 56.7% in 1983 to just 14.7% in 2020 - has also reduced worker power and protection (Chang et al., 2021). There are also issues associated with the workers'

compensation system that limit workers' ability to seek justice, including intimidation and retaliation. Additional concerns include a lack of transparent or accessible information, insufficient in-house medical treatment, and unforeseen termination for workplace injuries (Schofield et al., 2023; Stuesse, 2018).

In this article, I focus on the increased safety concerns and health issues experienced by meatpacking workers during COVID-19. Although COVID-19 posed risk to all, social determinants of health, or non-medical factors that influence health such as race, ethnicity, socio-economic status, and occupation (Braveman et al., 2011), were reflected in its impacts (Hawkins, 2020). Workers who were employed in essential industries like meatpacking had statistically higher risk of infection, with Black and Latinx workers disproportionately more likely to be employed in jobs where they risked greater exposure to COVID-19 (Hawkins, 2020). In the Centers for Disease Control and Prevention's (CDC) analysis of COVID-19 in the meatpacking sector, of the 9,919 cases in 21 states with reported race/ethnicity, 87% occurred among racial and ethnic minority workers (Waltenburg et al., 2020). Many meatpacking workers are low-income (Rho et al., 2020), and often lack access to healthcare (Herstein et al., 2021), and their economic vulnerability constrained their ability to stay home even when symptomatic during COVID-19.

Despite high case rates in the meatpacking sector, OSHA inspections were limited as the pandemic unfolded. This was due to a rise in virtual inspections, a reduction in number of in-person inspectors, and the shift of responsibility to the companies themselves to self-adjust and implement worker protections (Chang et al., 2021). Notably, OSHA's annual budget is only 7.5% of the Environmental Protection Agency's budget of \$600 million, despite covering millions of workplaces (Patel & Davis, 2023). In 2020, OSHA had the lowest number of on-board inspectors in the last 45 years and, although the agency received 15% more complaints compared to a similar period in 2019, it performed 50% fewer inspections (U.S. Department of Labor, 2021). From 2017 - 2021, OSHA issued eight citations, totaling less than \$80,000, to major meatpacking companies (Select Subcommittee on

the Coronavirus Crisis, 2021). With minimal oversight due to reduced agency capacity, meatpacking workers were left increasingly vulnerable to unsafe conditions during COVID-19, further highlighting the need for research on barriers to disease mitigation and worker justice.

Methods

This research utilizes qualitative research methods. Qualitative research prioritizes the exploration of participants' meanings, lived experiences, and perspectives to develop a deeper understanding of the phenomena in question (Mays et al., 2005). Instead of drawing from a large sample of an entire population, qualitative researchers seek to acquire information from smaller groups of individuals to capture their perspectives related to an event, experience, or situation (Ragin et al., 2004). I was most interested in capturing the lived experiences of individuals relevant to the U.S. meatpacking sector, so I elected to use in-depth interviews to learn more about the key factors that shape policy making and disease mitigation strategies. Insights from workers', worker advocates', and policymakers' on their own experiences during the pandemic provided additional examples to consider.

To identify and recruit participants, I used purposive sampling, which refers to the selection of participants with relevant qualities to address the research inquiry (Creswell & Poth, 2017). Unlike random sampling, which includes a diverse section of respondents to enhance generalizability, purposive sampling aims to obtain information-rich data from a non-representative sample. I used a multi-pronged strategy: internet searches, leveraging local contacts, and a snowball approach where I asked interviewees to share my contact information with their colleagues. During document analysis for the broader study² which this article is based upon, I also compiled a list of individuals who were frequently mentioned. From this sample, all individuals with publicly available contact information were recruited to participate. In total, my sample was composed of 38 individuals, and I conducted fol-

low-up interviews with two participants and two joint interviews. Participants included workers (n=4), attorneys and reporters (n=5), advocacy representatives (n=6), and federal, state, and local representatives (n=23). To protect participant confidentiality, I employ broad terms to describe interviewees' occupations.

Between August 2022 to March 2023, I conducted interviews in-person, over the phone, or over a video conferencing platform, based on the interviewee's preference and geographical location. All interviews were recorded with the permission of the participant, transcribed, and analyzed on NVivo, a qualitative data analysis software. I used an inductive and iterative approach to data analysis, focusing on techniques such as open coding, category development, and abstraction to transition from specific findings to broader, more generalized insights (Elo & Kyngäs, 2008). I moved back and forth between participant accounts to illustrate the nuances associated with policy making processes, the subsequent impacts on workers, and the perspectives shared across interviewees. During analysis, I composed memos to document emerging hypotheses, analytical questions, and data interpretations. Following the initial round of line-by-line coding of interviews (Saldaña, 2021), I revisited the coded interview transcripts and organized and collapsed codes into larger analytic themes. These themes represent key findings from the data and are the foundation of the analysis I present below.

Findings

Several key findings emerged in relation to (1) factors that influenced responses to worker safety issues during COVID-19; (2) barriers to disease mitigation and worker justice; and (3) the consequences of industry concentration during an unprecedented public health crisis. In the early months of the pandemic, inadequate safety measures and barriers to federal oversight contributed to unsafe workplace conditions and elevated risks of disease transmission. Pre-existing issues in the meatpacking sector, including a diverse and

² This research is part of a broader project that used in-depth interviews, qualitative content analysis (Elo & Kyngäs, 2007), and critical policy ethnography (Dubois, 2009; 2015). Here, I focus on findings obtained from interview data. Data from secondary document analysis and critical policy ethnography are described in forthcoming manuscripts.

marginalized labor force, posed additional difficulties to disease mitigation and accessing workers' compensation in cases of severe COVID-19. The vulnerabilities of a consolidated, industrialized sector highlight the need for increased interagency collaboration that recognizes the interconnectedness of the food system. These findings are discussed in greater detail below.

Barriers to Federal Oversight During COVID-19

Interviewees described how federal oversight of the meatpacking sector faced significant challenges during COVID-19, including resource constraints, shifting enforcement strategies, and an increased reliance on corporate self-regulation. Central themes related to barriers in federal oversight were (1) regulatory separation between food and worker safety; (2) issues of underfunding and understaffing; and (3) limitations to the OSHA inspection process.

Participants identified how regulatory delineation between food and worker safety has created barriers to policymaking and coordination. Due to the regulatory separation between worker and food safety, the USDA has no authority over issues of worker safety. In an interview with one USDA official, she spoke about the Food Safety and Inspection Service's (FSIS) historical "hands-off" approach to occupational health.

Historically, FSIS has kind of taken a hands-off approach from occupational health requirements, like we've said, "Okay, that's OSHA's lane," you know, industry ... that's who you respond to or report on those things. We're pretty much food safety only. And what we learned from COVID is that ... occupational health and food safety overlap.

Issues with occupational health risks posed challenges to food safety, including having appropriate staffing levels, implementing hazard plans, and verifying food safety. Although FSIS inspectors were present in plants, they had no authority over the enforcement of worker health protections. Furthermore, because of the agency's focus on food safety rather than worker safety, FSIS inspec-

tors have historically not been trained to identify worker safety hazards.

While OSHA and the CDC issued guidance aimed at mitigating disease transmission, these recommendations were voluntary rather than mandated (CDC, 2020). Because firms were encouraged, but not required, to adopt guidelines, they could be adopted inconsistently – shaping disparities in COVID-19 mitigation efforts and enabling limited federal oversight. A lack of company engagement with disease mitigation strategies was not seen to be a surprise to interviewees, and instead was indicative of a historical pattern of worker exploitation. For example, one worker advocate explained:

I don't know that there were any real surprises [with the industry's response]. We know that this industry is tough. It's challenging. They have a reputation for kind of preying on vulnerable people, not providing humane conditions sometimes. What we saw during the pandemic ... was pretty much business as usual.

Companies were seen as repeat violators of worker safety standards due to their vested interest in profit and maintaining production; an interest that was perceived as overshadowing worker safety. Although OSHA and CDC guidance relied on voluntary compliance by meatpacking firms—thereby facilitating corporate self-regulation—interviewees tended to attribute responsibility for disease mitigation to federal agencies rather than to the companies themselves.

Thus, many interviewees blamed OSHA for failing to protect workers. Interviewees did, however, point to chronic understaffing and underfunding as key factors undermining the agency's effectiveness rather than individual actors within OSHA. In an interview with a labor advocate who represents meatpacking workers in the South, she argued:

It's impossible to make OSHA really enforce the rights of workers. OSHA doesn't have a lot of money, or inspectors ... and even if they come to inspect the plant, there is no preventive measures to prevent the company from

going to do it [violate worker safety guidelines] again. It looks pretty much like they cite the company; they take the money and then what? The company probably is gonna do that for some time, but probably they're going to repeat it [the violation]. ... OSHA needs to do more, but we can't rely on OSHA or the government to protect workers rights because every administration, they're at risk of losing funds.

Other interviewees also described how the agency's enforcement actions relied on reactive measures (e.g., violation fines) rather than proactive prevention (e.g., developing specific policies to address risk in meatpacking plants). Without sufficient funding to increase inspection frequency or implement comprehensive worker safety programs, OSHA's enforcement efficacy was constrained.

In addition, interviewees from OSHA described various pre-existing challenges when gathering information from workers during inspections, including language barriers, issues of procedural justice, and worker fear. In an interview with an OSHA compliance officer, he detailed some of the challenges faced when attempting to gather information from workers.

I've shown up to sites where they think I am customs and immigration, and they leave. ... I've showed up sites where they're like, I'm not going to talk to you. No matter what, I'm not talking to you. And then I'll figure out a way to get their contact information. And we subpoena them, and sometimes I've had cases where they leave the country. There's nothing that I can do.

Due to language barriers, workers may not be aware of OSHA's role in workplace safety protection nor understand the goal of workplace investigation. Instead, workers may fear speaking with OSHA officials due to a precarious employment and legal status – limiting the ability for OSHA actors to gather information related to safety viola-

tions. Both reduced agency capacity and pre-existing limitations to the inspection process posed difficulties to not only mitigating disease transmission but gathering information from workers related to workplace safety concerns.

Plant Structure, a Diverse Workforce, and Issues of Worker (In)Justice

In addition to barriers to federal oversight, interviewees identified a variety of factors that impacted meatpacking workers during COVID-19. These included issues associated with the provisions of personal protective equipment (PPE), barriers to social distancing, a lack of accessible information, and, sometimes, explicit pressure from supervisors and management to continue working. Some participants described how the nature of meatpacking plants posed difficulties to disease mitigation and, instead, led to increased risk of spread. Working conditions, where many employees stand shoulder-to-shoulder and face-to-face on the line, made following social distancing guidelines challenging. For example, as one worker advocate described, "it's impossible to really socially distance... because... it's [a] very crowded space with very narrow distances [between workers]."

Interviewees also identified that the diversity of languages³ spoken by meatpacking workers amplified challenges to disseminating information and accessing information. In an interview with an industrial hygienist, he identified language barriers as a key challenge for safety and health, explaining:

You may have 50 different languages spoken in one of these plants. And if you're a safety and health manager responsible for a workforce that speaks 50 different languages, including Swahili, how are you going to do training for these workers? And how are you going to make sure that they understand what they're supposed to do in terms of this fast-moving pandemic? So, I think the biggest challenge is just getting the information out in a way that people can understand it.

³ The top language spoken nationally by meatpacking workers are Spanish (65%), English (5%), Vietnamese (2.4%), Karen languages (2.3%), Cushitic languages (2.2%), and other (22.8%) (Stuesse & Dollar, 2020) .

Other participants also highlighted how language barriers made it difficult for workers to access information about the processes involved when testing positive for COVID-19, including how to obtain sick pay. Worker advocates described a lack of availability of accessible information and reported that documents were often only available in English.

In some cases, workers reported direct pressure from supervisors to continue working and refrain from voicing complaints. In other instances, fear was influenced by an underlying threat of job loss. In an interview with a community organizer, she described poor working conditions and the role of fear in keeping employees operative during the early months of the pandemic, despite issues with implemented safety measures:

We've been hearing stories from people inside that they were afraid to [go to work] because they were afraid to be terminated. They needed their jobs. So, we were hearing that they were violating state mandates. ... People were still working shoulder-to-shoulder. They didn't have the social distancing that is required. They were given PPE but it was like a mask a week. ... There was a lot of threats towards them from supervisors to not speak out, not complain, and people were getting sick. ... "You just stay here and work, basically, endure it. If you complain, you'll be fired." I mean, it was a total totalitarian atmosphere. ... These people were just so fearful. You think about as a human, you're worried about yourself, but you're worried about taking it home to your kids. Your parents. I mean, this is pretty stressful. Then you're being told, 'if you don't do this, you're gonna lose your job'.

Working in environments with limited social distancing and restricted access to sick pay or healthcare—created a situation where workers, many of whom were already vulnerable due to their immigrant and refugee status, faced particularly high risks of exposure to and transmission of COVID-19. While pressure from management to continue working is not unique to COVID-19 working conditions (Broadway & Stull, 2008;

Eisnitz, 2008; Genoways, 2014), broader public health consequences of reduced worker power, including higher rates of community transmission (Taylor et al., 2020) were exemplified during the pandemic.

Moreover, although workers in the U.S. are eligible for workers' compensation—e.g. financial and medical benefits—when injured, suffering from an occupational disease, or otherwise impaired by their workplace, interview data provided evidence that navigating this system is difficult. Attorneys described some of the strategies firms use to evade workers' compensation claims and legal accountability, which included offering on-site treatment to workers through an in-house clinic, delaying providing information related to clients' cases, and utilizing the racial and cultural differences of workers to reduce complaints and claims.

Because COVID-19 transmission was also occurring in the broader community, and not just workplaces, significant proof was necessary to demonstrate the point of disease contraction. In an interview with one attorney, he explained that the primary contestation to COVID-19 related claims was identifying the point of exposure as the workplace. He stated:

The primary defense was, well, it's a global pandemic, everyone's getting it everywhere. ... it just can't be shown that ... your client caught it here. ... We have to look at a number of things in order to prove our case. ... You kind of have to show exposure at work was very different than ... going to the store. When you go to the store, it's a big crowd, you're not with the same people for hours of time, etc. And then finally, [we] have to show that there were other people in that same department that also start coming down with symptoms, preferably ... before and after [our client]. Those are kind of some factual things that went into it.

Workers' compensation cases were also delegated to the most severe cases, including long-term impacts and death, rather than short-term. This was due to the barriers in the settlement process,

including the length of time for claims to be processed and increased community spread that heightened the difficulties of identifying work as the site of exposure. These barriers likely limited the number of workers' compensation cases filed during COVID-19, as well as served as a further incentive for workers to continue working, even when sick, due to economic and financial pressures.

The Costs of Consolidation and Recognizing Food System Interconnectedness

The final key findings related to (1) the weaknesses of a consolidated, industrialized meatpacking sector and, relatedly, (2) the interconnectedness of the food system. During COVID-19, issues with worker safety impacted not only the workers, but animals and producers as well. After decades of consolidation, there are about 800 federally inspected meatpacking facilities in the U.S., but only a small percentage account for the billions of animals that are slaughtered (USDA, 2020). Due to consolidation, a closure of 30 to 40 plants during COVID-19 resulted in beef and pork slaughtering capacity being cut by 25% and 40%, respectively (Kevany, 2020).

Some interviewees highlighted how the issues associated with worker safety and subsequent plant closures created a ripple effect across the sector. For example, a representative from the USDA explained:

There were a lot of issues with worker safety [with] worker illness and slaughter plants, and they just couldn't keep enough staff. ... There was a backlog of animals that couldn't be slaughtered. ... Some of them did kind of a humane euthanasia because there was nowhere for those animals to go. Others just had to get creative and find other places to send them, other ways to hold those animals a little bit longer.

Plant closures and staffing issues led to delays in processing animals; delays that led to farmers having to kill some of their herd if they were not able to be slaughtered in a timely manner. In an interview with an industrial hygienist, he further

detailed how consolidation, efficiency, and mass industrialization hindered the ability to close plants.

They have like a three-day window to slaughter a chicken. And if they don't slaughter that chicken in that three-day window, the chicken is too big, and it cannot be slaughtered in that plant. ... It's cheaper to destroy the chickens because they can't use their automated equipment. So, shutting down a plant, you end up destroying millions of chickens. ... Your supply line is set ... so you have a schedule of you're gonna bring your [chickens or cattle or] pigs on this date. ... It all kind of backs up along the way. And somebody ends up with too many pigs or cattle. ... We have this industrialized system that just makes it very difficult to shut down without consequence. It's really expensive to shut down.

The consequences of relying on a mass production model became evident when processing delays during plant closures disrupted scheduled livestock operations. Some animals simply cannot be processed through meatpacking facilities when they reach a certain size, such as chickens. Many farmers culled their herd in the early months of the pandemic, with more than 10 million hens and up to 10 million pigs killed due to facility shutdowns (Kevany, 2020).

Although the Pandemic Livestock Indemnity Program (PLIP) was introduced retroactively in July 2021 to mitigate culling costs, it excluded contract farmers—who accounted for 49% of livestock production in 2017 (MacDonald & Burns, 2019). Because contract growers do not own the animals they raise, they were not considered to have incurred the same type of financial loss as owners and were exempt from PLIP. Research showed, however, that contract growers in the poultry sector lost over \$175 million in revenue due to factors such as abandoned flocks, delays in flock placement, and a reduction in flock size flocks (Dorfman & Anderson, 2020). The exclusion of contract farmers, despite their economic losses, further highlights the inequitable distribution of risks within concentration and vertical integration.

These findings also illustrate how consolidation posed a barrier to closing plants temporarily—closures that, when implemented, had positive impacts on reducing outbreak rates among workers and in their broader community (Taylor et al., 2020). As described above, plant closures and a reduced workforce also posed difficulties to processing animals and maintaining the supply chain. These constraints not only indicate the consequences of a consolidated system, but of the need for approaching the food system as a system. As interviewees from federal agencies like the USDA and CDC recognized the interconnectedness of human and animal health, they also described a need for enhanced interagency coordination. One interviewee from the USDA explained that “both agencies [USDA and OSHA] need to be aware of things that are of mutual interest to both agencies... we can work together to address those issues.” Across interviews, respondents from federal agencies highlighted the importance of developing and expanding collaboration among agency teams to improve public health, worker safety, and food safety.

Discussion

This article used 39 in-depth interviews to document (1) factors that influenced responses to worker safety issues during COVID-19; (2) barriers to disease mitigation and worker justice; and (3) the consequences of industry concentration during an unprecedented public health crisis.

First, interviewees identified how the regulatory delineation between food and worker safety posed significant barriers in addressing overlapping issues. When responsibilities are dispersed across multiple regulatory agencies, coordination and communication between these entities is critical. Notably, respondents identified that pre-existing processes and communication were not as robust as they could be due to differences in agency responsibility, resource limitations, and communication challenges. Barriers to coordinating responses were further amplified by underfunding, understaffing, and voluntary guidelines that favored corporate self-regulation over federal intervention. While the regulatory delineation between food safety (USDA), worker

safety (OSHA), and public health (CDC) can pose challenges to collaboration, COVID-19 illustrated the need for more coordinated responses to disease outbreaks that transcend agency boundaries.

Policy directives, such as the 2022 updated Memorandum of Understanding between the FSIS and OSHA, which provides guidance on collaboration and information sharing, are an important element of strengthening interagency coordination. Working groups, joint conferences, and interagency trainings can further enhance coordination across agencies. Efforts including the One Health Coordination Unit, launched in 2024, exemplify a federal commitment to strengthening interagency collaboration and provide an avenue for developing and strengthening pathways of coordination and communication. Furthermore, increased funding, oversight, and expanded regulatory power is key to improving agency capacity to respond to issues related to worker and food safety. This includes increasing the number of OSHA inspectors and developing improved standards that are specific to the meatpacking sector to address dangerous and hazardous working conditions. Although the 2025 Trump administration has thus far focused on decreasing federal agency funding and reducing the federal workforce (Fowler, 2025), these agencies play a critical role in maintaining not only our food system but our broader society. Investing in and expanding regulatory capacity, rather than reducing federal infrastructure in favor of corporate-self regulation, is critical to upholding public health and our food system.

Second, interview data illustrated several barriers to disease mitigation and worker justice, including employee fear, language diversity, and limited awareness of workplace rights. These findings contribute to a small body of research that has examined how the structure of meatpacking work influenced transmission rates (Herstein et al., 2021; Krumel & Goodrich, 2023; Lou et al., 2023). Although research has previously documented the vulnerabilities experienced by meatpacking workers (Bennett, 2014; Eisnetz, 2009; Howard, 2016; Leonard, 2015; Stuesse, 2018), the results of this research have important implications for enhancing worker protections.

Stronger anti-retaliation measures are needed to truly protect workers and enable the opportunity to report safety issues without fear. Many workers fear the threat of retaliation, so the opportunity exists for plant inspectors and union stewards to play a more critical role in documenting and reporting workplace issues. Expanding pathways to citizenship for meatpacking workers can also enhance their ability to organize for better working conditions and reduce fear of retaliation in the form of deportation or visa loss. At present, this recommendation is difficult to actualize given ongoing and enhanced deportation of undocumented immigrants. The real threat of deportation makes filing or making a complaint even less likely (Dorn, 2025; Garsd, 2025). Yet, even in the face of these constraints and the current political-economic context, it remains critical to continue to advocate for policy initiatives aimed at increasing worker protections and access to citizenship.

Third, pre-existing issues related to information transparency, underreported injuries, and contested workplace injuries were further compounded during the pandemic, where COVID-19 became a contested workplace illness. Accounts from attorneys, workers, and worker advocates highlighted the need to recognize the diversity of meatpacking workers and their social location in disease mitigation strategies and in the workers' compensation system. In 18 states, a presumptions bill, based on the claim that an employee's exposure to, or contraction of, COVID-19 is work-related or is a compensable injury or disease, was passed to increase the ability of essential workers to receive workers' compensation (Kersey, 2022).

While COVID-19 work-related presumptions expired by 2023, these presumptions represented an important avenue in enhancing access to workers' compensation. Streamlining claims processing, increasing wage replacement, expanding coverage for repetitive and long-term injuries, and ensuring better access to medical care and rehabilitation are important elements of improving the workers' compensation system. Bolstering the power of unions, and the presence of union stewards within plants, is also key to protecting workers and providing education about their rights, including workers' compensation. In right-to-work states,

where employees are not unionized, funding local worker advocacy groups is critical. Including worker voices in policies aimed at worker safety and compensation is key, as their lived experiences should inform the safety and health rules designed to protect them.

Interview data also illuminated the outcomes of a consolidated system during a public health crisis. Weaknesses were illustrated by supply chain breakdowns during COVID-19, intensified worker safety issues, plant closures, and the challenges of implementing disease mitigation measures. Other scholars have identified the risks of a consolidated and industrialized agrifood system (Hendrickson, 2015; Hendrickson et al., 2020; Howard, 2016), including how this framework constrains food system resilience and increases environmental risk (Welsh et al., 2003). Further research that captures the perspectives of meatpacking workers, policymakers, and other key stakeholders such as farmers and contract growers would be beneficial in developing measures aimed at enhancing worker safety, regulatory capacity, and diversifying the meatpacking sector.


In 2024, the Biden-Harris Meat and Poultry Processing Expansion Program and the Local Meat Capacity Grant Program were created to increase competition, strengthen food supply chains, and enhance local capacity in the meatpacking and processing sector (USDA National Agricultural Statistics Service, 2024). This policy initiative marks an important step in addressing corporate consolidation in the meatpacking sector. Other scholars have provided important directions to developing a local and regional meat supply chain, including the need for commitment and coordination across the food chain. Key considerations include addressing labor shortages and providing more resources related to regulatory compliance for small scale producers (Richard & Vassalos, 2020; Syukron & Su, 2023). Plant-based proteins can also play a critical role in divesting from the current industrialized animal agriculture system, especially given their comparatively lower impact on the environment, animal welfare, and public health (Bryant, 2022). In the face of future climate-related emergencies, public health events, and zoonotic diseases, it is critical to strengthen and diversify our food system through

policies that promote sustainable agriculture, support local and regional food production, and enhance worker safety.

Conclusion

Drawing on 39 in-depth interviews, this article identified factors that influenced responses to worker safety issues during COVID-19; barriers to disease mitigation and worker justice; and the consequences of industry concentration during an unprecedented public health crisis. These findings illustrate the consequences of corporate self-regulation on worker safety, including limitations with federal oversight and responses. In addition, language barriers, a lack of PPE, and difficulties with navigating the workers' compensation system provided significant challenges when addressing disease mitigation and worker justice. Implications of a concentrated and consolidated sector were made more evident during COVID-19 and included unprecedented difficulties due to ripple effects in the supply chain. Moreover, interviewees highlighted how COVID-19 illustrated the interconnected nature of the food system and the need to develop and strengthen inter- and intra-agency collaborations.

This research has important implications for increasing the regulatory power of federal agencies. Enhancing the capacity of regulatory agencies is

essential to ensure that workplace safety standards are met and that public health guidelines are effectively developed and implemented without industry interference. Strengthening interagency coordination and collaboration through strategies like memorandum of understanding's, working groups, and joint conferences is critical when developing responses that address crises that transcend agency boundaries. Furthermore, it is essential to develop safety regulations that incorporate the diverse backgrounds and needs of workers, increase the oversight of the meatpacking sector, and protect workers from retaliation when raising safety concerns. Expanding initiatives that support small and independent processors, decrease industry consolidation, invest in plant-based proteins, and promote fairer competition is crucial to diversifying the meatpacking sector. Implementing these strategies and policy changes would offer a significant opportunity to develop a more robust and resilient agri-food system. 

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