

Environmental Justice for Food System Workers: Heat- Illness Prevention Standards as One Step Toward Just Transition

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PACE ENVIRONMENTAL LAW REVIEW

ARTICLE

Environmental Justice for Food System Workers: Heat-Illness Prevention Standards as One Step Toward Just Transition

SARAH A. MATSUMOTO*

ABSTRACT

The recent dual crises of the COVID-19 pandemic and extreme heat in the Pacific Northwest have brought environmental injustices for food system workers into stark view. These events prompt us to reflect on how and why our existing laws, some of which expressly include environmental justice “tools,” failed to fully protect food system workers during times of crisis, and what changes we might implement to ensure that people employed in food system jobs are safe at their places of work. These events also revealed the need for proactive, prospective changes now before another crisis occurs; indeed, experts believe that global disease outbreaks and extreme heat events are likely to recur, and with greater frequency.¹

Using Oregon’s heat illness prevention rules as an illustration, this Article analyzes the extent to which heat standards to protect worker health and safety serve to further various aspects of environmental justice. Applying

* Assistant Professor of Clinical Education, Willamette University College of Law. I am thankful for the perspectives and questions from participants in the 2022 Pace Environmental Law Review Symposium “Labor and the Green New Deal,” and for the patience and helpful suggestions from editors of the Pace Environmental Law Review. I am grateful to all those who work to feed us.

1. Marco Marani et al., *Intensity and Frequency of Extreme Novel Epidemics*, 118 PROCEEDINGS OF THE NAT’L ACAD. OF SCI. (Aug. 23, 2021), <https://doi.org/10.1073/pnas.2105482118> [<https://perma.cc/H5D4-X7RW>] (explaining that “we estimate that the yearly probability of occurrence of extreme epidemics can increase up to threefold in the coming decades.”); EPA & CDC, CLIMATE CHANGE AND EXTREME HEAT: WHAT YOU CAN DO TO PREPARE 1 (Oct. 2016) (explaining that “Extreme heat events in the United States are already occurring and expected to become more common, more severe, and longer-lasting as our climate changes.”).

Professor Robert Kuehn’s taxonomy of environmental justice, I explore the ways that such standards might promote distributive, procedural, corrective, and social justice, and I identify corresponding limits. While heat standards provide much-needed, immediate protection for food system workers and others, large-scale, transformative change to the food system is needed if we are serious about promoting justice for some of the most essential members of our society.

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INTRODUCTION

The Farm Bill, a large, omnibus piece of legislation renewed every five years or so, will be an early priority for the 118th Congress, and provides one of the few opportunities for bipartisanship in an otherwise divided legislature. Initially focused on providing financial support for farmers when crop prices fell during the Great Depression, the Farm Bill has increasingly expanded in scope.² The most recent Bill, enacted in December 2018, includes twelve titles, with programs ranging from commodity subsidies and crop insurance to nutrition and food assistance programs; from conservation and

2. RENÉE JOHNSON & JIM MONKE, CONG. RSCH. SERV., IFI2047, FARM BILL PRIMER: WHAT IS THE FARM BILL? (2022), <https://crsreports.congress.gov/product/pdf/IF/IFI2047> [<https://perma.cc/W3UG-NXEY>].

land stewardship to access to loans and technical support for farming operations and rural development.³

In anticipation of the upcoming deliberation on the Farm Bill package, a coalition of over 150 organizations sent a letter to President Biden in September 2022.⁴ The groups include national organizations like the Union of Concerned Scientists and Trust for Public Land, and local groups, including Oregon-based groups PCUN and Oregon Climate and Agriculture Network. The groups' letter urges the president to call for a bill that would build on his administration's efforts to "reduce economic inequality, bridge the nation's racial divides, end hunger, confront the climate crisis, improve nutrition and food safety, and protect and support farmers, workers, and communities."⁵ Specifically, the groups recommend that "equity and justice must be at the center of every facet of the next Farm Bill" in an effort to repair discrimination against and recognize contributions of farmers and communities of color, Tribal Nations, and food and farm workers.⁶

The letter also recognized the impacts of the climate crisis and COVID-19 on food system workers, and called for changes that would protect workers' health. The groups insist that the next Farm Bill must "protect food and farm workers from pesticides and extreme heat" and must invest in research, technical assistance, and financial incentives to enable farmers to reduce emissions and to implement practices and labor policies that would bolster resilience to extreme weather. Acknowledging the vulnerability of food and farm workers revealed by the COVID-19 pandemic, the groups advocate for a substantial investment in the "people who plant, harvest, process, transport, sell, and serve our food and administer our food programs[.]"⁷

The transformative nature of the groups' priorities is consistent with a groundswell of energy around workers' rights and climate activism over the last year. Major corporations, like Amazon and Starbucks, have remained in the news as employees sought to unionize, even in the face of unfriendly labor laws.⁸ Youth-led events, like Fridays for Future, boast participation by

3. *Id.*

4. Letter from Union of Concerned Scientists et al. to Hon. Joseph R. Biden, Jr. (Sept. 13, 2022), <https://ucs-documents.s3.amazonaws.com/food-environment/Transformational-Farm-Bill-Letter-Final.pdf> [<https://perma.cc/9YGX-P4VA>].

5. *Id.*

6. *Id.*

7. *Id.*

8. Chris Isidore, *Despite Union Wins at Starbucks, Amazon and Apple, Labor Laws Keep Cards Stacked Against Organizers*, CNN BUSINESS (Sept. 5, 2022, 4:25 PM) <https://www.cnn.com/2022/09/05/business/union-organizing-efforts/index.html> [<https://perma.cc/T8XN-N2UN>].

millions of people worldwide.⁹ In the United States, the Inflation Reduction Act committed billions of dollars to environmental justice and climate-friendly agriculture.¹⁰ To be clear, the Act also expands onshore and offshore oil and gas drilling, and funds controversial, unproven carbon capture and storage, making it the subject of criticism by many frontline communities.¹¹ Still, the Act is historic in its investment in environmental justice grants and other initiatives, leaving at least some room for optimism around broader environmental justice efforts.

This Article examines the ability of heat illness prevention rules, or heat standards, to further certain aspects of environmental justice for food system workers. The discussion proceeds as follows: Part I provides an overview of environmental law and justice in the United States, including a discussion of a specific environmental justice community and farmworker activism. Part II addresses the Pacific Northwest's extreme heat events in the summer of 2021, and describes Oregon's rulemaking and final heat illness prevention rules. Part III analyzes those rules and the rulemaking process using a four-part analytical framework. Part IV highlights agricultural exceptionalism as a limitation on the ability of heat standards to fully advance environmental justice, and offers suggestions for additional areas of focus.

I. Background of Environmental Law & Justice

Although the phrase “environmental justice” has found its way into fairly widespread use, and is included—at least in theory—as a priority for the Biden-Harris administration,¹² it remains difficult to distill down to a

9. *Strike Statistics*, FRIDAYS FOR FUTURE, <https://fridaysforfuture.org/what-we-do/strike-statistics/> [<https://perma.cc/JA33-T9QC>] (chart showing participation over time).

10. EDF Staff, *The Inflation Reduction Act: A Breakthrough for Lower Energy Costs and Climate Progress*, EDF (Nov. 16, 2022), <https://www.edf.org/blog/2022/11/16/inflation-reduction-act-breakthrough-lower-energy-costs-and-climate-progress> [<https://perma.cc/W8CZ-9CNE>].

11. Brentin Mock, *Was the Climate Law a Win for Environmental Justice? It's Complicated*, BLOOMBERG (Aug. 30, 2022, 8:31 AM), <https://www.bloomberg.com/news/articles/2022-08-30/was-the-inflation-reduction-act-a-win-for-climate-justice-it-s-complicated> [<https://perma.cc/KTZ4-MRHF>].

12. During the 2020 campaign cycle, then-candidates Joseph Biden and Kamala Harris signaled that environmental justice would be a priority. As a senator, Vice President Harris was an original co-sponsor of the Green New Deal, and as a candidate, she supported a ban on hydraulic fracturing. In 2021, EPA Administrator Michael Regan launched a “Journey to Justice” tour across the country to spotlight environmental justice concerns in places like Newark, Detroit, Los Angeles, and cities across the South, and developed agency-wide and regionally-specific actions in response to that tour. In May 2022, the Biden-Harris administration established a new Office of Environmental Justice within the Department of Health and

single, universal understanding. Is “environmental justice” a goal to achieve,¹³ or a set of values or principles to guide policymaking?¹⁴ Is it a political and social movement (or movements)?¹⁵ Does it contribute to a theoretical framework for understanding the new age of the

Human Services; the office will serve as the agency-wide hub for environmental justice policy, programming, and analysis. See “Biden-Harris Administration Establishes HHS Office of Environmental Justice,” *Biden-Harris Administration Establishes HHS Office of Environmental Justice*, U.S. DEP’T OF HEALTH AND HUM. SERV. (May 31, 2022), <https://www.hhs.gov/about/news/2022/05/31/biden-harris-administration-establishes-hhs-office-of-environmental-justice.html> [<https://perma.cc/T44A-JTY9>]; *Journey to Justice*, EPA (Feb. 10, 2022), [epa.gov/environmentaljustice/journey-justice](https://www.epa.gov/environmentaljustice/journey-justice) [<https://perma.cc/Y68H-VWDX>]; Lisa Friedman, *With the Biden-Harris Ticket, Environmental Justice Is a Focus*, N.Y. TIMES (Aug. 12, 2020), [nytimes.com/2020/08/12/climate/kamala-harris-environmental-justice.html](https://www.nytimes.com/2020/08/12/climate/kamala-harris-environmental-justice.html) [<https://perma.cc/25ZM-7EUV>].

13. “To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make *achieving environmental justice* part of its mission . . .” *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, Exec. Order No. 12898, 59 Fed. Reg. 7629 (February 16, 1994) (emphasis added).

14. At the First National People of Color Environmental Leadership Summit in October, 1991, delegates drafted and adopted “The Principles of Environmental Justice.” Delegates to the First Nat’l People of Color Env’t Leadership Summit, *The Principles of Environmental Justice*, ENV’T JUST. SERV. (Oct. 1991), [ejnet.org/ej/principles.pdf](https://www.ejnet.org/ej/principles.pdf) [<https://perma.cc/9JET-YWCH>]. Since then, The Principles have served as a defining and foundational document for various movements rooted in environmental justice. *Id.*

15. See Jedediah Purdy, *The Long Environmental Justice Movement*, 44 *ECOLOGY L.Q.* 809, 815, 819 (2018) (noting that “[t]he environmental justice movement (more accurately, movements) made incisive points about the limitations and blind spots of mainstream environmentalism, and describing environmental justice roots in the toxics movement and civil-rights style mobilization around ‘environmental racism.’”). With respect to labor and environmentalism, specifically, environmental justice principles emerged as factory work was increasingly recognized as dangerous around the turn of the century, and farmworkers organized to protect themselves and their families from harmful pesticides in the 1970s. See Clifford J. Villa, *Remaking Environmental Justice*, 66 *LOY. L. REV.* 469, 481 (2020). The blending of environmental issues and workers’ rights as focal points for advocacy groups continues today. For example, the Sunrise Movement is a relatively new collective of youth activists seeking to “stop climate change and create millions of good jobs in the process.” Sunrise members are focused on electing politicians who will champion the Green New Deal, advocating for a federal jobs guarantee, and supporting localized actions to abolish or reimagine institutions that degrade communities and the climate. *Current Campaigns*, SUNRISE MOVEMENT, <https://www.sunrisemovement.org/our-campaigns/> [<https://perma.cc/9TEA-S6D5>]; *Good Jobs for All*, SUNRISE MOVEMENT, <https://www.sunrisemovement.org/campaign/good-jobs-for-all/> [<https://perma.cc/HMNS-WRJ7>]; *Sunrise’s Principles*, SUNRISE MOVEMENT, [sunrisemovement.org/principles](https://www.sunrisemovement.org/principles) [<https://perma.cc/6ZBC-STN5>].

Anthropocene?¹⁶ Which places are part of the “environment,”¹⁷ and what does “justice” look like?¹⁸ Scholars have written comprehensive accounts of the origins of environmental justice, and have offered answers to some of the questions posed above.¹⁹ I do not attempt to recreate here the detailed descriptions offered in those pieces, but do think it important to offer some general history and to establish my view of what is meant by “environmental justice” as a foundation for this Article.

A. Environmental Law

The field most lawyers and scholars consider “environmental law” is relatively young.²⁰ Most of the statutes, regulations, and case law guiding

16. Building on the work of feminist legal theorist Martha Fineman’s vulnerability theory, Angela P. Harris offers a theory of “ecological vulnerability” that “helps us imagine the bearer of legal rights as a fully embodied subject whose body is inseparable from “the environment.” In defining this theory, Harris examines some existing models for ecological vulnerability, and describes how the environmental justice movement and its principles are consistent with ecological vulnerability. Angela P. Harris, *Vulnerability and Power in the Age of the Anthropocene*, 6 WASH. & LEE J. ENERGY, CLIMATE, & ENV’T 98, 108, 150–51 (2015).

17. Environmental justice advocates Luke Cole and Sheila Foster describe “environment” as “home and community,” frequently expressed as the places we live, work, learn, and play. See LUKE W. COLE & SHEILA R. FOSTER, FROM THE GROUND UP: ENVIRONMENTAL RACISM AND THE RISE OF THE ENVIRONMENTAL JUSTICE MOVEMENT 16 (2001). Other advocates generally take a similar approach, although sometimes, as in the case of Oregon’s Environmental Justice Task Force, they will expressly broaden the definition. STATE OF OR. ENV’T JUST. TASK FORCE, ENVIRONMENTAL JUSTICE: BEST PRACTICES FOR OREGON’S NATURAL RESOURCE AGENCIES, 12 (2016) (defining “environmental justice” as “equal protection from environmental and health hazards, and meaningful public participation in decisions that affect the environment in which people *live, work, learn, practice spirituality, and play.*”) (emphasis added).

18. Building on the work of Dr. Robert Bullard and others, Robert R. Kuehn sought to identify the “justice” embodied in the concept of “environmental justice.” His “A Taxonomy of Environmental Justice” proposed a four-part categorization of environmental justice issues based on (1) distributive, (2) procedural, (3) corrective, and (4) social justice. Robert R. Kuehn, *A Taxonomy of Environmental Justice*, 30 ENV’T L. REP. 10681, 10681-82 (2000) (describing the four-part categories under environmental issues). For a discussion of the level of influence Kuehn’s article continues to have on environmental justice scholarship, see Clifford J. Villa, *No “Box to be Checked”*: *Environmental Justice in Modern Legal Practice*, 30 N.Y.U. ENV’T. L. J. 157, 165 n.36 (2022) (describing the four-part categories under environmental issues).

19. Often called the “Father of Environmental Justice,” Dr. Robert Bullard has published numerous books and articles describing the origins of environmental justice movements, litigation, and activism, including in *Dumping in Dixie: Race, Class and Environmental Quality*, 3rd Ed., Boulder: Westview Press, 2000. See ROBERT D. BULLARD, *DUMPING IN DIXIE: RACE, CLASS, AND ENVIRONMENTAL QUALITY* 155, 159 (3rd ed. 2000). For a discussion of the political, economic, and social forces that shaped the environmental justice movements and principles, see Purdy, *supra* note 115, at 815.

20. Richard J. Lazarus, *The Greening of America and the Graying of United States Environmental Law*, 20 VA. ENV’T. L.J. 75, 76 (2001).

today's environmental lawyers are about fifty years old or newer. To be sure, the basic concept of environmental protection can be found in historical texts and traditions predating the very existence of the United States.²¹ In the early to mid-20th century, Congress enacted a series of laws embracing concepts of preservation and conservation. The Antiquities Act of 1906 gave the President the discretion to establish as national monuments "objects of historic or scientific interest that are situated on lands owned or controlled by the government of the United States."²² The Wilderness Act of 1964 was intended to preserve the undeveloped character of designated areas, and directed the Secretaries of Agriculture and Interior to review lands within their jurisdictions and make recommendations as to their suitability for wilderness classification.²³ Congress enacted the Wild and Scenic Rivers Act of 1968 to identify and protect certain rivers which possess "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values[,]" and established certain conservation measures for rivers designated as part of the "National Wild and Scenic Rivers System."²⁴ But aside from these conservation laws and some common law concepts, there was no comprehensive federal regime oriented around protecting the *quality* of the environment from human-related impacts through aggressive minimization or prevention of pollution.²⁵ Not until the 1970s did the United States create the Environmental Protection Agency, ushering in with it the first generation of modern environmental laws.²⁶

21. In a recent article, a Roman law scholar and natural resources law scholar partnered to discuss the growing number of academics and lawyers who advance a theory of the public trust doctrine styled as the "atmospheric trust," which would require governmental actors to mitigate climate change through a reduction in greenhouse gas emissions. While many proponents of the atmospheric trust theory have asserted that the modern public trust doctrine has origins in the Institutes of Justinian from A.D. 533, these two scholars argue that the American public trust doctrine has connections to branches of Roman law that predate Justinian's Institutes by many years. J.B. Ruhl & Thomas A.J. McGinn, *The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?*, 47 *ECOLOGY L.Q.* 117, 117-118 (2020).

22. American Antiquities Act of 1906, 54 U.S.C. § 320301; *see also* Utah Ass'n of Cnty. v. Bush, 316 F. Supp. 2d 1172, 11778 (D. Utah 2004) (discussing history and purpose of Antiquities Act).

23. The Wilderness Act, 16 U.S.C. §§ 113136; *see also* Utah Ass'n of Cnty., 316 F. Supp. 2d at 1180 (discussing history and purpose of Wilderness Act).

24. Wild and Scenic Rivers Act, 16 U.S.C. § 1271; *see also* Friends of Yosemite Valley v. Norton, 348 F.3d 789, 793-94 (9th Cir. 2003) (discussing history and purpose of Wild and Scenic Rivers Act).

25. Lazarus, *supra* note 20, at 76

26. *Id.* at 77-78.

By today's standards, those early pieces of legislation were adopted with widespread support.²⁷ In the first few years of the decade, Congress enacted the National Environmental Policy Act,²⁸ the Clean Air Act of 1970,²⁹ the Federal Water Pollution Control Act Amendments of 1972 (generally referred to as the Clean Water Act),³⁰ and the Endangered Species Act Amendments of 1973.³¹ A common thread woven through these laws is their effort to identify harmful or threatening activities and impose limitations or performance standards on those activities in an effort to protect or improve the environment.³² Professor Richard J. Lazarus describes these laws as “dramatic, sweeping, and apparently uncompromising.”³³ The level of ambition of these early laws is reflected in the target dates for establishment and compliance of certain performance standards. For example, the Clean Air Act directed the Administrator of the EPA—himself a new cabinet member in a newly-created agency—to develop and achieve compliance with national ambient air quality standards that would protect public health.³⁴ The Clean Water Act set out as its objective the restoration and maintenance of the “chemical, physical, and biological integrity of the Nation’s waters[,]” and declared a national goal “that the discharge of pollutants into the navigable waters be eliminated by 1985[.]”³⁵ In addition to this group of laws aimed at protecting air quality, water quality, and plant and animal species, environmental laws were passed addressing the life cycle of solid and hazardous waste (including after-the-fact liability and

27. RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 69 (2004).

28. National Environmental Policy Act of 1969 § 2, 42 U.S.C. § 4321.

29. Clean Air Act, Pub. L. 91-604, 84 Stat. 1676 (codified at scattered sections of 42 U.S.C.).

30. Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816.

31. Endangered Species Act of 1973, 93 Pub. L. 93-205, 87 Stat. 884.

32. See, e.g., Lauren Packard, *Michigan: An Intrusive Inquiry into the EPA’s Rulemaking Process*, 42 COLUM. J. OF ENV’T L. 117, 124 (2016) (describing the CAA and CWA as technology forcing statutes).

33. Lazarus, *supra* note 20, at 78.

34. 40 C.F.R. § 50.2(b) (1976) (explaining that “[n]ational primary ambient air quality standards define levels of air quality which the Administrator judges are necessary, with an adequate margin of safety, to protect the public health.”).

35. Clean Water Act § 101(a), 33 U.S.C. § 1251(a).

remediation),³⁶ chemical use,³⁷ resource extraction like mining and logging,³⁸ drinking water,³⁹ and more.⁴⁰

Besides their level of ambition, another common thread woven through nearly all of the major environmental statutes is the inclusion of a “citizen suit” provision.⁴¹ A cousin of *qui tam* actions,⁴² citizen suit provisions allow members of the public (generally “any citizen” or “any person”) to act as “private attorneys general” and enforce the statute against a private party or, in some cases, against the Administrator.⁴³ These provisions authorize a level of public participation in ensuring compliance with environmental laws not typically seen in other areas of law.⁴⁴ Whether the

36. Resource Conservation and Recovery Act, Pub. L. 94-580, 90 Stat. 2795 (codified in scattered sections of 42 U.S.C.); Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. 96-510, 94 Stat. 2767 (codified in scattered sections of 42 U.S.C.).

37. Federal Insecticide, Fungicide, and Rodenticide Act §§ 235, 7 U.S.C. §§ 136136y; Toxic Substances Control Act, Pub. L. 94-469, 90 Stat. 2003 (codified at scattered sections of 15 U.S.C.).

38. Surface Mining Control and Reclamation Act of 1977, Pub. L. 95-87, 91 Stat. 445 (codified at scattered sections of 30 U.S.C.); National Forest Management Act of 1976 §§ 2, 11, 17(b), 16 U.S.C. §§ 1600, 161114, 472a, 521b.

39. Safe Drinking Water Act §§ 14011465, 42 U.S.C. §§ 300fj.

40. See, e.g., Coastal Zone Management Act of 1972 §§ 30219, 16 U.S.C. §§ 145165; Oil Pollution Act of 1990, Pub. L. 101-380, 104 Stat. 484 (codified at scattered sections of 33 U.S.C., 43 U.S.C., & 46 U.S.C.); Federal Food, Drug, and Cosmetic Act, 52 Stat. 1040 (codified at scattered sections of 21 U.S.C.).

41. Jeffrey G. Miller, *Theme and Variations in Statutory Preclusions Against Successive Environmental Enforcement Actions by EPA and Citizens*, 28 HARV. ENV'T L. REV. 401, 413 n.50 (2004) (stating all of the major federal environmental statutes authorize citizens to act as private attorneys general—except FIFRA).

42. James R. May, *Now More Than Ever: Trends in Environmental Citizen Suits at 30*, 10 WIDENER L. SYMP. 1 (2003).

43. 33 U.S.C. § 1365(a) (providing a citizen suit provision to the Clean Water Act stating “[A]ny citizen may commence a civil action on his own behalf—(1) against any person...or (2) against the Administrator” where there is an alleged failure to perform a mandatory duty); 42 U.S.C. § 6972(a) (providing a citizen suit provision to the Resource Conservation and Recovery Act (RCRA) stating “any person may commence a civil action on his own behalf—(1)(A) against any person...alleged to be in violation of any permit, standard, regulation, condition, requirement, prohibition, or order [pursuant to RCRA]; or (B) against any person...who has contributed or who is contributing to the past or present handling, treatment, storage, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to human health or the environment; or (2) against the Administrator” where there is an alleged failure to perform a mandatory duty).

44. See May, *supra* note 42, at 6-8; see also 33 U.S.C. § 1365(b); 42 U.S.C. §§ 6972(b) (c) (providing provisions that limit citizen enforcement. Congress expressly included limitations on the ability of citizens to bring enforcement lawsuits in the form of advance notice requirements and preclusion where EPA or the relevant state agency has initiated and is “diligently prosecuting” an enforcement action. Additionally, in some cases courts have interpreted a citizen suit provision to authorize enforcement of a narrower category of alleged

inclusion of citizen suit provisions was borne of necessity due to limited resources and concerns about fluctuations of political will,⁴⁵ or driven by some larger recognition about the role and responsibility of humankind *vis-a-vis* the natural environment,⁴⁶ courts have recognized that “Congress made clear that citizen groups are not to be treated as nuisances or troublemakers but rather as welcomed participants in the vindication of environmental interests.”⁴⁷

One might think that the inclusion of citizen suit provisions in our bedrock environmental laws serves to underscore the human role within the environment; that it perhaps reflects some long-standing, shared understanding that the “environment” centers humans and the human habitat. Not so. As environmental justice advocates and scholars explain, “mainstream environmentalism” or “traditional environmentalism” instead generally assumed a definition of the “environment” that was fairly narrow in scope: the environment included so-called “natural” phenomena like waterways, forests, and nonhuman species.⁴⁸ Even where the laws were explicit that human activity might be the source of environmental degradation, there was an inherent wildness or unspoiled characteristic to the “woods-and-waters” locales that were the subject of the conservation and anti-pollution laws; these spaces were assumed, by most policymakers and large environmental groups, to be “the environment.”⁴⁹ Thus, although citizens had opportunities to directly enforce environmental laws, those actions were often premised on an assumption that “the environment” was limited to spaces that were not inherently human-centered.

B. Environmental Justice

By contrast, the environmental justice approach to defining “the environment” is “distinctly social and institutional.”⁵⁰ According to Luke Cole and Sheila Foster, the environment is “where we live, where we work,

violations of the law than what the government might have authority to pursue); *Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Found., Inc.*, 484 U.S. 49 (1987), *superseded by statute*, Clean Air Act, 42 U.S.C. § 7604(a)(3) (holding that citizen suit provision conferred jurisdiction over good-faith allegations of continuous or intermittent violations of the Clean Water Act, but not over “wholly past” violations. Even with these limitations, citizens initiate hundreds of suits each year, and are often successful in bringing about compliance.).

45. May, *supra* note 42, at 1.

46. *Id.* at 6-7

47. *Friends of Earth v. Carey*, 535 F.2d 165, 172 (2d Cir. 1976).

48. Purdy, *supra* note 115, at 818

49. *Id.* at 81415.

50. *Id.* at 818.

where we play, and where we learn.”⁵¹ Dr. Robert Bullard, often called the “Father of Environmental Justice,” remarked in an interview that “the environment is everything: where we live, work, play, go to school, as well as the physical and natural world. And so we can’t separate the physical environment from the cultural environment.”⁵² Oregon’s Environmental Justice Task Force has broadened the definition to include places we “practice spirituality.”⁵³

This broader, human-centric definition is evident in the early events and milestones marking the emergence and development of the environmental justice movement. In 1968, sanitation workers in Memphis went on strike to advocate for fair pay and better working conditions, drawing the attention of Rev. Dr. Martin Luther King, Jr. In 1979, Dr. Bullard and his wife, attorney Linda McKeever Bullard, brought a case alleging that the siting of a landfill in the predominantly Black, Houston-area neighborhood of Northwood Manor was discriminatory.⁵⁴ Hundreds of environmentalists and civil rights activists were arrested following the 1982 sit-in protest against a polychlorinated biphenyl landfill in Warren County, North Carolina.⁵⁵ In 1987, the United Church of Christ Commission for Racial Justice released a report on “Toxic Waste in the United States,” the first study of its kind to address issues of race, class, and the environment on a national level.⁵⁶ The study found that millions of people of color were living in communities with at least one abandoned or uncontrolled toxic waste site, and noted that although socioeconomic status played an important role in the location of these sites, the residents’ race was the most significant indicator among analyzed variables.⁵⁷

By the 1990s, the grassroots activism of impacted communities and civil rights leaders led to the recognition and incorporation of environmental justice principles and themes by governmental institutions and actors. In 1990, Dr. Bunyan Bryant and Dr. Paul Mohai organized the “Conference on Race and the Incidence of Environmental Hazards” at the University of Michigan, which resulted in recurring meetings between the group of scholars

51. *Id.*

52. Errol Schweizer, *Environmental Justice: An Interview with Robert Bullard*, *EARTH FIRST! J.* (July 1999), <https://www.ejnet.org/ej/bullard.html> [<https://perma.cc/QX9Y-ZTRU>].

53. STATE OF OR. ENV’T JUST. TASK FORCE, *supra* note 117, at 2.

54. *A Pioneer in Environmental Justice Lawyering: A Conversation with Linda McKeever Bullard*, 5 *RACE, POVERTY & THE ENV’T* 17, 17 (1994).

55. Purdy, *supra* note 115, at 820.

56. *Preface to UNITED CHURCH OF CHRIST COMM’N FOR RACIAL JUST., TOXIC WASTES AND RACE IN THE UNITED STATES ix* (1987).

57. *Id.* at xiiiiv.

and activists and EPA.⁵⁸ EPA Administrator William Reilly created the Environmental Equity Workgroup, and in 1992 filed a report called “Reducing Risk for All Communities.”⁵⁹ Two years later, President Clinton signed Executive Order 12898, which established an interagency working group on environmental justice, and directed federal agencies to develop strategies for identifying and addressing the “disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”⁶⁰

EPA’s focus on environmental justice continued into the new millennium, and included an emphasis on partnering with state and local governments and organizations to support community-driven problem solving. In 2009, EPA selected ten “Environmental Justice Showcase Communities,” one in each of EPA’s ten regions, to receive funding and project support aimed at alleviating environmental and human health challenges in those communities. In Region 10, which includes the Pacific Northwest, EPA’s selected Showcase Community was the Yakima Valley, in Washington.⁶¹ Sometimes described as “the nation’s fruit basket,” the Yakima Valley was first farmed by the Yakama Nation and continues to be leading producer of apples, cherries, and hops.⁶² Many Yakima residents work in agriculture, and many are immigrants or children of migrant farmworkers; the number of Latino residents has doubled in one generation.⁶³ In 2012, two Yakima residents challenged the City of Yakima’s voting system, alleging that the City’s districting unlawfully diluted the Latino vote in violation of Section 2 of the Voting Rights Act.⁶⁴ The court agreed with plaintiffs, and ordered the parties to jointly submit a redistricting plan.⁶⁵

58. Purdy, *supra* note 115, at 821.

59. EPA, ENVIRONMENTAL EQUITY WORKGROUP: REDUCING RISK FOR ALL COMMUNITIES (1st vol. 1992) (finding disproportionate exposure to pollution among communities of color but raised some questions about the sources of exposure and links to health problems. It concluded that although there are clear disparities among ethnic groups for life expectancy and disease and death rates, there is a lack of data on human exposures to environmental pollutions (the notable exception being lead exposure in children, where Black children have disproportionately higher blood lead levels than white children even when income levels are considered)).

60. *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, Exec. Order No. 12,898, 59 Fed. Reg. 7,629 (Feb. 16, 1994).

61. *Environmental Justice Showcase Communities by Region*, EPA (June 28, 2022), <https://www.epa.gov/environmentaljustice/environmental-justice-showcase-communities-region#overview-r10> [<https://perma.cc/3VHC-TRTQ>].

62. Dionne Searcey & Robert Gebeloff, *The Divide in Yakima is the Divide in America*, N.Y. TIMES (Nov. 19, 2019), <https://www.nytimes.com/2019/11/19/us/politics/yakima-washington-racial-differences-2020-elections.html> [<https://perma.cc/38SL-MM4Z>].

63. *Id.*

64. *Montes v. Yakima*, 40 F. Supp. 3d 1377, 1414 (E.D. Wash. 2014).

65. *Id.* at 1415.

Award-winning local journalism in the late 2000s focused on the persistent problem of nitrate contamination in Yakima Valley groundwater.⁶⁶ Around the same time, large dairy concentrated animal feeding operations, or CAFOs, in the lower Yakima Valley were being held accountable in federal court for violating the Clean Water Act.⁶⁷ EPA's additional funding provided for the testing of 600 private wells for nitrate contamination and the collection of samples from crop fields, dairies, and sewage treatment units used to identify sources of nitrate contamination.⁶⁸ These data, in turn, served as important evidence in a suite of Resource Conservation and Recovery Act (RCRA) citizen suits brought by a local community group and a national food safety group against several large dairy CAFOs.⁶⁹ In an order on cross-motions for summary judgment, Judge Rice of the Eastern District of Washington found no genuine issue of material fact that the defendant dairy's application, storage, and management of manure violated RCRA's imminent and substantial endangerment provision and prohibition of open dumping.⁷⁰ Part of the settlement of those RCRA cases created a clean drinking water program to ensure that residents whose private wells were contaminated could access safe water. Monitoring and oversight of the remediation continues.

EPA's efforts to promote environmental justice and support locally-driven activism continue. One noteworthy environmental justice effort has centered around the use of technology to collect and organize data, exemplified by the development and launch of EJScreen. Development of EJScreen began in late 2010, and was fully released to the public in 2015.⁷¹ The goal in developing EJScreen was to provide a consistent, user-friendly tool to aid in understanding environmental and demographic characteristics

66. Leah Beth Ward, *Hidden Wells, Dirty Water: The Backstory of an Environmental Health Reporting Project*, *CTR. FOR HEALTH JOURNALISM* (Nov. 12, 2012), <https://centerforhealth-journalism.org/2012/11/12/hidden-wells-dirty-water-backstory-environmental-health-reporting-project> [<https://perma.cc/MNW9-TRBC>].

67. *See, e.g.*, *Cnty. Ass'n for Restoration of the Env't, Inc. v. Henry Bosma Dairy*, 65 F. Supp. 2d 1129, 1156 (E.D. Wash. 1999) (holding that defendant dairy CAFO was strictly liable for 15 violations of the Clean Water Act).

68. *Environmental Justice Showcase Communities by Region*, *supra* note 61.

69. *See, e.g.*, *Cnty. Ass'n for Restoration of the Env't, Inc. v. Cow Palace, LLC*, 80 F. Supp. 3d 1180 (E.D. Wash. 2015); *Cnty. Ass'n for Restoration of the Env't, Inc. v. Henry Bosma Dairy*, 65 F. Supp. 2d 1129 (E.D. Wash. 1999); *Cnty. Ass'n for Restoration of the Env't, Inc. v. Deruyter Bros. Dairy*, 54 F. Supp. 2d 974 (E.D. Wash. 1999).

70. *Cow Palace, LLC*, 80 F. Supp. 3d at 1230.

71. *How was EJScreen Developed?*, EPA (Feb. 18, 2022), <https://www.epa.gov/ejscreen/how-was-ejscreen-developed> [<https://perma.cc/Y2ZR-8WG9>].

of locations throughout the United States.⁷² In 2022, a similar tool known as the “Climate and Economic Justice Screening Tool” was released in support of the Biden Administration’s Justice40 Initiative.⁷³

C. Labor and Environmental Justice Today

Today, the partnership between environmental justice activists and workers’ rights activists can be seen clearly in the organizing and activism of folks calling for a Just Transition. According to the Just Transition Alliance, “Just Transition” is a “principle, a process and a practice” that will “transition communities and workers from unsafe workplaces and environments to healthy, viable communities with a sustainable economy.”⁷⁴ In making the case for a just transition, advocates argue in favor of “holistic approaches to climate policy, such as the Green New Deal,” and assert that “social and economic inequality are inextricably intertwined with carbon reduction.”⁷⁵ These advocates reject the concerns expressed by some that focusing on economic and social inequality detracts from the need to drastically reduce GHG emissions.⁷⁶ Instead, advocates say, “a healthy economy and a clean environment can and should co-exist,” and can be achieved through a process that is fair and does not cost workers or communities their health, environment, jobs, or economic assets.⁷⁷

In the food system context, activism is also growing around a just transition for farmworkers. Workers see firsthand the impacts that climate change and environmental disasters have on them, their colleagues, and their communities. In an interview with High Country News, Edgar Franks, policy director for the independent union Familias Unidas por la Justicia, recalled the summer of 2017 as being especially bad.⁷⁸ He described how there was wildfire smoke everywhere, and that even after people were warned to stay indoors and take precautions, farmworkers were still out in

72. *Id.*

73. *Climate and Economic Justice Screening Tool*, COUNCIL ON ENV’T QUALITY, <https://screeningtool.geoplatform.gov/en/about#3/33.47/-97.5> [<https://perma.cc/GBY7-GCVK>].

74. *What is Just Transition?*, JUST TRANSITION ALL. (2022), <https://jtalliance.org/what-is-just-transition/> [<https://perma.cc/35G3-AF7Z>].

75. J. Mijin Cha et al., *Environmental Justice, Just Transition, and a Low-Carbon Future for California*, 50 ENV’T L. REP. 10216, 10217 (2020).

76. *Id.*

77. JUST TRANSITION ALL., *supra* note 74.

78. Sarah Sax, *A Just Transition for Farmworkers*, HIGH COUNTRY NEWS (Feb. 1, 2022), <https://www.hcn.org/issues/54.2/north-labor-a-just-transition-for-farmworkers#:~:text=Agriculture%2C%20Franks%20said%2C%20as%20a,climate%20emissions%2C%20in%20November%202021> [<https://perma.cc/SQ95-HA5K>].

the heat working.⁷⁹ Franks knows that his union's work is important for addressing the impacts of climate change on individual farmworkers, but also sees it as part of a larger struggle: agriculture, as a primary driver of climate change, needs its own just transition, guided by farmworkers.⁸⁰

Franks attended the United Nations Conference of the Parties, or COP26, where he observed that a just transition was barely mentioned during negotiations. When he returned, he was motivated to speak with other farmworkers and his union members about a new economy, one that would account for the true cost of food production by considering those costs on workers and the environment.⁸¹ The realization of this vision—one of a diverse regional economy of small farmers and cooperatives—can be seen in a new cooperative started by Franks' friend and union colleague, Ramón Torres. Torres co-founded a 65-acre farmworker-owned cooperative called Tierra y Libertad, which seeks to treat workers fairly and uses organic farming methods.⁸²

Franks' vision, like that of the Just Transition Alliance and others who support a Green New Deal, is not so different from what the activists of the early days of the environmental justice movement sought. The Principles of Environmental Justice, drafted and adopted in 1991, include the following:

Environmental Justice mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things . . . [and] affirms the right of all workers to a safe and healthy work environment without being forced to choose between an unsafe livelihood and unemployment.⁸³

For farmworkers and other food system workers, the reality of a just transition may feel distant. The original Green New Deal resolution, introduced in 2019, sketched broad goals, but was (perhaps intentionally) thin on the specific mechanisms that would achieve those goals.⁸⁴ Sponsors of the Green New Deal reintroduced the bill in 2021.⁸⁵ The current political climate is such that passage of the Green New Deal in its current form is unlikely.⁸⁶ But certain policy proposals that would fall under the umbrella of

79. *Id.*

80. *Id.*

81. *Id.*

82. *Id.*

83. Delegates to the First Nat'l People of Color Env't Leadership Summit, *supra* note 114.

84. H.R. Res. 109, 116th Cong. (2019).

85. S. Res. 166, 117th Cong. (2021).

86. Zoya Teirstein & Shannon Osaka, *Democrats Flipped the Senate. So Why is a Green New Deal Still Unlikely?*, GRIST (Jan. 15, 2021), <https://grist.org/politics/democrats-flipped->

the Green New Deal poll well with voters: in a 2020 survey of nearly 1000 registered voters, 85% support re-establishing the Civilian Conservation Corps, 83% support jobs programs to hire unemployed coal and oil and gas workers to close down those facilities, and 68% support “increasing federal funding to low-income communities and communities of color who are disproportionately harmed by air and water pollution.”⁸⁷

And yet, even though congressional action may seem to be moving at a glacial pace, the urgency of the climate crisis is something food system workers—particularly those in the West—are experiencing now. Summers are hotter, and wildfire season is longer. For them, the solutions can’t wait.

II. Extreme Heat in the Pacific Northwest

The Pacific Northwest has long been known for the lush, green, old-growth forests west of the Cascade Mountain range, and gently rolling hills giving way to agricultural fields on the eastern side of the region. Mention “Washington” or “Oregon” and images of coffee shops filled with software developers, independent musicians, eccentric hipsters, outdoor recreation enthusiasts, and fans of long-suffering sports franchises come to mind.⁸⁸ For most residents, concerns about potential environmental disaster centered around a couple acute events. First, the ever-present fears of a catastrophe at the Hanford nuclear storage facility in central Washington, while generally accepted as fairly low-risk, resurfaced when the Department of Energy announced in 2021 that tank B-109 joined tank T-111 as actively leaking “toxic, radioactive nuclear waste” into soil, with the potential to eventually reach groundwater.⁸⁹ Second, and arguably the cause of more heightened, widespread anxiety, the likely devastation when—not if—the Cascadia Subduction Zone finally gives way and the region experiences a long overdue

the-senate-so-why-is-a-green-new-deal-still-unlikely/ [https://perma.cc/Q8Q9-7V5T]. The lack of formal passage of the Green New Deal resolution, as introduced, does not mean that policy ideas that align with the Green New Deal will not be embraced. Some elements of the Green New Deal have already been incorporated in President Biden’s proposed climate plans, although the scale and boldness differ. And some of the Green New Deal’s goals continue to poll very well with voters. YALE UNIV. & GEORGE MASON UNIV., POLITICS & GLOBAL WARMING 5 (2020).

87. YALE UNIV. & GEORGE MASON UNIV., *supra* note 86, at 5.

88. See Claire Cain Miller, *Will Portland Always be a Retirement Community for the Young?*, N.Y. TIMES MAG. (Sept. 16, 2014), <https://www.nytimes.com/2014/09/21/magazine/will-portland-always-be-a-retirement-community-for-the-young.html> [https://perma.cc/5QB7-CPU2].

89. *Leaking B-109 and T-111 Hanford Tanks*, WASH. STATE DEP’T OF ECOLOGY, <https://ecology.wa.gov/Waste-Toxics/Nuclear-waste/Hanford-cleanup/Leaking-Hanford-tanks> [https://perma.cc/2V7L-SR9S].

major earthquake.⁹⁰ Less likely to engender comparisons to post-apocalyptic, dystopian works of fiction, but certainly no less dangerous, is the ever-lengthening wildfire season in the American West, bringing intense blazes that tear through large swaths of central and southern Oregon forests⁹¹ and air filled with lung-clogging particulate matter.⁹²

In the summer of 2021, a different environmental danger ravaged the typically temperate Pacific Northwest: extreme heat. In Seattle, Washington, temperature records were broken for three consecutive days in late June, reaching 102, 104, and 108 degrees Fahrenheit; that three-day stretch was the first of its kind in the city, and the 108-degree mark is the city's highest temperature since detailed record-keeping began in 1870.⁹³ Road crews sprayed water on some of Seattle's many old bridges in an effort to keep the steel from expanding.⁹⁴ And in a city where just 44 percent of the residents reported having some sort of air conditioning in 2019, Seattleites seeking refuge in libraries or cooling centers soon found disappointment, as many of those facilities lack air conditioning, too.⁹⁵

About 180 miles to the south of Seattle, the residents of Portland, Oregon fared no better. Portland, which typically averages about one 100-degree day per year, experienced five such days in 2021.⁹⁶ During the first heatwave, in late June, Portland's local transit agency, TriMet, suspended

90. See Kathryn Schultz, *The Really Big One*, THE NEW YORKER (July 13, 2015), <https://www.newyorker.com/magazine/2015/07/20/the-really-big-one> [<https://perma.cc/YW5S-ESG3>].

91. Julie Sabatier, *What is the 'New Normal' When it Comes to Wildfire Season?*, OR. PUB. BROAD. (Sept. 27, 2021, 5:56 PM), <https://www.opb.org/article/2021/09/24/what-is-the-new-normal-when-it-comes-to-wildfire-season/> [<https://perma.cc/AX5D-YXD5>].

92. See Rosana Aguilera et al., *Wildfire Smoke Impacts Respiratory Health More than Fine Particles from Other Sources: Observational Evidence from Southern California*, 12 NATURE COMM'NS 1493 (Mar. 5, 2021), <https://www.nature.com/articles/s41467-021-21708-0> [<https://perma.cc/8UWP-VD99>].

93. *Hottest Day Ever in Seattle (June 28, 2021)*, UNIV. OF WASH. EMERGENCY MGMT. (July 13, 2021), <https://www.washington.edu/uwem/2021/07/13/hottest-day-ever-in-seattle-june-28-2021/> [<https://perma.cc/R8VD-DHAH>].

94. Mike Baker & Sergio Olmos, *The Pacific Northwest, Built for Mild Summers, Is Scorching Yet Again*, N.Y. TIMES (Aug. 13, 2021), <https://www.nytimes.com/2021/08/13/us/excessive-heat-warning-seattle-portland.html> [<https://perma.cc/MJN7-TP9U>].

95. *Id.* Importantly, while air conditioning might provide some short-term relief for people seeking cooler temperatures, it exacerbates climate change and is therefore not a long-term solution. Air conditioning technology relies on hydrofluorocarbons (HFCs), which are harmful greenhouse gases that deplete the ozone layer, and add demand to the power grid. See Eric Dean Wilson, *AC Feels Great, But It's Terrible for the Planet. Here's How to Fix That*, TIME (June 30, 2021, 4:07 PM), <https://time.com/6077220/air-conditioning-bad-for-planet-how-to-fix/> [<https://perma.cc/RJ2D-55P9>].

96. Baker & Olmos, *supra* note 94.

the city's light rail and streetcar service due to the operational limitations of the overhead copper wires and overall concerns about the integrity of the infrastructure under such high temperatures.⁹⁷ Ahead of the second extreme heatwave, in mid-August, Portland Mayor Ted Wheeler and Oregon Governor Kate Brown declared states of emergency over their respective jurisdictions, anticipating statewide temperatures that would meet or exceed the new high temperatures recorded just a few weeks prior.⁹⁸ On June 29, 2021, a recorded temperature in Central Oregon tied a longstanding record for hottest temperature ever recorded in the state.⁹⁹

Oregon's extreme heat events impacted cities outside of the Portland metro area, too. The capital city of Salem reached 117 degrees Fahrenheit on June 28, 2021, and averaged its third-hottest year ever.¹⁰⁰ On June 29, 2021, the eastern Oregon cities of Hermiston and Pendleton (of rodeo and woolen goods fame) both recorded all-time modern highs of 118 and 117, respectively.¹⁰¹ Eugene, home to the state's flagship university and widely-recognized as "Tracktown, USA," suspended the U.S. Olympic Track and Field trials at Hayward Field as temperatures broke three-digits on June 27, 2021.¹⁰²

The cities of Eugene and Salem are in the heart of the Willamette Valley, a verdant, agricultural region stretching roughly 120 miles long and consisting of approximately 9 million acres in the northwestern portion of the

97. Matthew Singer, *TriMet is Temporarily Suspending All MAX Service Due to Extreme Heat*, WILLAMETTE WK. (June 27, 2021), <https://www.wweek.com/news/city/2021/06/27/trimet-is-temporarily-suspending-all-max-service-due-to-extreme-heat/> [https://perma.cc/69SS-6EQL].

98. Hallie Golden, *Oregon Declares State of Emergency as Another 'Extreme Heatwave' Looms*, THE GUARDIAN (Aug. 11, 2021, 11:58 PM), <https://www.theguardian.com/us-news/2021/aug/11/oregon-heatwave-pacific-northwest-state-emergency> [https://perma.cc/W6QQ-UQ84].

99. Alex Hasenstab, *Oregon's 2021 Heat Dome Notches Another Record*, OR. PUB. BROAD. (Feb. 10, 2022, 7:01 PM), <https://www.opb.org/article/2022/02/10/oregons-2021-heat-dome-notches-another-record/> [https://perma.cc/N2LV-JCTU].

100. Zach Urness, *'It's Happening Faster than We Thought': 2021 was Oregon's Fifth-Warmest Year Since 1895*, SALEM STATESMAN J. (Jan. 13, 2022), <https://www.statesmanjournal.com/story/news/2022/01/13/2021-oregons-fifth-hottest-year-since-1895-continuing-warm-trend/9164721002/> [https://perma.cc/46R4-DXKR].

101. Antonio Sierra, *Heat Wave Breaks Records*, E. OREGONIAN (Jul. 1, 2021), https://www.eastoregonian.com/news/local/heat-wave-breaks-records/article_42370e3cd9ca-11eb-a7e7-7b05b118dee2.html [https://perma.cc/J4WS-GTL3].

102. Joel Odom, *U.S. Olympic Track and Field Trials Suspended Until Sunday Night Because of Extreme Heat at Hayward Field in Eugene*, THE OREGONIAN/OREGONLIVE (Jun. 27, 2021, 3:35 PM), <https://www.oregonlive.com/trackandfield/2021/06/us-olympic-track-and-field-trials-suspended-until-sunday-night-because-of-extreme-heat-at-hayward-field-in-eugene.html> [https://perma.cc/SHN4-F6FP].

state.¹⁰³ A key economic driver in the state, the 2017 market value of agricultural products sold from the Willamette Valley totaled \$2.3B.¹⁰⁴ The region consistently leads in the nation in production of hazelnuts, cranberries, Christmas trees, and grass seed.¹⁰⁵ Wine enthusiasts travel to the Willamette Valley, home to two-thirds of the state's wineries and vineyards, to enjoy its celebrated Pinot noir.¹⁰⁶ In recent years, Portland, along with mid-sized cities in Central Oregon and the Willamette Valley have been touted as charming and desirable alternatives to live in compared to some of the larger cities in the Salish Sea/Puget Sound area to the north and Bay Area to the south; continued population growth and increases in home prices seem to reflect that sentiment.¹⁰⁷

For those who were at work outdoors in the Willamette Valley during the summer of 2021, the extreme heatwave took a heavier, sometimes tragic toll. Perhaps the most widely-reported example is that of Sebastian Perez, a 38-year-old employee at Ernst Nursery & Farms in St. Paul, a small town near Salem.¹⁰⁸ Originally from Guatemala, Mr. Perez traveled to Oregon earlier in 2021 to earn money to build a house in his home country.¹⁰⁹ He was at work moving irrigation pipe on Saturday, June 26.¹¹⁰ As the temperature climbed, Mr. Perez kept working.¹¹¹ When it hit 106-degrees Fahrenheit, around 3 p.m., other workers quit and figured Mr. Perez would quit soon, too.¹¹² Eventually, after Mr. Perez didn't answer his cell phone, his coworkers went searching for him, and found him collapsed in the field.¹¹³

103. OR. STATE BD. OF AGRIC., 2021 REPORT 3 (2021); *Willamette Valley*, THE OR. CONSERVATION STRATEGY, <https://oregonconservationstrategy.org/ecoregion/willamette-valley/> [<https://perma.cc/8RRN-QKZ3>].

104. OR. STATE BD. OF AGRIC., *supra* note 103, at 3.

105. Nathan Kirkpatrick, *Growing Pains to Gains in Willamette Valley*, OR. ST. UNIV. (Spring 2014), <https://smallfarms.oregonstate.edu/growing-pains-gains-willamette-valley> [<https://perma.cc/X2CQ-S99L>].

106. *Oregon Pinot Noir*, WILLAMETTE VALLEY WINERIES ASS'N, <https://www.willamettewines.com/about-the-valley/oregon-pinot-noir/> [<https://perma.cc/F6R2-CMBJ>].

107. Jamie Goldberg, *New Census Data Show Where Oregon's Population Grew Fastest in the 2010s*, THE OREGONIAN/OREGONLIVE (Aug. 12, 2021, 11:11 AM), <https://www.oregonlive.com/business/2021/08/new-census-data-show-where-oregons-population-grew-fastest-in-the-2010s.html> [<https://perma.cc/J56V-GVAZ>].

108. Jeff Goodell, *Sebastian Perez Did Not Have to Die*, ROLLING STONE (Aug. 17, 2021, 10:52 AM), <https://www.rollingstone.com/politics/politics-features/heat-wave-2021-oregon-deaths-sebastian-perez-1211258/> [<https://perma.cc/67MK-52J3>].

109. *Id.*

110. *Id.*

111. *Id.*

112. *Id.*

113. *Id.*

By the time an emergency medical crew arrived, Mr. Perez had died.¹¹⁴ In the days that followed, Oregon's Occupational Safety and Health Administration launched a formal investigation into Mr. Perez's death, and confirmed what everyone already knew.¹¹⁵ An autopsy found that Mr. Perez died from cardiovascular and respiratory failure caused by heat exhaustion and dehydration.¹¹⁶

Mr. Perez's death is not the only one that can be attributed to the Pacific Northwest's extreme heat.¹¹⁷ A New York Times review of mortality data reported to the Centers for Disease Control and Prevention concluded that about 600 more people in the Pacific Northwest died than would have been typical during the week of the heat crisis.¹¹⁸ At the time that analysis was published, Washington and Oregon had officially reported 95 and 96 heat-related deaths from the same week, respectively.¹¹⁹ The disparity between these official state reports and the excess death figures estimated by the New York Times are consistent with a larger national study finding that the annual number of deaths attributable to heat is substantially larger than previously reported.¹²⁰

In Multnomah County, Oregon, which encompasses most of the city of Portland, more people died in three extreme-heat days than died during nine days at the height of the COVID-19 pandemic.¹²¹ The death toll from that late June heatwave—71 people as of mid-July, 2021—was higher than the number of people killed by many other regional natural disasters, including the 1980 eruption of Mount St. Helens.¹²²

While death is the most severe and heartbreaking effect that extreme heat can have on a person, a plethora of other consequences exist as well.

114. *Id.*

115. *Id.*

116. Jamie Goldberg, *Two Oregon Businesses Whose Workers Died During Heat Wave Fight State Fines*, THE OREGONIAN/OREGONLIVE (May 6, 2022, 11:32 AM), <https://www.oregonlive.com/business/2022/05/two-oregon-businesses-whose-workers-died-during-heat-wave-fight-state-fines.html> [https://perma.cc/V8YJ-5RK5].

117. See Nadja Popovich & Winston Choi-Schagrin, *Hidden Toll of the Northwest Heat Wave: Hundreds of Extra Deaths*, N.Y. TIMES (Aug. 11, 2021), <https://www.nytimes.com/interactive/2021/08/11/climate/deaths-pacific-northwest-heat-wave.html> [https://perma.cc/43L9-CYCX].

118. *Id.*

119. *Id.*

120. Kate R. Weinberger et al., *Estimating the Number of Excess Deaths Attributable to Heat in 297 United States Counties*, 4 ENV'T EPIDEMIOLOGY 3 (2020).

121. Sophie Peel, *This is the Hottest Place in Portland*, WILLAMETTE WEEK (Jul. 14, 2021, 5:30 AM), <https://www.wweek.com/news/city/2021/07/14/this-is-the-hottest-place-in-portland/> [https://perma.cc/E72Q-QBU2].

122. *Id.*

Various illnesses and conditions, including heat cramps, heat exhaustion, heatstroke, and hyperthermia can result when the body loses the ability to regulate internal temperature.¹²³ Heat extremes can also worsen chronic conditions like cardiovascular, respiratory, and cerebrovascular diseases, and diabetes-related conditions.¹²⁴ Severe heat can disrupt sleep, impair cognitive performance, and is associated with increased risk of suicide or hospital admission for mental health needs.¹²⁵

Hot weather and heat extremes are also associated with increased emergency room visits and hospital admittance and healthcare costs.¹²⁶ A study tracking the number of heat-related visits to emergency medical facilities in the Pacific Northwest found that 1,038 such visits occurred on June 28, 2021.¹²⁷ On the same date two years earlier, the number of heat-related visits to emergency departments was nine.¹²⁸ Further, extreme heat negatively affects occupational health and productivity, and increased sports illnesses and injuries.¹²⁹

Certain populations are more vulnerable to the effects of extreme heat. In general, people who are older, who are unhoused, and who work outdoors are all at greater risk.¹³⁰ People who are incarcerated and people

123. See Kristie L. Ebi et al., *Hot Weather and Heat Extremes: Health Risks*, 398 THE LANCET 69899 (2021), [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01208-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01208-3/fulltext) [<https://perma.cc/6MHX-S3E3>].

124. *Id.* at 701.

125. Radhika Khosia et al., *Health Risks of Extreme Heat: Risks are High, and Rising in Line with Global Temperatures*, THE BMJ (Oct. 7, 2021), <https://www.bmj.com/content/bmj/375/bmj.n2438.full.pdf> [<https://perma.cc/3BGZ-R84L>].

126. Ebi et al., *supra* note 123, at 698.

127. Paul J. Schramm et al., *Heat-Related Emergency Department Visits During the Northwestern Heat Wave — United States, June 2021*, 70 CDC: MORBIDITY AND MORTALITY WKLY. REP. 1020, 1020 (2021), https://www.cdc.gov/mmwr/volumes/70/wr/mm7029e1.htm?s_cid=mm7029e1 [<https://perma.cc/V2ZD-BPSY>].

128. *Id.*

129. Ebi et al., *supra* note 123, at 698.

130. See Jackson Voelkel et al., *Assessing Vulnerability to Urban Heat: A Study of Disproportionate Heat Exposure and Access to Refuge by Socio-Demographic Status in Portland, Oregon*, 50 INT'L J. ENV'T RSCH. PUB. HEALTH 640 (2018) (finding other factors compound the risk and impact of extreme heat events on certain groups. In a 2018 study, Portland climate researcher Dr. Vivek Shandas and colleagues evaluated Portland-area neighborhoods and identified certain neighborhoods in east Portland at the greatest risk from extreme heat. Shandas and his colleagues concluded that three factors contribute to the increased risk in these neighborhoods. First, these neighborhoods tend to be built with dark, heat-absorbing materials. Largely built up during the post-World War II era, these neighborhoods were more automobile-oriented than other parts of the city. Second, these "heat islands" are built in a way that eliminates or restricts breeze, making it more difficult for cooling air circulation to occur. Third, there is a disparity in distribution of tree canopy in Portland. West of the Willamette River, nearly half of the city (46 percent) has tree canopy. East of the river, that number drops to roughly 20 percent).

who work in certain types of indoor facilities (like poorly-ventilated warehouses) are at greater risk as well.¹³¹ And, consistent with other environmental justice issues, communities that have historically borne a disproportionate share of environmental burdens and received few environmental benefits—like access to trees and green spaces—are impacted more severely by extreme heat; lower-income neighborhoods and communities of color experienced some of the hottest on-the-ground temperatures in Portland during the Pacific Northwest’s heatwaves.¹³² Professor Vivek Shandas, climate researcher at Portland State University, sought to record the temperatures of different neighborhoods around Portland during the heat events.¹³³ For purposes of this article, I have focused on statutory and regulatory vulnerabilities of workers in the food system. This does not mean that other groups are not also vulnerable, or that the problems here are necessarily unique to workers in this sector.

While historic patterns of racial and economic discrimination have contributed to existing environmental justice issues, climate change threatens to worsen them. An international team of scientists who studied the late-June heat wave in the Pacific Northwest concluded that it almost certainly would not have occurred without global warming.¹³⁴ Using a rapid-analysis technique, the team of climate researchers estimated that in any given year, there was only a 0.1 percent chance of such an intense heat wave occurring.¹³⁵ Without drastic cuts to greenhouse gas emissions to stave off global temperature increase of 1.5 degrees Fahrenheit, the chance of an intense heat wave occurring somewhere in the world would increase as much as 20 percent in a given year.¹³⁶ On its own, the increase in occurrences of extreme heat events is cause for substantial concern. When paired with the

131. Jacob Elkin, *Extreme Heat Protections Should Include Incarcerated Workers*, CLIMATE L. BLOG SABIN CTR. FOR CLIMATE CHANGE L. (Sept. 24, 2021), <https://blogs.law.columbia.edu/climatechange/2021/09/24/extreme-heat-protections-should-include-incarcerated-workers/> [https://perma.cc/5EQW-UNUE].

132. See Monica Samayoa, *As Extreme Heat Kills Hundreds, Oregon Steps Up Push to Protect People*, WEEKEND EDITION SATURDAY NAT’L PUB. RADIO (July 17, 2021, 7:00 AM), <https://www.npr.org/2021/07/17/1016415960/as-extreme-heat-kills-hundreds-oregon-steps-up-push-to-protect-people> [https://perma.cc/5PX5-J2VA].

133. Julie Sabatier, *PSU Professor Suggests Ways Cities Could Adapt to Hotter Temperatures*, OR. PUB. BROAD: THINK OUT LOUD (Aug. 13, 2021, 4:47 PM), <https://www.opb.org/article/2021/08/12/psu-professor-suggests-ways-cities-could-adapt-to-hotter-temperatures/> [https://perma.cc/M664-2KLD].

134. Henry Fountain, *Climate Change Drove Western Heat Wave’s Extreme Records*, N.Y. TIMES (Aug. 12, 2021), <https://www.nytimes.com/2021/07/07/climate/climate-change-heat-wave.html> [https://perma.cc/9GSH-R97W].

135. *Id.*

136. *Id.*

lengthier wildfire season in the western United States¹³⁷ and existing neighborhood inequities,¹³⁸ it is truly a crisis.

A. Oregon's Heat Illness Prevention Standard

Oregon's effort to address worker safety from excessive heat and wildfire smoke began before the record-breaking heatwave. On March 10, 2020, Governor Brown issued Executive Order 20-04, which directed the Oregon Health Authority and Oregon OSHA to jointly develop standards to protect workplace employees from exposure to wildfire smoke and excessive heat.¹³⁹ In March 2021, Oregon OSHA convened a rules advisory committee, outlining a proposed series of meetings and a process for developing the new rules.

Following the June 2021 heatwave, Oregon quickly adopted "Temporary Rules to Address Employee Exposure to High Ambient Temperatures."¹⁴⁰ This temporary standard applied to both indoor and outdoor workplaces and set out certain procedures for employers based around heat index thresholds.¹⁴¹ When the heat index temperature in the work area reached or exceeded 80 degrees Fahrenheit, employers were required to ensure access to shade and drinking water.¹⁴² When the heat index reached or exceeded 90 degrees Fahrenheit, the rule mandated additional procedures, like monitoring employees for signs of heat illness, ensuring effective communication between employees and supervisors existed, and required cool-down rest periods in shaded areas regardless of length of shift.¹⁴³

But the temporary standard was just that—temporary. Oregon soon began the rulemaking process to adopt permanent rules aimed at protecting workers from heat-related harms. On January 28, 2022, Oregon OSHA filed proposed rules within the Secretary of State to address exposure to

137. Maanvi Singh, *Fire Season is Getting Longer*, HIGH COUNTRY NEWS (Aug. 26, 2021), <https://www.hcn.org/articles/climate-desk-wildfire-fire-season-is-getting-longer> [https://perma.cc/B2YR-SHBF].

138. Voelkel et al., *supra* note 130, at 650.

139. Off. of Governor State of Or., Exec. Order No. 20-04 on Directing State Agencies to Take Action to Reduce and Regulate Greenhouse Gas Emissions, sec. 11(c) (Mar. 10, 2020), <https://www.oregon.gov/bcd/Documents/eo-energy-20-04.pdf> [https://perma.cc/WBU7-DZL2].

140. Aaron Corvin, *Oregon OSHA Adopts Emergency Rule Bolstering Protections for Workers Against the Hazards of High and Extreme Heat*, OREGON.GOV (July 8, 2021), <https://osha.oregon.gov/news/2021/Pages/nr2021-26.aspx> [https://perma.cc/X3A8-7YQQ].

141. OR. ADMIN. R 437-002-0156 (2022).

142. *Id.*

143. *Id.*

high ambient temperatures for employees in the workplace and in employer-provided housing.¹⁴⁴

Oregon OSHA's rulemaking summary explained that the proposed rules apply to all workers in Oregon covered under the Oregon Safe Employment Act (OSEA).¹⁴⁵ The purpose of the OSEA is

to ensure as far as possible safe and healthful working conditions for every working person in Oregon, to preserve our human resources and to reduce the substantial burden, in terms of lost production, wage loss, medical expenses, disability compensation payments and human suffering, that is created by occupational injury and disease.¹⁴⁶

In support of this stated purpose, OSEA authorizes the Director of the Department of Consumer and Business Services and their designees to "set reasonable, mandatory, occupational safety and health standards for all employments and places of employment."¹⁴⁷ OSEA also provides that the director may prescribe the "devices, safeguards or other means of protection and what methods, processes, or work practices are well adapted to render every employment and place of employment safe and healthful."¹⁴⁸

Oregon OSHA held three virtual hearings, and solicited public comment on the proposed rules through March 18, 2022. Oregon OSHA reported receiving over 300 comments on the proposed heat rules during the comment period; approximately 170 opposed the rules in some form and 145 supported the rule with some modifications.¹⁴⁹ The comments keyed in on a few issues: (1) the scope and application of the rules, (2) exemptions, (3) definitions, including the definition of "feasibility," (4) shade, (5) water, (6) high heat practices, and (7) required plans and documentation, including an acclimatization plan, heat illness prevention plan, and training documentation.¹⁵⁰ Comments were also submitted on aspects of the labor housing standard.¹⁵¹

144. See Rules to Address Employee and Labor Housing Occupant Exposure to High Ambient Temperatures, (proposed Jan. 28, 2022) (to be codified at OAR 437-002-0156, 437-004-1131, 437-004-1120), <https://osha.oregon.gov/OSHArules/proposed/2022/ltr-proposed-heat-exposure.pdf> [<https://perma.cc/4CXH-YSBP>].

145. *Id.*, exhibit. A.

146. OR. REV. STAT. § 654.003 (2021).

147. § 654.003(3).

148. § 654.035(1)(a).

149. See *generally*, Rules to Address Employee and Labor Housing Occupant Exposure to High Ambient Temperatures, AO 3-2022, 6-12. (May 9, 2022), (to be codified at OAR 437-002-0156, 437-004-1131, 437-004-1120), [<https://perma.cc/6S6W-YBPM>].

150. *Id.* at 12

151. *Id.* at 1, 17, 32.

On May 9, 2022, the final heat standards were adopted.¹⁵² The final rules include both a heat illness prevention standard and a heat standard for employer-provided worker housing.¹⁵³ The rules apply to outdoor and indoor work activities when temperatures exceed 80 degrees Fahrenheit, and require employers to provide employees with access to shade, cool drinking water; when temperatures exceed 90 degrees Fahrenheit, additional rest breaks are required. The rules require heat illness prevention training, and the adoption of an acclimatization plan. Oregon OSHA noted certain limitations to the scope of the instant rulemaking decision, including “Oregon OSHA’s rulemaking authority is limited by its specific ability to regulate safe and healthy work practices – not to prohibit certain types of work.”¹⁵⁴

One major concern voiced by workers’ rights groups and environmental groups about the final rule was enforcement.¹⁵⁵ The program director for Oregon Environmental Council noted that the rules are “common-sense protections,” but “what remains to be seen is how it will be implemented and how successful it will be.”¹⁵⁶ Other advocates wondered about the risks of retaliation if complaints are submitted, and about how rigorous investigations and enforcement actions would be.¹⁵⁷

While workers’ rights groups generally reacted favorably to the promulgation of new rules, industry and trade organizations did not. Oregon Manufacturers and Commerce, Associated Oregon Loggers Inc., and the Oregon Forest Industries Council sued Oregon OSHA and the Oregon Department of Consumer and Business Services, claiming that the new rules violate the 14th Amendment and state policy.¹⁵⁸ The groups alleged that the new rules are “so vague that they do not provide employers, including Plaintiffs’ members, with fair notice of what conduct is required or proscribed, and as such are violative of the due process protections of the 14th Amendment to the United States Constitution.”¹⁵⁹ The plaintiffs also alleged that in allowing the mandated heat illness prevention break to be treated as a “work

152. *Id.*

153. *Id.* at 5; *see also* Or. OSHA Admin. Ord. 4-2022 (May 10, 2022) (rule addressing exposure to wildfire smoke was also adopted as part of the overall rulemaking package).

154. Or. AO 3-2022, *supra* note 149, at 5.

155. Monica Samayoa, *Oregon Adopts Heat and Smoke Rules for Workers*, OPB (May 11, 2022, 7:50 PM), <https://www.opb.org/article/2022/05/11/oregon-heat-wildfire-smoke-farmwork-laborer-rules/> [<https://perma.cc/NX32-GKTT>].

156. *Id.*

157. *Id.*

158. Complaint at 1018, , Or. Mfr. & Com., et al. v. Or. Occupational Safety & Health Div., No. 1:22-cv-00875, (D. Or. June 15, 2022).

159. *Id.*

assignment,” the defendant agencies required employers to pay for breaks, and that state law does not authorize the agencies to regulate “general societal hazards” which affect employees in and out of the workplace.¹⁶⁰

The defendant agencies and agency officials moved to dismiss the industry plaintiffs’ complaint on multiple grounds, asserting that all claims against state agencies and state law claims against individual officials were barred by the Eleventh Amendment to the Constitution and the doctrine of sovereign immunity, and that federal due process claims failed to state a claim pursuant to Fed. R. Civ. P 12(b)(6).¹⁶¹ Hon. Mark D. Clarke held oral argument on the motion on December 6, 2022, at which he expressed skepticism about the industry plaintiffs’ claim that employers would struggle to comply with the new rules, especially the wildfire smoke exposure rule.¹⁶² “I’m not sure any of us [Oregonians] have any trouble knowing when wildfire smoke rolls in. I’m having trouble with that, factually[,]” Judge Clarke stated, in response to the industry plaintiffs’ argument that determining when air quality is impacted by wildfire smoke is challenging.¹⁶³ Judge Clarke dismissed the claims with prejudice on December 20, 2022, concluding that neither rule is unconstitutionally vague, and that all claims asserted against the state agencies and the state law claims against the individual agency officials are barred by sovereign immunity.¹⁶⁴

It is early for a full assessment of the new heat standards’ efficacy at protecting worker health and safety, but some initial information is available. In the period following the rules’ effective date through the end of the summer, 2022 (roughly June 15 through September 20), Oregon OSHA received 258 heat-related complaints, ten of which resulted in fines.¹⁶⁵ Most violations arose from an employer’s failure to have written acclimatization or rest break plans in place.¹⁶⁶ Several employers were fined for multiple

160. *Id.* at 9, 1213, 1617.

161. Motion to Dismiss, Or. Mfr. & Com., et al. v. Or. Occupational Safety & Health Div., No. 1:22-cv-00875, ECF No. 20 (D. Or. Sept. 2, 2022).

162. Shannon Sollitt, *Judge Dismisses Lawsuit Challenging Oregon’s New Heat and Wildfire Smoke Rules*, SALEM STATESMAN J. (Dec. 21, 2022, 9:05 AM), <https://www.statesmanjournal.com/story/news/local/2022/12/21/oregon-osh-wildfire-heat-smoke-rule-lawsuit-dismissed-judge-unconstitutional/68351073007/> [<https://perma.cc/P4KU-5CVC>].

163. *Id.*

164. Opinion and Order, Or. Mfr. & Com., et al. v. Or. Occupational Safety & Health Div., No. 1:22-cv-00875, ECF No. 36 (D. Or. Dec. 20, 2022).

165. Shannon Sollitt, *Heat and Wildfire Smoke Rules in Oregon Yield Some Citations, Many Osha Complaints*, SALEM STATESMAN J. (Sept. 27, 2022, 11:00 AM), <https://www.statesmanjournal.com/story/news/local/2022/09/27/how-well-did-osh-heat-wildfire-smoke-rules-work-in-oregon-ona-farm-bureau-farmworkers/69507758007/> [<https://perma.cc/QY7Y-Q2H5>].

166. *Id.*

offenses, although some employers were able to avoid a citation by correcting an identified issue with an inspector on-site.¹⁶⁷

Although only one of the ten companies to receive a monetary penalty was an agricultural employer, it does not necessarily follow that the agricultural sector achieved a high rate of compliance with the rules.¹⁶⁸ Ira Cuello Martinez serves as Policy Advocacy Director for Pineros y Campesinos Unidos del Noroeste (PCUN), a union for Oregon's farmworkers, nursery workers, and Latino working families, and noted that farmworkers may fear losing their jobs or other employer retaliation if they report violations to Oregon OSHA.¹⁶⁹ PCUN surveyed 25 of its members in August, 2022; of those, two-thirds had received some training about heat-related stress, and twenty reported having access to cool water on their worksite.¹⁷⁰ Still, 21 of the 25 respondents said that they would not report violations to OSHA.¹⁷¹ This reluctance to report workplace violations is not unique to the heat rule context, and, as scholars note, workers' fears may be justified.¹⁷²

B. Other State and Federal Efforts to Protect Workers from Extreme Heat

In adopting its temporary and permanent heat standards, Oregon had few existing examples to follow. Only California and Washington have occupational heat stress safeguards for outdoor workers, and California and Minnesota have standards protecting indoor workers. Several states—including Virginia, Maryland, and Nevada—have introduced legislation to protect workers from extreme heat in the workplace, but most have taken no action.

Federal OSHA does not have a specific standard in place for high heat conditions. In September 2021, federal OSHA published an advance notice of proposed rulemaking stating the agency's intent to develop regulations to protect indoor and outdoor workers from hazardous heat.¹⁷³ OSHA also

167. *Id.*

168. *Id.*

169. *Id.*

170. *Id.*

171. *Id.*

172. See, e.g., Keith Cunningham-Parmeter, *Fear of Discovery: Immigrant Workers and the Fifth Amendment*, 41 CORNELL INTL. L. J. 27, 44 (2008) (discussing frequent decision by unauthorized immigrant workers to remain silent even where egregious workplace violations occur and citing studies suggesting that INS raids were more likely to occur at workplaces where immigrant workers filed complaints).

173. Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings, 86 Fed. Reg. 59,309 (proposed Oct. 27, 2021) (to be codified at 29 C.F.R. pts. 1910, 1915, 1917, 1918, 1926, 1928).

published guidance to regional administrators outlining an enforcement initiative that would prioritize heat-related interventions on days when the heat index exceeds 80 degrees Fahrenheit.¹⁷⁴ OSHA accepted comments on the advanced notice through January 26, 2022.

III. Heat Standards as Tools of Environmental Justice

Robert Kuehn’s “A Taxonomy of Environmental Justice” provides a helpful framework for understanding the “justice” component of environmental justice.¹⁷⁵ Kuehn’s influential article discusses four dimensions of justice—distributive, procedural, corrective, and social—and examines the meaning and relevance of each. For each aspect of justice, Kuehn identifies allegations of injustice and the implications of those injustices.¹⁷⁶ He concludes by recommending that government officials and private parties address these four aspects of their actions, and asserts that compliance with existing law is not sufficient if one has environmental justice as a goal.¹⁷⁷

Using Professor Kuehn’s four-part categorization scheme, I evaluate heat standards through the lens of each dimension of justice. In my view, robust heat-illness prevention standards can serve as a means of advancing aspects of justice for food system workers. On their own, though, heat standards are limited by the philosophy of “agricultural exceptionalism” built in to the laws that regulate industrial farming and treatment of food system workers, discussed in greater detail in Section IV. Nonetheless, the adoption of strong state and federal heat standards could provide a meaningful benefit and increased health protection immediately, and should be implemented while large-scale change to the food system continues.

A. Distributive justice

Distributive justice focuses on fairly distributed outcomes, rather than the process for arriving at those outcomes.¹⁷⁸ It does not mean redistributing pollution or risk; rather, advocates argue that it means equal protection for everyone and that the need to place hazardous activities in any

174. See Memorandum from Kimberly Stille, Acting Dir. Of U.S. Dep’t of Labor’s Occupational Safety & Health Admin., to State Designees on Inspection Guidance for Heat-Related Hazards 1 (Sept. 1, 2021) (available through OSHA archives), <https://www.osha.gov/laws-regs/standardinterpretations/2021-09-01> [<https://perma.cc/9RSW-K4BC>].

175. Robert R. Kuehn, *A Taxonomy of Environmental Justice*, 30 ENV’T L. REP. 10681, 10683-702 (2000).

176. *Id.* at 10681-82.

177. *Id.* at 10703.

178. *Id.* at 10684.

community is eliminated.¹⁷⁹ Thus, distributive justice is achieved through a lowering of total risks, rather than a shifting or equalizing of existing risks.¹⁸⁰ Importantly, as Kuehn explains, in the environmental justice context, distributive justice involves the equitable distribution of both burdens and benefits—that is, distributive justice would address both the disproportionate public health and environmental risks borne by people of color and people with lower incomes, but would also address the ease of access to green spaces and beaches, safe drinking water, and public transportation.¹⁸¹

Food system workers are no strangers to distributive injustice. During the early days of the COVID-19 pandemic, many Americans transitioned to some form of remote work. Yet, farmworkers, grocery store employees, restaurant servers, and workers in meatpacking facilities—designated as “essential” workers—continued to show up to the same physical place of work each day.¹⁸² It was unsurprising and tragic that some of the country’s early COVID-19 outbreaks occurred among workers in these settings.¹⁸³ Farmworkers often faced obstacles to testing and quarantining because of shared, dense housing arrangements.¹⁸⁴ A University of Oregon study reported that the estimated 174,000 farmworkers in Oregon experienced disproportionate infection rates.¹⁸⁵ While Latina/o farmworkers accounted for roughly 24.2 percent of COVID-19 cases in Oregon, they represent only 13 percent of the population.¹⁸⁶

Before they were called on to risk their health during a once-in-a-lifetime pandemic, farmworkers knew the distributive injustice of pesticide exposure. Pesticides are widely used on crops all across the United States as a

179. *Id.*

180. *Id.*

181. *Id.*

182. DEP’T OF HOMELAND SECURITY’S CYBERSECURITY & INFRASTRUCTURE SEC. AGENCY, GUIDANCE ON THE ESSENTIAL CRITICAL INFRASTRUCTURE WORKFORCE: ENSURING COMMUNITY AND NATIONAL RESILIENCE IN COVID-19 RESPONSE 10 (ver. 4.1, 2021), https://www.cisa.gov/sites/default/files/publications/essential_critical_infrastructure_workforce-guidance_v4.1_508.pdf [<https://perma.cc/AU4G-VCQ5>].

183. See News Release, U.S. Dep’t. of Lab. & OSHA, JBS Foods USA Reaches Settlement with OSHA to Develop, Implement Infectious Disease Preparedness Plan at Seven Meat Processing Plants, 1 (May 27, 2022), <https://www.osha.gov/news/newsreleases/national/05272022> [<https://perma.cc/B4XM-ADV5>]; see also Michael Roberts, *COVID-19: Six Metro Denver King Soopers Stores Declared Outbreaks*, WESTWORD (June 4, 2020, 6:32 AM), <https://www.westword.com/news/covid-19-update-six-denver-area-king-soopers-stores-called-outbreaks-11722383> [<https://perma.cc/B73Y-VCXV>].

184. Emily Halnon, *COVID-19 has hit Farmworkers Especially Hard, UO Studies Show*, UNIV. OF OR. (Aug. 30, 2021, 5:00 AM), <https://around.uoregon.edu/content/covid-19-has-hit-farmworkers-especially-hard-uo-studies-show> [<https://perma.cc/7DRP-2UZW>].

185. *Id.*

186. *Id.*

way to increase crop yield by deterring or destroying agricultural pests.¹⁸⁷ In 2017, farmers spent more than \$17.5 billion on pesticides, roughly \$37 for every acre treated.¹⁸⁸ Farmworkers may be exposed to pesticides directly if their job includes pesticide handling or application, but they may also be exposed to pesticides as a result of being present in an area receiving pesticide application, drift from neighboring fields, or contact with pesticide residue on crops or soil.¹⁸⁹ Most reported pesticide poisonings are from workers who are not working directly with pesticides, and while data are limited, estimates suggest that thousands of farmworkers experience acute pesticide poisoning every year.¹⁹⁰ Farmworkers are more likely to experience pesticide poisoning than workers employed in other jobs, and their injuries are likely to be more severe than pesticide poisonings that occur in other populations.¹⁹¹

People working as farmworkers might be considered vulnerable even without accounting for the impacts of extreme heat.¹⁹² The 2017 Census of Agriculture estimates that roughly 2.4 million farmworkers are employed on farms and ranches in the United States, either as self-employed farmers and their family members, or as hired farmworkers.¹⁹³ In 2015-16, about three-quarters of farmworkers were people of color.¹⁹⁴ During roughly the same

187. I use “pesticides” broadly as those compounds that might also be described as insecticides, fungicides, rodenticides, and herbicides (compounds targeting insects, fungus, rodents, and plants, respectively); this list is not exhaustive.

188. *Farmworkers at Risk: The Growing Dangers of Pesticides and Heat*, UNION OF CONCERNED SCIENTISTS 3 (Nov. 2019), <https://www.ucsusa.org/sites/default/files/2019-12/farmworkers-at-risk-report-2019-web.pdf> [<https://perma.cc/J2SC-Q55T>], (citing *Quick Stats*, NATIONAL AGRICULTURAL STATISTICS SERVICE (2019), <https://quickstats.nass.usda.gov> [<https://perma.cc/3NUV-KGGH>]).

189. Christos A. Damalas & Spyridon D. Koutroubas, *Farmers’ Exposure to Pesticides: Toxicity Types and Ways of Prevention*, 4 TOXICS 1 (2016), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5606636/> [<https://perma.cc/8EZQ-EDUV>].

190. UNION OF CONCERNED SCIENTISTS, *supra* note 188, at 3.

191. *Id.* at 6. Additionally, it is important to keep in mind, to make matters worse, the combined effect of pesticide exposure and extreme heat conditions exacerbate the risks of each. Higher temperatures can increase pesticide volatilization rates, which can raise airborne concentrations and lead to a higher risk of exposure for workers.

192. Villa, *supra* note 15, at 510-11 (discussing vulnerability theory).

193. U.S. DEP’T OF AGRIC., AC-17-A-51, *2017 Census of Agriculture*, 339 (vol. 1, 2019), https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_US/usv1.pdf. [<https://perma.cc/SG7R-ZAXE>]. Importantly, data about farmworkers can be challenging to collect. Because agricultural work is seasonal and sometimes informal, counting people employed as farmworkers is difficult. Farmworkers who are undocumented (and the employers who hire them) are often reluctant to provide information or respond to surveys. Thus, researchers estimate that the information about farmworkers, including occupational injuries and illnesses, is underreported. See UNION OF CONCERNED SCIENTISTS, *supra* note 188, at 3.

194. UNION OF CONCERNED SCIENTISTS, *supra* note 188, at 2.

time period, about 73 percent of crop farmworkers were immigrants; about 21 percent were permanent residents or held authorized legal status, and nearly 50 percent held no work authorization.¹⁹⁵ As a group, farmworkers face economic hardship, encounter language barriers and cultural differences, and often lack legal protections or benefits afforded to others in labor laws (like overtime pay).¹⁹⁶

While state—or federal—heat illness prevention rules would not fully eliminate the risk of heat illnesses, they would help reduce the overall risk extreme heat poses by creating some safeguards for the population currently bearing a disproportionate share of the burden of high temperatures. By requiring access to shade, cool drinking water, and additional rest breaks, Oregon’s rules serve to mitigate some of the direct health risks posed by working in high temperatures where the work cannot be avoided entirely. Additionally, for those workers who live in employer-provided housing, Oregon’s rules reduce the risk of extreme heat interfering with workers’ rest and sleep.¹⁹⁷ Reducing the frequency and duration that workers are exposed to extreme heat and adding various cooling methods is a laudable step to improving the health and safety of food system workers.¹⁹⁸

Given the nature of the work and existing limitations in the broader system of food production and distribution, though, the burden can only be reduced so far. The very nature of food system work in our current system is relatively inflexible. Growing crops and raising livestock does not easily translate to remote work; large areas of land, access to water, and particular soil types and climates are needed. Additionally, agricultural work is

195. *Farm Labor*, U.S. DEP’T OF AGRIC.’S ECON. RSCH. SERV. (March 15, 2022), <https://www.ers.usda.gov/topics/farm-economy/farm-labor/#demographic> [<https://perma.cc/2U8J-FS89>].

196. UNION OF CONCERNED SCIENTISTS, *supra* note 188, at 2.

197. *See* Rules to Address Employee and Labor Housing Occupant Exposure to High Ambient Temperatures, OAR 437-002-0156 (proposed May 9, 2022). Oregon’s rules require employers to attempt to minimize heat in worker-provided housing, and if indoor temperatures cannot be maintained at 78 degrees Fahrenheit or less in rooms where people sleep, employers must provide access to cooling areas that could accommodate at least 50% of occupants. *See also* Summary of Comments and Agency Decisions, *in* Rules to Address Employee and Labor Housing Occupant Exposure to High Ambient Temperatures, AO 3-2022 (May 9, 2022), <https://osha.oregon.gov/OSHARules/comments/comments-and-decisions-AO3-2022-alh-heat-rules.pdf> [<https://perma.cc/BNP8-R5G7>]. In the rulemaking process, Oregon OSHA received five comments from worker advocates recommending increasing the capacity requirement based on concerns about how workers would cool down if the cooling area did not allow space for all occupants. In response, Oregon OSHA explained that these issues will be carried over to discussions with the Agriculture Labor Housing Advisory Committee.

198. *See id.* Enforcement is essential to ensuring that the risks posed by high temperatures are actually reduced. During the rulemaking process, several worker advocacy groups commented on the importance of enforcement and the difficulty involved in measuring employer compliance with the rules.

seasonal. Ideal harvest dates for crops cannot be adjusted in the way that a product launch might be delayed or accelerated in response to external market or societal conditions. In a nutshell, our current food system demands that farmworkers and other agricultural workers show up to a particular physical location at a specific time. Thus, the relative inflexibility of current food system work limits the degree to which heat standards can promote distributive justice.

B. Procedural justice

Procedural justice involves justice “as a function of the manner in which a decision is made, and it requires a focus on the fairness of the decision-making process, rather than on its outcome.”¹⁹⁹ It prioritizes values like inclusiveness, representation, parity, and communication.²⁰⁰ Procedural justice may be more likely to exist where the process for decision-making is agreed upon in advance, is fair to all involved, and is implemented in a way that does, in fact, treat involved parties with equal concern and respect.²⁰¹ Methods for achieving procedural justice include deliberative models of decision-making and ensuring that groups have equal access to decisionmakers and to the process; this may involve providing disadvantaged groups with greater legal and technical resources.²⁰² Importantly, procedural justice focuses less on the outcome than the process involved in reaching that outcome. Indeed, some scholars and governmental entities have argued that where a decisionmaker neutrally weighs competing interests, a result that subordinates one group to another would not be an unjust outcome.²⁰³

Oregon OSHA convened nine Rules Advisory Committee meetings over an eight-month period.²⁰⁴ It published multiple draft excessive heat rules, and received comments and suggested edits to the draft rules from stakeholder groups in March 2021.²⁰⁵ After the proposed rules were filed with

199. Kuehn, *supra* note 175, at 10688.

200. *Id.* (citing Robert D. Bullard, *Overcoming Racism in Environmental Decisionmaking*, 36 ENV'T 11, 12–15 (1994)).

201. *Id.*

202. Some examples include providing materials in multiple languages, creating fact sheets or guides, or holding question and answer sessions for specific stakeholder groups.

203. *Id.* at 10692 (citing H.L.A. HART, *THE CONCEPT OF LAW* 167 (2d ed. 1994); Michael Greenberg, *Proving Environmental Inequity in Siting Locally Unwanted Land Uses*, 4 RISK 235, 236 (1993)).

204. Rules to Address Employee and Labor Housing Occupant Exposure to High Ambient Temperatures, *supra* note 149, at 4.

205. *Id.*; see also OR. OCCUPATIONAL SAFETY & HEALTH ADMIN, 437-002-XXXX, COMMENTS ON DRAFT RULES FROM STAKEHOLDERS (2021),

the Secretary of State in January, 2022, Oregon OSHA accepted comments via voicemail message, in writing, and during three virtual public hearings, including one hearing conducted in Spanish.²⁰⁶ In its explanation of the final rules, Oregon OSHA made clear that it had also researched efforts by other states and the federal government to protect workers from heat-related illnesses.²⁰⁷

The notice-and-comment rulemaking process is expressly designed to solicit public input on and participation in the decision-making process, aligning well with the concept of procedural justice. In the Oregon example, Oregon OSHA sought public input early in the process by establishing an advisory committee.²⁰⁸ At the committee's introductory presentation, Oregon OSHA set guidelines and expectations for the committee that included "[e]veryone participates[,]""[o]ne person speaks at a time[,]""[b]e respectful and stay on point[,]"" and "ALL recommendations and suggestions may or may not be incorporated in the proposed rules."²⁰⁹ Although Oregon's Administrative Procedure Act does not require a written explanation of the agency's decision, Oregon OSHA provided such an explanation.

At least some participants have voiced opinions suggesting that the Oregon process was procedurally just. Commenting on the trade associations' lawsuit, Climate Jobs' Leslie Kochan remarked that "OSHA's process to craft wildfire smoke and heat rules was rigorous and inclusive[,]"" noting that OSHA heard from industry workers, physicians, and occupational health experts.²¹⁰ An attorney at the Northwest Workers' Justice Project said that employers had ample time to participate and comment during the rule-

<https://osha.oregon.gov/rules/advisory/heat/Documents/HeatStressCommentsOnDrafts-FromStakeholders.pdf> [<https://perma.cc/Z3WM-FSJP>].

206. Rules to Address Employee and Labor Housing Occupant Exposure to High Ambient Temperatures, *supra* note 149, at 4.

207. *Id.* at 1-2.

208. See *Rules Advisory Committees Excessive Heat and Wildfire Smoke: Introductory Rulemaking Presentation*, OR. . OCCUPATIONAL SAFETY & HEALTH ADMIN. 4-5 (March 4, 2021), <https://osha.oregon.gov/rules/advisory/smoke/Documents/SmokeHeatIntroductoryPresentation.pdf> [<https://perma.cc/U3LA-59RZ>].

209. *Id.*

210. Jerry Howard, *Federal Lawsuit Filed in Medford Challenges Pending Oregon Smoke, Heat Rules*, KDRV (June 27, 2022), https://www.kdrv.com/news/federal-lawsuit-filed-in-medford-challenges-pending-oregon-smoke-heat-rules/article_14291c42-f571-11ec-94d2-d3c56782732d.html [<https://perma.cc/JRH2-9LXW>].

making process,²¹¹ and the comments from stakeholders appear to confirm participation by employers.²¹²

On balance, the process involved in the Oregon heat standard rulemaking appears to further procedural justice. By setting expectations for broad participation, offering multiple opportunities to submit comments in a variety of formats, holding one public meeting in Spanish, and offering an explanation of its decision-making after the process concluded, Oregon OSHA sought to establish and follow an inclusive process. This does not mean that the process necessarily represented complete participation from all those who might be impacted by the decision, though. The unique vulnerability of farmworkers as a group make it difficult to fully understand if all potentially-affected workers (1) were aware of the ability to participate in the rulemaking process, (2) knew how to participate in the process, and (3) felt free to participate without fear of retaliation by their employer or fear of exposure to unwanted governmental scrutiny.²¹³ A large coalition of unions, workers' rights groups, environmental organizations, policy and research groups, and public health associations submitted stakeholder comments during the rule advisory committee process,²¹⁴ so it is reasonable to infer that at least some access existed.

C. Corrective justice

Corrective justice focuses on wrongdoing and injury, and involves assigning punishment to violators and imposing a duty to repair losses one causes.²¹⁵ As Kuehn explains, in the environmental justice context, accountability for damages is important regardless of fault, e.g., the "polluter-pays" principle.²¹⁶ This aspect of justice may encompass concepts of "retributive," "compensatory," "restorative," and "commutative" justice, and may also

211. Jamie Goldberg, *Business Groups Challenge Oregon Rules Meant to Protect Workers from Heat, Wildfire Smoke*, THE OREGONIAN (June 23, 2022, 10:49 AM), <https://www.oregonlive.com/business/2022/06/business-groups-challenge-oregon-rules-meant-to-protect-workers-from-heat-wildfire-smoke.html> [<https://perma.cc/R88W-JBLM>].

212. See OR. OCCUPATIONAL SAFETY & HEALTH ADMIN. *supra* note 205 (demonstrating examples of comments on Oregon OSHA rulemaking. Commenters include, the Oregon State Chamber of Commerce, Oregon Business & Industry, Oregon Farm Bureau and other agricultural organizations, timber industry groups, and automotive groups).

213. See generally, Daisy Contreras, *Farmworkers Who Face Extreme Heat Fear Retaliation or Deportation if They Complain, Says Nurse*, THE WORLD (July 21, 2021, 1:15 PM), <https://theworld.org/stories/2021-07-21/farmworkers-who-face-extreme-heat-fear-retaliation-or-deportation-if-they> [<https://perma.cc/8JSQ-Y3JP>].

214. See OR. OCCUPATIONAL SAFETY & HEALTH ADMIN. *supra* note 205.

215. Kuehn, *supra* note 175, at 10693 (citing Jules L. Coleman, *The Practice of Corrective Justice*, 27 ARIZ. L. REV. 15, 30 (1995)).

216. *Id.* at 10694.

implicate distributive or procedural justice.²¹⁷ Corrective justice reflects the broad ideas that injuries incurred at the hand of another person should be remedied, and those parties who disregard the law should be punished.²¹⁸

The adoption of a heat illness-prevention standard, without more, does not immediately map on to the concept of corrective justice. In the abstract, one could consider that a heat standard serves to correct the wrongdoing of the industrial food system; workers' health and safety is now a higher priority. A problem that this view fails to recognize, though, is that food system workers are often harmed not by employers violating any law, but by the glaring loopholes and exemptions built into the laws themselves.²¹⁹ The rules themselves do not appear to remedy a wrongdoing or establish accountability for existing injuries. Going forward, the imposition and enforcement of new legal requirements around extreme heat could promote corrective justice. This ultimately depends on the degree to which the rules are enforced.

During and after Oregon's rulemaking process, environmental and workers' rights advocates emphasized the importance of enforcement.²²⁰ One advocate opined that enforcement of the rest break schedule might be difficult to oversee, in part due to the agency's decision to allow employers to develop one of three schedule break plans when temperatures reach 90 degrees or higher.²²¹ The advocate also recommended that Oregon OSHA have dedicated inspectors to investigate specific job sites, such as warehouses and construction sites.²²² Another farmworker advocate pointed out that while the rules are a "step in the right direction," many farmworkers have struggled to trust Oregon OSHA and are reluctant to file complaints.²²³ They described experiences farmworkers have had involving a lack of communication or follow up, and the perception that employers were not sufficiently fined for some workplace complaints.²²⁴ The advocate also shared

217. *Id.* at 10693-94.

218. *Id.* at 10694.

219. For example, the exemption of agricultural workers from the overtime pay requirements of the Fair Labor Standards Act (*see, e.g.*, U.S. DEP'T OF LABOR, WAGE & HOUR DIV., FACT SHEET # 12, AGRICULTURAL EMPLOYEES UNDER THE FAIR LABOR STANDARDS ACT (2020) <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/whdfs12.pdf> [<https://perma.cc/L9Q3-98NB>]).

220. Samayoa, *supra* note 155.

221. *Id.*

222. *Id.*

223. *Id.*

224. *Id.*

workers' fears that if they speak up, they could face retaliation in the form of job loss or total blacklisting from contractors.²²⁵

To aid in promoting corrective justice in the context of Oregon's heat standards, Oregon OSHA should ensure that worker complaints are taken seriously and investigated as promptly as possible. Following implementation, the agency should assess the ease with which workers are able to raise questions and concerns with their employers and to Oregon OSHA, and the degree to which those concerns are addressed.

D. Social justice

The final dimension of justice in Professor Kuehn's taxonomy is social justice. Social justice is broad, and represents a perspective that situates environmental justice as one strand of the larger problems of racial, social, and economic justice.²²⁶ Such a perspective considers the role and influence of race, ethnicity, income level, political power, and culture in environmental decision-making.²²⁷ Thus, the common phenomenon of siting an environmentally harmful facility near a community of color under the guise of job creation and a shortcut to economic prosperity flows from the history of housing discrimination, segregation, and other policies that have compelled these communities to have no choice but to tolerate less-healthy areas.²²⁸

It is important to note that while many farmworkers and food system workers experience a level of personal vulnerability relative to their employers and the state, they have successfully exercised power and influence to advance justice in significant ways. The United States workforce is experiencing renewed energy around labor organizing and worker empowerment. Over the past year, more than 230 Starbucks stores have filed petitions for union elections and roughly 50 stores have voted to join the nation union Workers United.²²⁹ In 2022, warehouse workers for the e-commerce giant Amazon made history when they elected to form a union at a Staten Island

225. *Id.*

226. Kuehn, *supra* note 175, at 10699 (citing Dana A. Alston, *Introduction*, in *WE SPEAK FOR OURSELVES: SOCIAL JUSTICE, RACE AND ENVIRONMENT* 3 (1990)).

227. *Id.* (citing Robert D. Bullard, *Unequal Environmental Protection: Incorporating Environmental Justice in Decision Making*, in *WORST THINGS FIRST?* 237, 258 (Adam M. Finkel & Dominic Golding eds., 1990)).

228. *Id.* at 10700 (citing Michael Gelobter, *The Meaning of Urban Environmental Justice*, 21 *FORDHAM URB. L.J.* 841, 843 (1994)).

229. Rina Torchinsky, *Starbucks Union Says the Coffee Giant is Closing a Store to Retaliate*, NPR (June 5, 2022, 9:24 AM), <https://www.npr.org/2022/06/04/1103114098/starbucks-union-ithaca-store-closing> [<https://perma.cc/D524-MAW4>].

warehouse.²³⁰ In 2018, North Carolina's only farmworkers union—the Farm Labor Organizing Committee, or FLOC—won an important victory in a federal lawsuit challenging a state law that would have curtailed FLOC's ability to bargain for voluntary union recognition in settling legal claims.²³¹

Kuehn notes that a common result of local environmental justice efforts is greater subsequent political involvement by local residents on other issues.²³² While it is difficult to say with certainty, the energy around workplace heat standards may have energized advocates focused on securing overtime pay for farmworkers (or vice versa). Under the national Fair Labor Standards Act, employees who are employed in agriculture are exempt from overtime pay provisions.²³³ Few states mandate overtime pay for farmworkers.²³⁴ On April 18th, Governor Brown signed House Bill 4002, which requires agricultural workers to receive overtime pay.²³⁵ The phased approach will begin in 2023 by requiring time-and-a-half wages after 55 hours per week, and will adjust the requirement to kick in at 48 hours per week in 2025-26, before finally landing at 40 hours per week in 2027.²³⁶

The adoption of Oregon's heat standards and overtime pay requirement illustrate the interconnected and complex relationship between environmental issues with other social issues. The obvious goal of Oregon's heat standard is to protect worker health and safety, but an ancillary effect may be to reduce healthcare costs associated with heat-related illnesses. As farmworkers continue to suffer from the dual burden of extreme heat and COVID-19, some researchers have called for more studies integrating the two topics.²³⁷ For example, they recommend research into whether a connection exists between long-haul COVID and heat susceptibility and

230. Andrea Hsu, *Inside the Marathon Zoom Call Where Amazon Seeks to Overturn Historic Union Victory*, NPR (June 22, 2022, 3:42 PM), <https://www.npr.org/2022/06/22/1106410279/zoom-hearing-amazon-labor-union-overturn-staten-island-warehouse-nlrb> [<https://perma.cc/N5BP-KL6D>].

231. *Farm Labor Organizing Committee, et al. v. Joshua Stein*, No. 1:17CV1037, 2021 WL 4193219 (M.D. N.C. Sept. 15, 2021) (providing the order adopting Magistrate Judge's Recommendation declaring that the "Settlement Provision" of North Carolina's Farm Act violates the First Amendment and First-Amendment-related protections in the Equal Protection clause of the Fourteenth Amendment to the U.S. Constitution).

232. Kuehn, *supra* note 175, at 10702.

233. 29 U.S.C. § 213(b)(12).

234. Currently, eight states offer some form of overtime pay for agricultural workers. See, e.g., *Overtime Map*, FARMWORKER JUST., <https://www.farmworkerjustice.org/overtime-map/> [<https://perma.cc/SET3-9D4V>].

235. H.R. 4002, 81st Leg. Assemb., Reg. Sess. (Or. 2022) (enacted).

236. *Id.*, at sec. 2(a)-(b).

237. David López-Carr et al., *Extreme Heat and COVID-19: A Dual Burden for Farmworkers*, 10 FRONTIERS IN PUB. HEALTH 1 (2022).

associated consequences in labor productivity, and the extent to which heat stress induced immunodeficiency might facilitate COVID-19 infection.²³⁸

IV. Agricultural exceptionalism: limiting heat standards

A health-oriented, broadly-applicable heat standard can serve to promote environmental justice for food system workers and others who must work during periods of extreme heat. However, for food system workers specifically, the undercurrent of agricultural exceptionalism that permeates environmental and employment laws limits the ability of heat-illness prevention standards and other reforms to promote more just environmental decision-making. So, while heat standards might serve to improve conditions for some workers in the near term, large scale, transformational change is needed to achieve a just food system. That change depends on our ability to undo the power of agricultural exceptionalism.

A. Agricultural exceptionalism

Agricultural exceptionalism is a belief system influencing many areas of law, including environmental law, animal law, labor and employment law, property law, and trade law.²³⁹ This belief system is rooted in a longstanding cultural view that farming is the “fundamental industry of society,”²⁴⁰ and is deserving of privileged treatment by lawmakers and regulators.

In the environmental law context, the impact of agricultural exceptionalism on just about every metric has been devastating. Intensive farming has degraded habitat, polluted surface and groundwater, depleted aquifers, and released pesticides and other chemicals into communities and the food system.²⁴¹ Over time, the consequences of legislative decisions to exclude farms and farming from federal environmental law has resulted in what Professor J.B. Ruhl describes as the “anti-law” of farms and the environment.²⁴²

238. *Id.* at 4.

239. Charlotte E. Blattner & Odile Ammann, *Agricultural Exceptionalism and Industrial Animal Food Production: Exploring the Human Rights Nexus*, 15 J. FOOD L. & POL'Y 92, 102 (2019).

240. Alexis Guild & Iris Figueroa, *The Neighbors Who Feed Us: Farmworkers and Government Policy—Challenges and Solutions*, 13 HARV. L. & POL'Y REV. 157, 159 (2018) (citing MARGARET GRAY, LABOR AND THE LOCAVORE: THE MAKING OF A COMPREHENSIVE FOOD ETHIC 21-26 (2014)), https://harvardlpr.com/wp-content/uploads/sites/20/2019/02/20180513-1_Guild-Figueroa.pdf [<https://perma.cc/SLW8-FRPX>].

241. See J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 ECOLOGY L. Q. 263, 275-92 (2000) (describing, in detail, environmental harms caused by farms and farming practices).

242. *Id.* at 267.

The extensive permeation of agricultural exceptionalism throughout federal and state laws and regulations calls for large-scale, transformational change. Many scholars have offered suggestions for reform that would remove or minimize the influence of agricultural exceptionalism from specific laws or policies, including those addressing water,²⁴³ air,²⁴⁴ immigration,²⁴⁵ labor policy,²⁴⁶ corporate social responsibility,²⁴⁷ and health care,²⁴⁸ among others. Below, I use the four aspects of environmental justice discussed above to offer additional recommendations that might improve the health and safety of food system workers.

B. Additional recommendations

First, in an effort to promote distribute justice by reducing the overall risks and burdens of a large segment of the food system, Congress should pass the Farm System Reform Act. First introduced by Senator Cory Booker in 2019, and reintroduced in 2021, the Farm System Reform Act would impose an immediate moratorium on new and expanding large CAFOs.²⁴⁹ The Act would phase out existing large CAFOs by 2040,²⁵⁰ and establishes a fund to aid in the transition of current large CAFO operators to some other form of sustainable agriculture.²⁵¹ The Act would also strengthen protections for small farms and family farmers and ranchers,²⁵² and promote accuracy and transparency in labeling.²⁵³

243. See Margot J. Pollans, *Drinking Water Protection and Agricultural Exceptionalism*, 77 OHIO ST. L.J. 1195, 1249-59 (2016) (describing suggestions made by scholars to repair environmental issues regarding water).

244. See Ryan Levandowski, *Polluting 'Til the Cows Come Home: How Agricultural Exceptionalism Allows CAFOs Free Range for Climate Harm*, 33 GEO. ENV'T. L. REV. 151, 158-160 (2020) (describing suggestions made by scholars to repair environmental issues regarding air).

245. See Guild & Figueroa, *supra* note 240, at 167-69 (describing suggestions made by scholars to repair issues regarding immigration in the agricultural industry).

246. See *id.* at 172-73 (describing recommendations made by scholars for labor policy).

247. See *id.* at 175-76 (describing recommendations made by scholars for corporate social responsibility).

248. See *id.* at 184-185 (describing recommendations made by scholars for health-care policy).

249. See Farm System Reform Act of 2021, S. 2332, 117th Cong. § 102 (as introduced by Senate, July 13, 2021), <https://www.congress.gov/117/bills/s2332/BILLS-117s2332is.pdf> [<https://perma.cc/EV48-S4CE>].

250. See *id.* § 102.

251. See *id.* § 103.

252. See *id.* § 201.

253. See *id.* § 301, 302.

According to Senator Booker, the goal of the Act is to “fix a broken system” that has allowed economic concentration to harm communities in rural America for decades.²⁵⁴ “We must immediately begin to transition to a more sustainable and humane system. An important first step is ending our reliance on huge factory farms and investing in a system that focuses on resilient and regenerative production.”²⁵⁵

Transitioning away from an intensive CAFO model of livestock raising would greatly improve farm and food system worker conditions. Fewer large CAFOs would lead to a reduced need for meatpacking facilities—consistently ranked as one of the most dangerous workplaces.²⁵⁶ The risk of exposure to harmful volatile compounds or pathogens would be reduced. Perhaps most significantly, the economic stranglehold that large agribusiness companies currently have on the farming industry might be lessened, allowing for greater market participation by farmer-owned or managed cooperative farms like the model described by Franks and Torres in Washington state.²⁵⁷

Second, as a means of promoting procedural justice, and in conjunction with phasing out large CAFOs, the Council on Environmental Quality could ensure that its NEPA regulations apply to any CAFOs and slaughterhouses seeking federal funding. By increasing the number of facilities under the purview of NEPA’s alternatives analysis and impact evaluation processes, the opportunities for potentially impacted communities to participate in environmental decision-making also increases.

In 2020, the Trump administration proposed substantial revisions to the CEQ rules, including eliminating the requirement that agencies consider cumulative impacts and exempting “farm ownership and operating loans guaranteed by the Farm Service Agency . . . and business loan guarantees by the Small Business Administration,” meaning that private agricultural entities receiving federal funding would not be subject to NEPA review. Historically, FSA had only exempted some of its loans from the NEPA process. In

254. News Release from Senator Cory Booker, *Booker Reintroduces Bill to Reform Farm System With Expanded Support From Farm, Labor, Environment, Public Health, Faith Based and Animal Welfare Groups* (July 15, 2021), available at <https://www.booker.senate.gov/news/press/booker-reintroduces-bill-to-reform-farm-system-with-expanded-support-from-farm-labor-environment-public-health-faith-based-and-animal-welfare-groups> [<https://perma.cc/P8QJ-UW2U>].

255. *Id.* at 1-2.

256. Sonia Weil, *Big-Ag Exceptionalism: Ending the Special Protection of the Agricultural Industry*, 10 DREXEL L. REV. 183, 194 (2017) (citing James I. Pearce, *A Brave New Jungle: Factory Farming and Advocacy in the Twenty-First Century*, 21 DUKE ENV'T. L. & POL'Y F. 433, 447 (2011) (noting that an Iowa study reported employees in general 9.8 injuries or illnesses per year while slaughterhouse employees experience fifty-one)).

257. Sax, *supra* note 78.

expanding the potentially-exempt loan recipients, the Trump administration would have both reduced the number of operations subject to the NEPA process, and removed the ability of private parties to try to compel sufficient NEPA review through litigation.²⁵⁸

Third, to further corrective justice, the executive and legislative branches can act to repair decades of discrimination towards Black farmers and farmworkers. Farms run by Black farmers make up less than 2 percent of all farms in the United States, down from 14 percent in 1920, due to decades of racial violence and discriminatory policies around lending and land ownership.²⁵⁹ In the Jim Crow era South, Black farmers and sharecroppers were targeted with racial violence, which spurred many Black farmers to move North.²⁶⁰ But most losses of Black-owned farmland has occurred since the 1950s.²⁶¹

Black farmers in the South have been dispossessed of their land, in part, by economic forces that have manifested elsewhere, but have experienced the distinct harm of dispossession motivated by “racism and local white power.”²⁶² “[T]he racial disparity in farm acreage increased in Mississippi from 1950 and 1964, when black farmers lost almost 800,000 acres” of farmland.²⁶³ A series of government agencies, all designed to support the country’s small farmers through lending and subsidy programs, were administered by white people who often ignored Black farmers’ requests for aid or treated them outright harshly.²⁶⁴ In 1965, the United States Commission on Civil Rights discovered dramatic differences in the level of federal support given to white-owned farms and Black-owned farms. “[I]n a sample of counties across the South, the [Farmers’ Home Administration (FmHA)] provided much larger loans to small and medium-sized white-owned farms, relative to net worth,” than for Black-owned farms of a similar size.²⁶⁵ Another

258. See, e.g., *Buffalo River Watershed All. v. Dep’t of Agric.*, No. 4:13-cv-450, 2014 WL 6837005 at *4 (E.D. Ark. Dec. 2, 2014) (concluding that FSA arbitrarily determined that hog CAFO would have no significant impact on the environment).

259. Hiroko Tabuchi & Nadja Popovich, *Two Biden Priorities, Climate and Inequality, Meet on Black-Owned Farms*, N.Y. TIMES (Feb. 18, 2021), <https://www.nytimes.com/2021/01/31/climate/black-farmers-discrimination-agriculture.html> [https://perma.cc/FUT9-C6YY].

260. *Id.*

261. Vann R. Newkirk II, *The Great Land Robbery: The Shameful Story of how 1 Million Black Families have been Ripped from their Farms*, THE ATLANTIC (Sept. 29, 2019, 2:15 PM), <https://www.theatlantic.com/magazine/archive/2019/09/this-land-was-our-land/594742/> [https://perma.cc/26KH-7DX5].

262. *Id.*

263. *Id.*

264. *Id.*

265. *Id.*

investigation found evidence of exploitation through private lending, a source of funding Black farmers often turned to when banks refused to loan them money.²⁶⁶ Private lenders would require land to be put up as collateral for equipment loans, and when the FmHA dragged its feet in approving a separate loan, the farmer would default on the equipment loan and lose land to the private lender.²⁶⁷

Consistent with examples discussed earlier, what is notable is that much of the land loss appears to have taken place through *legal* mechanisms; the sales and foreclosures forcing Black farmers to relinquish their land were not technically violations of law. Yet, it is clear that the dispossession was not an unintended consequence. To remedy this legacy of racism and wrongdoing, President Biden has committed to take steps to improve Black farmers' access to land, loans, and other assistance.²⁶⁸

Finally, as a means of promoting social justice, farmworkers should receive overtime pay. Like the heat illness prevention standard, no such requirement exists at the federal level. Farmworkers were excluded from overtime requirements in the 1938 Fair Labor Standards Act. Scholars have described the exclusion of farmworkers and domestic workers from minimum wage and overtime requirements as seemingly race-neutral attempts to preserve a racist practice.²⁶⁹ In March, Oregon became just the eighth state to require overtime pay for agricultural workers.

A commonly-raised concern is that employers could simply reduce worker hours or switch to a more mechanized system; indeed, the Oregon Farm Bureau threatened as much when the legislature was considering approving overtime pay requirements in the state.²⁷⁰ One response would be to do what Oregon did, and create a refundable tax credit to employers who provide overtime pay for workers, and to phase in the overtime pay requirement gradually, so that employers have time to prepare and adjust.

Ideally, in a new environmentally-just economy, more farmer-run co-operatives will exist, along with farms run by people of color and people from lower-income communities who are committed to principles of environmental justice and just transition, who would prioritize livable wages. If the farming model is more localized, farmer-driven, and designed with the

266. *Id.*

267. *Id.*

268. Tabuchi & Popovich, *supra* note 259.

269. See Juan F. Perea, *The Echoes of Slavery: Recognizing the Racist Origins of the Agricultural and Domestic Worker Exclusion from the National Labor Relations Act*, 72 OHIO ST. L. J. 95, 96 (2011).

270. Andrew Selsky, *Oregon Legislature Approves Overtime Pay for Farmworkers*, AP NEWS (Mar. 3, 2022), <https://apnews.com/article/business-oregon-california-legislature-washington-1e445dd4d966d2ae75115a0422d5ac87> [<https://perma.cc/6PYF-K3RQ>].

explicit goal of elevating worker health and safety as a priority, overtime pay might even become something of a relic. In the meantime, it would provide an important economic benefit for a group that historically has been exploited and undervalued.

CONCLUSION

The urgency and extent of the climate crisis demands bold, protective responses. Extreme heat is one aspect of the climate crisis that is likely to persist, and disproportionately impacts farmworkers and food system workers. The adoption of protective state and federal heat standards will buy us time, but standing alone, those rules are not sufficient to ensure that food system workers are truly experiencing “justice” in the workplace. As we work toward a more just food system, we must be willing to undertake large-scale, transformative action that uncouples our system of law from the myth of agricultural exceptionalism.