9-26-2024

Environmental Justice and Social Work: A Study Across Practice Settings in Three U.S. States

Lisa Reyes Mason

Sierra Roach Coye

Smitha Rao

Amy Krings

Julia Santucci

Environmental Justice and Social Work: A Study Across Practice Settings in Three U.S. States

sustainability

MDPI

Article

Environmental Justice and Social Work: A Study across Practice Settings in Three U.S. States

Lisa Reyes Mason [1,*], Sierra Roach Coye [1], Smitha Rao [2], Amy Krings [2] and Julia Santucci [3]

[1] Graduate School of Social Work, University of Denver, Denver, CO 80210, USA; sierra.coye@du.edu
[2] College of Social Work, The Ohio State University, Columbus, OH 43210, USA; rao.506@osu.edu (S.R.); krings.7@osu.edu (A.K.)
[3] Independent Researcher, Chicago, IL 60618, USA; julia.mary.santucci@gmail.com
* Correspondence: lisareyes.mason@du.edu

Abstract: Environmental justice is essential for improved quality of life and sustainable wellbeing. This study examines how environmental issues and related injustices are surfacing in U.S. social work practice and social work readiness to respond, and what resources social workers are most interested in. Data are from an online survey of U.S. social workers (N = 337) in Colorado, Ohio, and Tennessee. Participants answered questions about their social work background, current job, environmental issues in practice, resources, and demographics. Data were analyzed with descriptive statistics. For nine issues, at least 30% of participants reported these as surfacing sometimes or often, with the highest being poor food access (74.7%), extreme cold (58.8%), and poor green space access (43.9%). The extent varied by years of experience, job setting, and practice level. Meanwhile, fewer than 40% of social workers indicated that they were somewhat or very prepared to respond to eight out of nine issues. Interest was higher in the resources that could be used for responding to specific topics rather than environmental justice broadly. In addition to strengthening social work education regarding environmental justice, this study suggests that national, state, and local social work associations can—in partnership with growing numbers of social work scholars working on environmental justice—create and provide training, templates, and guidance for practitioners that are tailored to specific environmental justice issues.

Keywords: climate change; cold; environmental justice; food insecurity; green space; health; heat; social work practice; sustainability; weather extremes

Citation: Mason, L.R.; Coye, S.R.; Rao, S.; Krings, A.; Santucci, J. Environmental Justice and Social Work: A Study across Practice Settings in Three U.S. States. *Sustainability* **2024**, *16*, 8361. https://doi.org/10.3390/su16198361

Academic Editor: Tim Gray

Received: 29 August 2024
Revised: 20 September 2024
Accepted: 24 September 2024
Published: 26 September 2024

1. Introduction

Environmental justice is the philosophy that all peoples and communities are entitled to equal protection under environmental health laws and regulations [1]. Meanwhile, environmental injustice is the disproportionate and unfair distribution of environment-related harms and unhealthy conditions. Both are social justice issues that social work must address for improved quality of life and sustainable wellbeing, especially for the minoritized communities whom social workers tend to serve, and to move towards the creation of a healthy and regenerative world [2–7].

Social and health impact research finds that low-income persons and people of color are disproportionately exposed to pollution, contamination, toxic waste, and other forms of environmental degradation [8,9]. They are also less likely to have access to environmental amenities, such as parks, tree cover, and green spaces [10]. In the United States, for example, 68% of racially marginalized people live in nature-deprived areas [11]. During extreme heat, people with lower incomes sometimes forego air conditioning because they cannot afford higher utility bills [12,13]. Children, older adults, and people with chronic health conditions are at greater risk to the health effects of outdoor air pollution [14]. Also, as climate change increases the likelihood of weather extremes in many areas, it is historically redlined

communities in the U.S. that are often at the greatest risk, due to decades of disinvestment in green space and tree cover and also due to public policies that built concrete and asphalt structures and highways through or surrounding already marginalized communities [15]. In these ways and others, environmental injustices can reinforce or exacerbate existing social, racial, economic, and health disparities.

Social workers, traditionally concerned with the promotion of human rights and social justice, are primed to be strong partners in responding to environmental injustice and supporting environmental justice movements [16,17], from helping clients cope with the impacts of environmental inequities to partnering with communities and advocating for policy change [18,19]. Over the past decade, national social work organizations in the United States have increased their attention on environmental issues. The Council on Social Work Education (CSWE) included environmental justice for the first time in its 2015 competencies for social work education. In 2016, the American Academy of Social Work and Social Welfare included "Create Social Responses to a Changing Environment" as a Grand Challenge for Social Work. CSWE [20] published its Environmental Justice Curricular Guide in 2020, and the National Association of Social Workers (NASW) included recommendations for environmental and climate justice in its 2021 Blueprint of Federal Social Policy Priorities [21].

Meanwhile, little is still known about how social workers experience or respond to environmental issues and related injustices in their professional practice. Through a survey of social workers in three U.S. states—selected for their demographic, climate, and political characteristics—this study aims to understand the experiences and needs of social workers as related to environmental justice in an array of practice settings. Through this inquiry, this study aims to advance how the profession can better reach social workers with the knowledge, skills, and resources to advance environmental justice, ultimately reducing associated health, mental health, and other disparities.

1.1. Social Work Research on Environmental Issues

Social work research related to environmental issues has increased over the past decade and has often focused on describing problems, documenting disparities, or examining topics such as specific disaster events, food or water insecurity, natural resources, or the transition away from fossil fuel dependency [4,22–25]. Another research focus has been the integration of environmental topics in social work education [26], with scholars examining student perceptions of environmental issues (e.g., [27]), the extent of faculty inclusion of environmental justice in their teaching (e.g., [28]), or environment-related teaching strategies or activities (e.g., [29]).

Yet, clear explications of how environmental issues are arising in social work practice across an array of practice settings are rare, even though social workers are often first responders in disaster-related crises (e.g., [30]) or are engaged in community-level initiatives that may intersect with the natural or built environment (e.g., [31]). Of note, two recent exceptions to this, both outside the U.S., are national surveys in Finland [32] and Australia [33], which include some aspects of how environmental issues are impacting clients or how human service professionals (including social workers) are responding.

As a professional discipline, social work scholarship must be practice informed and seek to inform practice through concrete application so that social work practice continues to develop and improve. With the extent and impact of environmental injustices sharply on the rise, particularly amidst the global climate crisis, the need for practice-relevant research on this issue is critical so that social workers can directly support clients and communities experiencing environment-related harms and mobilize and act for environmental justice.

In reviewing the literature, we found only three surveys of U.S. social workers and one survey of U.S. counseling professionals, which included licensed social workers, about this topic that were conducted in a way that sought more generalized information about practice (i.e., in lieu of case studies of specific disaster events, environmental crises, or experiences in a single population or community). All four studies were published between

2013 and 2023, and the first three focused on social workers in a single state, and none differentiated among practice types or settings.

In the first study, Shaw [34] surveyed NASW members in California (N = 373) and found that over 90% incorporated the natural environment into client assessments, although about two-thirds did not assess for dangerous chemicals in the home, accessibility to clean water, or proximity to pollution sites. Shaw [34] also found that respondents tended to be environmentally friendly and supportive of environmental topics being incorporated into social work training, although they also tended not to be involved in environmental justice activism.

In an unidentified midwestern state, Nesmith and Smyth [35] surveyed state-licensed social workers (N = 373), with 71% reporting that they had at least one client experiencing an environmental injustice issue. Commonly reported hazards included food deserts, lack of safe outdoor spaces for children, lead poisoning, air pollution, and extreme weather [35]. The authors also found that respondents agreed that environmental justice is important to the profession, while also experiencing frustration that environmental issues affected their clients' access to basic needs and fostered feelings of powerlessness to affect change. Respondent recommendations for social work practitioners included raising awareness and pursuing community organizing and advocacy [35].

In a study of social workers in Alaska (N = 159), Allen [36] found that 69% of respondents perceive climate change as a "medium or large" threat to their clients and constituents, and 60% reported "few or some" clients discussing issues related to climate change. Other environmental issues reported by social workers in the study included food insecurity, extreme weather (e.g., wildfires, erosion, and floods), and community infrastructure problems such as transportation delays, road damage, loss of electric power, and damage to homes due to environmental hazards. Allen [36] also found linkages among environmental issues, cultural loss, and mental or behavioral health concerns such as anxiety, depression, posttraumatic stress disorder, alcohol misuse, and suicidal ideation, especially among Alaskan Native peoples.

Finally, in a four-state study of counseling professionals, including licensed social workers, Reese et al. [37] found that 5% of respondents had climate-related training, less than 10% had educational resources on climate change to use in practice, and 46% did not feel competent to respond to climate issues in counseling. Meanwhile, 79% of respondents wanted additional research on mental health impacts of the climate crisis, and 76% expressed interest in fact sheets on the topic [37].

Taken together, these studies suggest that the interest in and need for practice-relevant tools related to environmental issues among social workers may be high, and concrete knowledge, engagement, or readiness to intervene is likely low [34–37]. Given that the three studies exclusive to social work focused on single states (Alaska, California, and an unnamed Midwestern state), we expanded the sampling approach of the present study to three states (Colorado, Ohio, and Tennessee) to capture a broader array of social workers and used recruitment methods intended to capture the experiences and needs of social workers in a variety of practice settings and types so that similarities or differences by practice characteristics could be explored.

1.2. Study Purpose and Questions

The reach of environmental crises and their impacts are on the rise, and while social work research and education related to this has increased, there is a need to understand the scope of environmental issues in current social work practice to inform new ways of reaching social work practitioners with the information they need to respond effectively. To date, research on this intersection has been limited, and, when conducted, study samples have tended to be from a single U.S. state at a time and have focused on social workers as a single group without examining how responses may vary by aspects of practice setting or type. Through a study of social workers across an array of practice settings in three U.S. states, this study addresses the following research questions:

1. To what extent and in what ways do social workers perceive that environmental issues are surfacing in social work practice?
2. To what extent do social workers feel prepared to respond to environmental issues in their practice, and what actions have they taken?
3. What resources or training related to environmental issues are practicing social workers interested in?

2. Materials and Methods

2.1. Sampling and Recruitment

Data are from online surveys completed by U.S. social workers living in Colorado, Ohio, and Tennessee from January to April 2023. States were selected for the range of their demographic, climate, and political characteristics, and to leverage the study authors' pre-existing relationships and networks in these states. While the population in each state is predominately White (ranging from 67% to 73%), Colorado has a relatively higher Hispanic or Latino population (22.5%) compared to 4.5% in Ohio and 6.4% in Tennessee. Meanwhile, the latter two states have a relatively higher population of Black or African American residents at 13.3% and 16.7%, respectively, compared to 4.7% in Colorado [38]. On other demographic measures, Colorado has a lower poverty rate (9.3%) and higher bachelor's degree completion rate (43.7%, of people 25 years and older), compared to both Ohio (13.3% and 30.4%, respectively) and Tennessee (14.0% and 29.7%, respectively) [38]. Concerning climate, Colorado is in the desert-like Southwest climate region, while Ohio and Tennessee are in the Ohio Valley climate region with humid summers and cool winters [39]. Politically, Colorado is commonly considered a "blue" state (i.e., Democrat-leaning), Ohio a "swing" state (i.e., Democrat- or Republican-leaning), and Tennessee a "red" state (i.e., Republican-leaning), although Colorado and Ohio also tend to have voters more evenly split among Democrat or Republican party affiliation, while Tennessee voters are more likely to affiliate as Republican [40].

To reach prospective participants, we contacted state- and/or regional-level chapters of social work associations (e.g., NASW, clinical social work societies, school social work associations, health social work associations) and CSWE-accredited social work programs in each state, requesting that they forward the study recruitment email to their members (in the case of associations) or alumni and/or field education liaisons (in the case of social work programs).

The survey took approximately 15 to 20 min to complete, and participants had the option of being entered for a chance to receive one of ten USD 100 Amazon e-gift cards. Study eligibility included being at least 18 years of age, being currently employed in the U.S., having at least one academic degree in social work at the bachelor's level or higher, and that the individual considers themselves a "practicing social worker" regardless of job title, setting, or field of work.

We received a total of 606 survey responses. After removing respondents who did not live in Colorado, Ohio, or Tennessee (n = 164), suspected "spam" responses (n = 102), and duplicate responses (n = 3), the final sample included 337 participants: 124 (36.8%) in Colorado, 137 (40.7%) in Ohio, and 76 (22.6%) in Tennessee. The University of Denver Institutional Review Board approved this study.

2.2. Measures and Analyses

The survey asked 38 questions in the following order and categories: social work background, current social work practice, the concept of environmental justice (respondent familiarity with and perceptions of environmental justice), environmental issues and social work practice (focusing on how environmental issues were surfacing in their practice), and demographics. The measures analyzed in this study are described below.

2.2.1. Demographic Variables

We asked participants about their gender (cisgender man, cisgender woman, trans man/masculine, trans woman/feminine, non-binary/non-conforming, prefer not to respond), age (years), race or ethnicity (categorized into Asian, Pacific Islander, or Desi American; Black or African American; Hispanic or Latino; Native American or Indigenous; White; some other identity; multiracial; prefer not to respond), social work degree(s) (categorized into highest level: BSW, MSW, DSW, or PhD), and political identity (scaled from 1 = Left to 7 = Right).

2.2.2. Current Social Work Practice

We asked participants for the years worked at their current job (<1 year, 1–2 years, 3–5 years, 5–10 years, >10 years), organization type (private practice, social service agency, medical office or hospital, nonprofit organization, government agency, elementary/middle/high school, college or university, or other), and job setting (rural, suburban, urban). We also asked two questions for which participants could "select all that apply": (1) if their current job was best described as micro-, mezzo-, or macro-practice (categorized into micro, micro-mezzo, mezzo, and macro, where macro included participants selecting macro only or macro and other levels), and (2) which areas of practice best described their current job (16 options provided plus "other area(s)"; e.g., aging services, child welfare, healthcare, substance use, youth development, etc.).

2.2.3. Environmental Issues in Social Work Practice and Preparedness to Respond

We asked participants how often each of the following nine environmental issues surfaced in their social work practice (never, rarely, sometimes, or often): air pollution; unsafe drinking water; poor access to local, fresh foods; poor access to green space (e.g., parks, gardens, tree cover, etc.); living near toxic sites (e.g., landfills, refineries, industrial areas, etc.); extreme heat waves or heat events; extreme cold, snow or ice events; flooding or heavier rainfall than usual; and climate change. We also asked, via open-ended response, for participants to describe (1) some of the ways the above issues had shown up in practice, if at all; (2) some of the ways the above issues related to aspects of clients' lives, if at all (e.g., mental health, physical health, social support, housing, financial wellbeing); and (3) what responses or actions the participant took, if any. Next, for each of the nine environmental issues, we asked participants to what extent they felt prepared to respond to the issue in their social work practice (not at all, a little, somewhat, or very).

2.2.4. Interest in Resources

We asked participants their degree of interest (not, somewhat, or very interested) in the following resources: continuing education units (CEUs) on environmental justice generally, CEUs on how to respond to specific environmental justice issues or their impacts, templates for client or community education on specific environmental justice issues or their impacts, guidance on how to make organization more responsive to environmental justice issues, policy statements on environmental justice topics by professional social work associations, action alerts on how to get involved with community organizing efforts, and action alerts on when and how to advocate with policymakers on environmental justice topics.

2.2.5. Analyses

We conducted univariate and bivariate descriptive statistics with Stata version 17. We present results for the overall sample and, for the first two research questions, by select practice setting characteristics.

3. Results

3.1. Sample Characteristics

Participant demographic characteristics are presented in Table 1. Overall, respondents represented nearly all genders, a range of ages, a variety of racial or ethnic identities, all levels of social work education, and a range of political identifications. Meanwhile, the typical participant was a cisgender woman, 43 years old, White, with an MSW degree, and politically "left" leaning (e.g., Democrat or progressive).

Table 1. Participant characteristics (n = 337).

Characteristic	Mean (Std. Deviation)	%
Gender		
Cisgender woman		77.5
Cisgender man		9.3
Trans woman/feminine		0.0
Trans man/masculine		0.6
Non-binary		2.7
Other identity		3.0
More than one gender		0.6
Prefer not to respond		6.3
Age (years)	42.9 (12.4)	
Race or ethnicity		
APIDA [a]		1.2
Black or African American		7.1
Hispanic or Latino		4.2
Native American or Indigenous		0.3
White		79.5
Other identity		0.9
Multiracial		4.5
Prefer not to respond		2.4
Social work degree, highest		
BSW		8.6
MSW		88.1
DSW		2.7
PhD		0.6
Political identity (1 to 7)	2.6 (1.4)	

[a] APIDA = Asian, Pacific Islander, or Desi American.

Characteristics of participants' current practice are presented in Table 2. Nearly half of participants had worked from 3 to 5 years (25.2%) or from 5 to 10 years (20.5%) at their current job, followed by 19.6% having worked less than 1 year at the job. The most common organization types were nonprofit (24.9%), medical office or hospital (22.6%), and private practice (17.2%). Jobs were primarily urban (52.5%) and were at the micro level of practice (62.3%). All areas of practice that were asked about on the survey were represented among participants, with the most common being mental health (58.8%), case management (26.7%), and healthcare (24.0%); the least common were economic development (2.1%) and environmental justice (1.8%).

Table 2. Practice characteristics (N = 337).

Characteristic	%
Years at current job	
<1	19.6
1 to 2	16.3
3 to 5	25.2
5 to 10	20.5
>10	18.4

Table 2. *Cont.*

Characteristic	%
Organization type	
College or university	9.8
Elementary, middle, or high school	7.1
Government agency	7.4
Medical office or hospital	22.6
Nonprofit organization	24.9
Private practice	17.2
Social service agency	6.8
Other	4.2
Job setting	
Rural	16.1
Suburban	31.3
Urban	52.5
Level(s) of practice	
Micro	62.3
Micro-mezzo	11.6
Mezzo	12.2
Macro	13.9
Areas(s) of practice [a]	
Aging services	12.2
Case management	26.7
Child welfare	12.2
Community organizing or development	10.1
Criminal justice	6.2
Economic development	2.1
Environmental justice	1.8
Health care	24.0
LGBTQ+ services	13.9
Medical social work	21.7
Mental health	58.8
Policy practice and advocacy	8.9
Poverty reduction	5.6
School social work	11.6
Substance use	18.7
Youth development	16.0
Other	16.0

[a] Sum is >100.0%; participants could select more than one response.

3.2. Extent of Environmental Issues in Social Work Practice

Across the nine environmental issues included in this study, each was reported by at least 30% of participants as surfacing sometimes or often in practice, with the most frequently reported being poor access to local foods (74.7%), extreme cold, snow, or ice (58.8%), and extreme heat waves or heat events (44.3%) (Figure 1a). Examples of how each issue surfaced in social work practice or how participants described them relating to clients' lives are provided in Table 3. In addition, Supplemental Online Materials (Tables S1 and S2) describe the extent in practice of each issue by organizational type (e.g., government agency, private practice, etc.) and area of practice (e.g., child welfare, case management, mental health, etc.).

For most environmental issues, social workers with more years of experience at their job tended to report the issue sometimes or often more frequently than those with fewer years of experience (Figure 1b). For example, air pollution was reported in this way by 43.5% of social workers with over ten years' experience compared to 26.7% of those with two or fewer years' experience.

Table 3. Examples of environmental justice issues surfacing in practice or relating to clients' lives.

Issue	Surfacing in Practice	Relating to Clients' Lives
Air pollution	"Exacerbation of COPD, asthma. . .due to environmental factors (. . .living near highways, oil refineries, and marijuana grow houses)." *Urban, medical office or hospital*	"Our office is located in a rural setting with factories, large scale beef plants, there is a lot of pollution." *Rural, nonprofit organization*
Climate change	"A lot of the youth I work with are feeling very hopeless about their future. They have been told their whole lives that climate change will ensure that the earth won't be habitable for them and their future children. This make depression and panic and anxiety about climate change a big focus of my work." *Urban, nonprofit organization*	"This section of the Appalachian region has historically enjoyed moderate weather. . . Over the past six years I have witnessed the increased need for heat and cooling sources for below poverty households with elderly and disabled individuals. . . A majority of those households are at imminent risk of losing their housing as disruption of service would violate their lease." *Suburban, nonprofit organization*
Extreme cold	"Ice and snow in the winter, the weather or road conditions sometimes cause delays or cancellations to appointments." *Suburban, private practice*	"Sense of health safety and well-being negatively impacted when you can't find adequate shelter. . .People experiencing homelessness may cope with extreme temps and discomfort outdoors by using substances—impacting mental and physical health." *Urban, government agency*
Extreme heat	"This past summer an entire nursing facility had to be shut down and all of the patients moved to different locations due to extreme heat and power outages due to the heat. The facility in question was in a poorer neighborhood and could not afford any backup power source." *Suburban, medical office or hospital*	"Many of my client's report feeling isolated in the summer from having to stay in so much. It is important for clients to receive vitamin D from sunlight, which can boost overall mood and wellness." *Suburban, private practice*
Flooding or heavy rain	"Many clients report trauma associated with local flooding events in the last two decades." *Rural, social service agency*	"Floods and wildfires recently have impacted patient's housing security and finances with displacement or ruin." *Urban, medical office or hospital*
Green space, poor access	"Accessibility to green spaces have shown up in practice when considering a families ability to have parenting time in a public space." *Urban, nonprofit organization*	"The inaccessibility to parks/recreation areas limits client's ability to be active and get outside which is resulting in negative effects on both physical and mental health." *Urban, nonprofit organization*
Local food, poor access	"As a program that offers housing to young moms, we are located in an area that is a food desert and is hard for them to do their grocery shopping." *Urban, nonprofit organization*	"Many families have restricted diets due to illnesses. Student attendance is impacted when they and their caregivers can't eat healthy." *Suburban, elementary, middle, or high school*
Toxic sites	". . . we are seeing the highest rates of cancer in Williams County and some are questioning whether it's due to all of the factories and landfill nearby." *Rural, nonprofit organization*	"Affordable housing is often located in extremely polluted areas/near former superfund sites." *Urban, college or university*
Unsafe water	"In the rural area I work sometimes there is student whose families have issues accessing clean water due to well issues and inability to get city water, lack the financial resources to fix the issue with the well and afford bottled water." *Rural, elementary, middle, or high school*	"I see increased anxiety due to environmental issues, but I also see a lot of denial about the fragility and volatility of the environment. I have clients who live in a part of town where PSA chemicals have damaged the water table. They seem either not aware or concerned about it." *Suburban, nonprofit organization*

Note. Responses are provided as written by participants, unedited by the author team. The job setting and organization type of the participant are provided in italics.

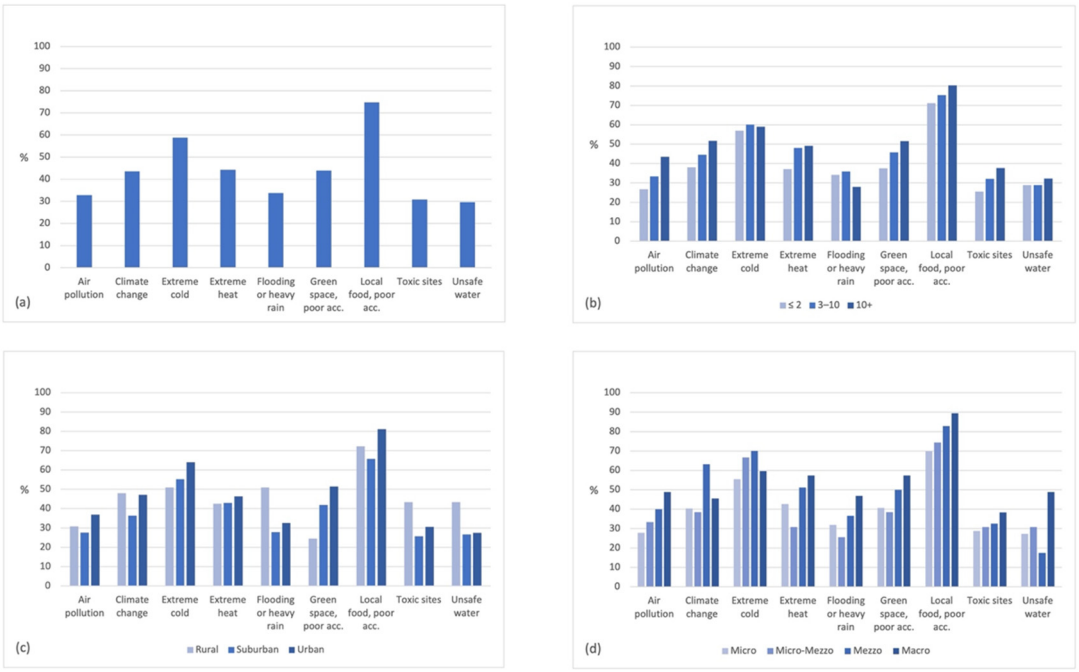

Figure 1. Extent in practice (% responding *sometimes* or *often*). (**a**) All participants, (**b**) by years at job, (**c**) by job setting, (**d**) by level of practice.

By job setting (rural, suburban, or urban), patterns varied by environmental issue. In some cases (e.g., flooding or heavy rainfall, living near toxic sites, unsafe drinking water), a higher percentage of rural social workers reported these issues as showing up sometimes or often compared to either suburban or urban social workers (Figure 1c). In other cases (e.g., extreme cold, snow or ice; poor access to green space), reports of extent were highest among urban social workers, while in others (e.g., extreme heat waves or heat events), no notable differences were found.

By level of practice (micro, micro-mezzo, mezzo, or macro), there was a nearly consistent finding across issues that social workers engaged in micro-level practice reported lower extents of issues showing up in practice, compared to respondents working at other levels of practice (Figure 1d). For most issues (seven out of nine), macro-level practitioners reported the highest extents. For example, unsafe drinking water was reported as showing up sometimes or often by 27.3%, 30.8%, 17.5%, and 48.9% of micro-, micro-mezzo-, mezzo-, and macro-level practitioners, respectively. Meanwhile, climate change was a noted exception to the overall pattern, as mezzo practitioners reported sometimes or often at the highest rate (63.2%) compared to 45.5% or less for the three other groups.

3.3. Social Worker Preparedness to Respond and Actions Taken

For each environmental issue in this study, except for poor access to local foods, no more than 40% of participants reported that they felt somewhat or very prepared to respond to the issue in practice (Figure 2a). These rates reached as low as 12.5% for living near toxic sites, 17.2% for air pollution, and 21.9% for climate change. For cases in which practitioners did respond or take action, examples are provided in Table 4 for each issue. Similar to Tables S1 and S2, the Supplemental Online Materials (Tables S3 and S4) describe preparedness to respond to each issue by organizational type and area of practice.

Table 4. Examples of participant response or action taken.

Issue	Response or Action Taken
Air pollution	"The university that I work at has hosted several town hall meetings and have been actively involved with local and federal governments. As a result, the landfill has been closed and steps are being taken to mitigate the negative health effects due to gas emission." *Rural, college or university.*
Climate change	"Validating concerns and discussing what parts of the concern are in their control." *Suburban, private practice.*
Extreme cold	"Refer patients to community organizations that can assist with utilities and/or in providing/repairing HVAC services. Applying for financial assistance for patients, as appropriate." *Urban, medical office or hospital.*
Extreme heat	"I find the cooling centers and safe places for my clients to access air conditioning during hot and cold times." *Urban, government agency.*
Flooding or heavy rain	"We can often provide some replacement items such as clothes if a home is flooded, destroyed and can provide transportation if needed also. But we are a small agency without adequate staff numbers/funding to do much in terms of the bigger picture problems." *Rural, social services agency.*
Green space, poor access	"We have supported local domestic violence programs to work with parks and recreation folks locally to create more spaces that families can enjoy together." *Urban, other organization (statewide coalition).*
Local food, poor access	"We partner with another non-profit that donates food to our residents and delivers the food directly to the house so our moms don't have to worry about transportation." *Urban, nonprofit organization.*
Toxic sites	"I have been working individually with students on my college campus that live in and around the train derailment site to address the increased rates of anxiety and depression surrounding the train derailment. I have signed many petitions and submitted letters to multiple Congress people and other leaders urging lawmakers and other people in positions of power to protect the community surrounding the train derailment at all costs. I have worked with the emergency response team on our college campus to spread awareness about safety and resources available." *Rural, college or university.*
Unsafe water	"The organization recently had a presentation for all staff and residents on the problems of microplastics impacting our bodies, food and water. There has been an organizational effort to reduce single use plastics in our healthcare facility and increase recycling." *Suburban, nonprofit organization.*

Note. Responses are provided as written by participants, unedited by the author team. The job setting and organization type of the participant are provided in italics.

In general, feelings of preparation tended to improve somewhat with years of experience at the job (Figure 2b). For example, whereas 18.6% of participants with two years or less at their job felt somewhat or very prepared to respond to climate change in their practice, this increased to 24.2% among participants with over 10 years' experience at their job. Similarly, for extreme heat waves or heat events, this increased from 24.8% to 35.5%, respectively.

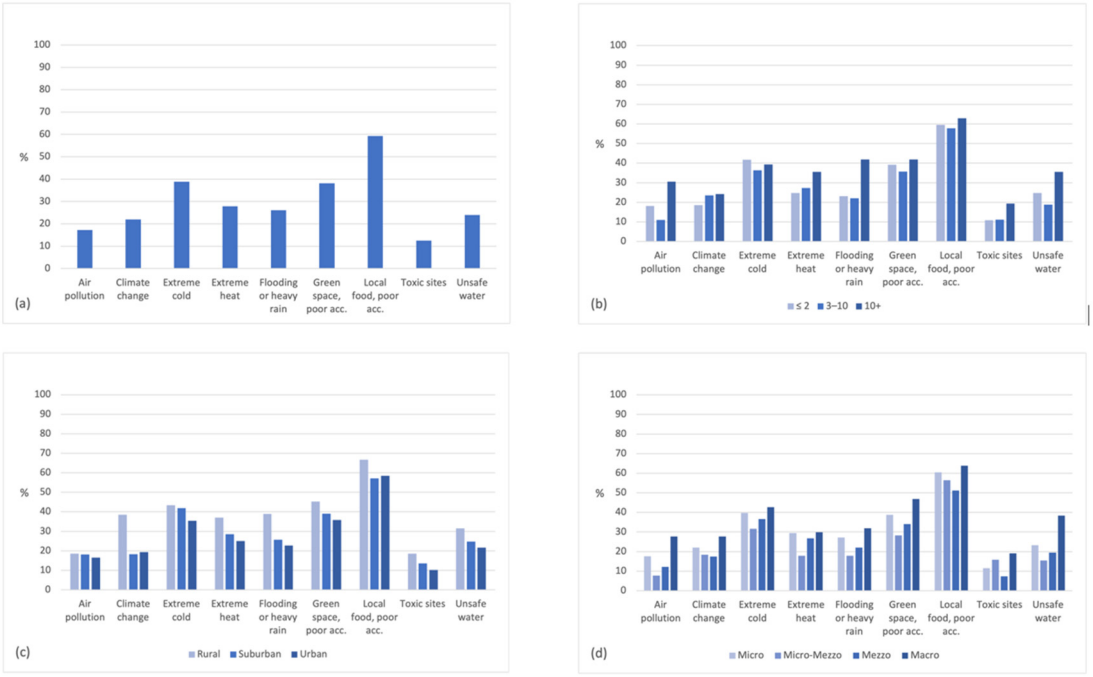

Figure 2. Preparedness to respond (% responding *somewhat* or *very*). (**a**) All participants, (**b**) by years at job, (**c**) by job setting, (**d**) by level of practice.

Considering job setting, rural social workers consistently reported feeling more prepared to respond than suburban or urban social workers, as a group (Figure 2c). For example, while 38.9% of rural participants felt somewhat or very prepared to respond to flooding or heavy rainfall, this decreased to 25.7% and 22.7% of suburban and urban participants, respectively. Feelings of preparation were more similar among suburban and urban social workers, with some variation by issue for which group felt more prepared.

For most issues, micro-mezzo- or mezzo-level practitioners reported the lowest feelings of preparation, while macro-level practitioners consistently had relatively greater feelings of preparation than other groups (Figure 2d). For example, rates of reporting feeling somewhat or very prepared to respond to air pollution were 17.6% (micro), 7.7% (micro-mezzo), 12.2% (mezzo), and 27.7% (macro).

3.4. Interest in Resources and Training

Interest in resources was generally high across the sample and across type of resource (Table 5). At least 85% of participants expressed that they were somewhat or very interested in each of the resources that was asked about. Compared to education about environmental justice generally (44.9% very interested), there was a higher degree of interest in information about how to respond to specific environmental justice issues or their impacts (60.8%).

Table 5. Level of interest in resources (N = 337).

Resource	Not (%)	Somewhat (%)	Very (%)
CEUs on EJ generally	6.9	44.2	44.9
CEUs on how to respond to specific EJ issues or impacts	5.7	33.5	60.8
Templates for client/comm. education specific EJ issues	9.9	38.8	51.3
Guidance on organizational change	12.5	36.4	51.1
Policy statements on EJ topics by SW associations	14.3	43.8	42.0
Action alerts on community organizing efforts	12.5	41.7	45.8
Action alerts on advocating with policymakers	13.1	42.1	44.8

Note. CEUs = continuing education units. EJ = environmental justice. Comm. = community. SW = social work.

3.5. Study Strengths and Limitations

Study strengths include sampling in three U.S. states and across an array of practice types and settings, plus offering novel insights into social work practice needs and professional preparation around issues of environmental justice. Nevertheless, findings should be interpreted cautiously, as data were not collected to be generalizable to the selected or other states or to type of social worker or practice setting. In addition, it may be that responses were influenced by recent weather, climate, or environmental disasters in each state; for example, in Ohio, the East Palestine train derailment and related chemical pollution occurred in February 2023 during data collection for this study. Furthermore, the survey captures participant perceptions of whether environmental issues are surfacing in their practice, not the actual extent to which clients are presenting or experiencing the issues. Finally, many of the environmental issues in this study are matters of environmental injustice due to their multiple overlapping origins in structural inequities and marginalization—that is, they are not solely environmental issues, but social, economic, and political ones as well. Although unpacking the complexity of each issue is beyond the scope of this study, social workers engaged in future research and practice in this area should aim to understand these overlapping origins and causes, especially as pathways beyond the curricular and training opportunities discussed below are identified and pursued.

4. Discussion

This study finds that environmental issues are surfacing across an array of social work practice settings, yet most study participants feel little prepared to respond. While there are some areas in which social workers have more extensive histories of practice (e.g., addressing food insecurity, [41]) and may thus feel more prepared, there are issues that may be "newer" to social work intervention (e.g., climate change, [24]; toxic sites, [42]), and thus readiness to respond may be less.

One explanation for this difference may be that social workers in the U.S. have long understood issues such as food insecurity as primarily a matter of economic injustice and have worked to address it through improved access, especially in emergency situations [41]. Community-based responses that incorporate the natural environment (e.g., small-scale production in low-income communities [43]) are relatively more recent in social work research and practice. Meanwhile, even though other issues such as climate change and toxic sites are not solely environmental in nature (i.e., human behavior, corporate practices, and policies at all scales are also relevant), they may be perceived as less "local," more complex to address, and requiring formal environmental knowledge that social workers may not have.

In the remainder of this section, we identify implications that follow from the study results to improve social work readiness and ability to respond to environmental issues in practice.

4.1. Assess Curricular Implementation of Environmental Justice Competencies

The finding, across most environmental issues, that social workers with fewer years at their job are less likely to report issues as coming up in practice—and are also more likely to feel unprepared—was surprising to the study team, given changes in CSWE competencies for environmental justice, and raises questions about whether and how these competencies are being implemented in social work curricula. Of note, post hoc analyses find that respondents with fewer years at their current job also have less social work experience overall (e.g., an average of 9.1 versus 26.4 years, for those with fewer than two versus more than ten years at their job, respectively), and thus would be relatively more recent graduates of social work programs.

While it has been nearly ten years since environmental justice was first included in CSWE competencies, and four years since publication of the Curricular Guide for Environmental Justice [20], it is unknown whether social work programs have addressed this competency by adding an overview of environmental injustice to an introductory social work course, for example, or whether the concept, examples, and intervention strategies have been infused more broadly across the curriculum. Thus, new social work research on how, and since when, environmental justice is being taught across social work programs could yield additional insights to improve social work training and preparation before new social workers enter practice.

4.2. Value and Share Practice Experience and Wisdom across Practice Settings

While climate and environmental justice in rural social work settings have received relatively less scholarly attention than in urban ones (e.g., [44]), it is noteworthy that there are some issues in this study—such as climate change, flooding or heavy rainfall, living near toxic sites, and unsafe drinking water—for which rural respondents report higher rates of the issue surfacing in practice and their feeling prepared to respond than suburban or urban respondents. Thus, there may be practice wisdom and experience among rural social workers that, if explored in greater depth through new research and shared with social workers in other settings, could inform a social work response across contexts via case studies, strategies, or lessons learned.

Meanwhile, considering the levels of practice, we had anticipated that reports of environmental issues surfacing in practice may be higher among mezzo- or macro-level practitioners than micro-level ones, considering that environmental justice efforts often involve community-based mobilization or organizing. Yet, the study results suggest that micro-level practitioners also experience an array of environmental issues in practice and, because they feel relatively even less prepared to respond, might especially benefit from knowledge exchange, strategy sharing, and new resource creation to improve their ability to act and intervene.

4.3. Create and Disseminate Trainings and Resources Tailored to Specific Issues

Finally, there is strong interest across the study respondents in new resources and trainings, and more-so for specific environmental justice issues, impacts, or advocacy efforts than environmental justice as a general concept. As there is now a growing number of social work scholars and educators who focus on environmental and climate justice in depth, their expertise can be paired with national and state social work associations to create and offer new, tailored, and practical CEU opportunities for practicing social workers on particular topics including, but not limited to, responding to climate or eco-grief in therapy, extreme weather and personal safety, and community organizing for clean air, green space, or food access.

Furthermore, while community organizing or policy advocacy might be considered to be macro-level strategies, the fact that interest in resources such as action alerts is high across the sample suggests that new collaborations of practitioners across levels of practice could be formed to pursue change that improves the structural conditions underlying environmental injustice. Micro-level practitioners, for example, might have firsthand stories from clients of how their lives are impacted by air pollution, a lack of green space, or extreme heat or cold, and these stories could be shared with mezzo- or macro-level practitioners who are organizing with neighborhoods or pursuing direct advocacy with policymakers on environmental justice-related programs or policies, working together to ensure that policy change is ultimately "responsive, rights-based and transformative", [45] p. 2268.

5. Conclusions

A variety of environmental issues are surfacing in practice, and while many social workers feel unprepared to respond, interest in tailored resources to improve knowledge and skills in this area is high. Findings from this study underscore the need for research

on environmental justice in social work education, valuing and sharing practice wisdom across job settings and levels of practice, and partnerships among social work associations and social work scholars and educators to create new and continuing education training and other resources on environmental justice issues. These concrete next steps can improve social worker readiness to respond to the environmental justice challenges that affect client and community health, safety, and wellbeing.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/su16198361/s1, Table S1: Extent in practice (% responding sometimes or often), by organization type; Table S2: Extent in practice (% responding sometimes or often), by area of practice; Table S3. Preparedness to respond (% responding somewhat or very), by organization type; Table S4. Preparedness to respond (% responding somewhat or very), by area of practice.

Author Contributions: Conceptualization, L.R.M., S.R. and A.K.; methodology, L.R.M., S.R. and A.K.; formal analysis, L.R.M., S.R.C. and S.R.; writing—original draft preparation, L.R.M., S.R.C., S.R., A.K. and J.S.; writing—review and editing, L.R.M., S.R.C., S.R., A.K. and J.S.; supervision, L.R.M.; project administration, L.R.M. All authors have read and agreed to the published version of the manuscript.

Funding: The University of Denver's Open Access Publication Equity Fund provided support for open access publishing of this manuscript.

Institutional Review Board Statement: This study was approved by the Institutional Review Board of the University of Denver (1979965-1; 21 November 2022).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: De-identified data are available upon request from the corresponding author, following an embargo period for additional scholarly publication by the authors.

Acknowledgments: We thank Colleen Cummings Melton, for contributions to survey development and recruitment, and Michael Holcombe, for study design consultation and online survey development and data management.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Bullard, R.D. Environmental justice: It's more than waste facility siting. *Soc. Sci. Q.* **1996**, *77*, 493–499. Available online: https://www.jstor.org/stable/42863495 (accessed on 19 September 2024).
2. Beltrán, R.; Hacker, A.; Begun, S. Environmental justice is a social justice issue: Incorporating environmental justice into social work practice curricula. *J. Soc. Work Educ.* **2016**, *52*, 493–502. [CrossRef]
3. Erickson, C.L. *Environment Justice as Social Work Practice*; Oxford University Press: Oxford, UK, 2018.
4. Krings, A.; Victor, B.G.; Mathias, J.; Perron, B.E. Environmental social work in the disciplinary literature, 1991–2015. *Int. Soc. Work* **2020**, *63*, 275–290. [CrossRef]
5. Mathias, J.; Krings, A.; Teixeira, S. Which environmental social work? Environmentalisms, social justice, and the dilemmas ahead. *Soc. Serv. Rev.* **2023**, *97*, 569–601. [CrossRef]
6. Bexell, S.M.; Forbes, R. Development and implementation of an ecological justice advanced practice curriculum for master of social work students. *Soc. Work Ment. Health* **2024**, 1–14. [CrossRef]
7. Boetto, H. A transformative eco-social model: Challenging modernist assumptions in social work. *Br. J. Soc. Work.* **2017**, *47*, 48–67. [CrossRef]
8. Agyeman, J.; Bullard, R.D.; Evans, B. Exploring the nexus: Bringing together sustainability, environmental justice and equity. *Space Polity* **2002**, *6*, 77–90. [CrossRef]
9. Strayer, S.; Stoeffler, S.W. The intersection of racism and poverty in the environment: A systematic review for social work. *Soc. Dev. Issues* **2024**, *46*, 5. [CrossRef]
10. Bullard, R.D. Environmental justice—Once a footnote, now a headline. *Harv. Environ. Law Rev.* **2021**, *45*, 243.
11. Rowland-Shea, J.; Doshi, S.; Edberg, S.; Fanger, R. *The Nature Gap: Confronting Racial and Economic Disparities in the Destruction and Protection of Nature in America*; Center for American Progress: Washington, DC, USA, 2020. Available online: https://www.americanprogress.org/article/the-nature-gap/ (accessed on 19 September 2024).
12. Lane, K.; Wheeler, K.; Charles-Guzman, K.; Ahmed, M.; Blum, M.; Gregory, K.; Graber, N.; Clark, N.; Matte, T. Extreme heat awareness and protective behaviors in New York City. *J. Urban Health* **2014**, *91*, 403–414. [CrossRef]
13. Mason, L.R.; Ellis, K.N.; Hathaway, J.M. Experiences of urban environmental conditions in socially and economically diverse neighborhoods. *J. Community Pract.* **2017**, *25*, 48–67. [CrossRef]

14. Anderson, J.O.; Thundiyil, J.G.; Stolbach, A. Clearing the air: A review of the effects of particulate matter air pollution on human health. *J. Med. Toxicol.* **2012**, *8*, 166–175. [CrossRef] [PubMed]
15. Hoffman, J.S.; Shandas, V.; Pendleton, N. The effects of historical housing policies on resident exposure to intra-urban heat: A study of 108 US urban areas. *Climate* **2020**, *8*, 12. [CrossRef]
16. Kemp, S.P. Recentring environment in social work practice: Necessity, opportunity, challenge. *Br. J. Soc. Work* **2011**, *41*, 1198–1210. [CrossRef]
17. Teixeira, S.; Krings, A. Sustainable social work: An environmental justice framework for social work education. *Soc. Work Educ.* **2015**, *34*, 513–527. [CrossRef]
18. Rambaree, K.; Powers, M.C.; Smith, R.J. (Eds.) *Ecosocial Work in Community Practice: Embracing Ecosocial Worldviews and Promoting Sustainability*; Routledge: New York, NY, USA, 2022.
19. Lysack, M. Effective policy influencing and environmental advocacy: Health, climate change, and phasing out coal. *Int. Soc. Work* **2015**, *58*, 435–447. [CrossRef]
20. Council on Social Work Education. Curricular Guide for Environmental Justice. 2020. Available online: https://www.cswe.org/products/curricular-guide-for-environmental-justice/ (accessed on 19 September 2024).
21. National Association of Social Workers. 2021 Blueprint of Federal Social Policy Priorities. 2021. Available online: https://www.socialworkers.org/LinkClick.aspx?fileticket=KPdZqqY60t4%3D&portalid=0 (accessed on 19 September 2024).
22. Boetto, H.; Bell, K.; Ivory, N. Disaster preparedness in social work: A scoping review of evidence for further research, theory and practice. *Br. J. Soc. Work* **2021**, *51*, 1623–1643. [CrossRef]
23. Mason, L.R.; Shires, M.K.; Arwood, C.; Borst, A. Social work research and global environmental change. *J. Soc. Soc. Work Res.* **2017**, *8*, 645–672. [CrossRef]
24. Mason, L.R.; Melton, C.C.; Gray, D.; Swallow, A.L. Climate change, social work, and the transition away from fossil fuels: A scoping review. *Sustainability* **2022**, *14*, 7086. [CrossRef]
25. Matthies, A.L.; Närhi, K. (Eds.) *The Ecosocial Transition of Societies: The Contribution of Social Work and Social Policy*; Routledge: London, UK, 2016.
26. Forde, C.; Ranta-Tyrkkö, S.; Liens, P.; Rambaree, K.; Belchior-Rocha, H. *Teaching and Learning in Ecosocial Work: Concepts, Methods, and Practice*; Springer: Cham, Switzerland, 2024.
27. Chonody, J.M.; Sultzman, V.R.O. An exploratory study of students' perceptions of environmental issues as social work practice and their understanding of environmental justice. *Soc. Work. Educ.* **2022**, *41*, 514–536. [CrossRef]
28. Strayer, S.; Joseph, R.; Stoeffler, S.W. Predictors of integration of environmental justice in social work education: A cross-sectional study of faculty in the United States. *Soc. Work Educ.* **2023**, *42*, 94–111. [CrossRef]
29. Magruder, K.J.; Mitschke, D.B.; Slater, H.M. Teaching note—Ecological devastation bus tour: A new pedagogy for environmental social work? *J. Soc. Work Educ.* **2023**, *59*, 1273–1280. [CrossRef]
30. Harms, L.; Boddy, J.; Hickey, L.; Hay, K.; Alexander, M.; Briggs, L.; Cooper, L.; Alston, M.; Fronek, P.; Howard, A.; et al. Post-disaster social work research: A scoping review of the evidence for practice. *Int. Soc. Work* **2022**, *65*, 434–456. [CrossRef]
31. Rambaree, K.; Powers, M.C.; Smith, R.J. Ecosocial work and social change in community practice. *J. Community Pract.* **2019**, *27*, 205–212. [CrossRef]
32. Nöjd, T.; Kannasoja, S.; Niemi, P.; Ranta-Tyrkkö, S.; Närhi, K. Social welfare professionals' views on addressing environmental issues in social work in Finland. *Nord. Soc. Work Res.* **2024**, 1–15. [CrossRef]
33. Boetto, H.; Bowles, W.; Ramsay, S.; Shephard, M.; Cordoba, P.S. Australian perspectives on environmental practice: A national survey with human service professionals. *J. Soc. Work* **2024**, 14680173241258885. [CrossRef]
34. Shaw, T.V. Is social work a green profession? An examination of environmental beliefs. *J. Soc. Work* **2013**, *13*, 3–29. [CrossRef]
35. Nesmith, A.; Smyth, N. Environmental justice and social work education: Social workers' professional perspectives. *Soc. Work Educ.* **2015**, *34*, 484–501. [CrossRef]
36. Allen, M.D. Climate change in Alaska: Social workers' attitudes, beliefs, and experiences. *Int. J. Soc. Welf.* **2020**, *29*, 310–320. [CrossRef]
37. Reese, R.F.; Swank, J.M.; Sturm, D.C. A national survey of helping professionals on climate change and counseling. *J. Humanist. Couns.* **2023**, *62*, 201–215. [CrossRef]
38. U.S. Census Bureau Quick Facts. 22 November 2023. Available online: https://www.census.gov/quickfacts/fact/table/OH,TN,CO/PST045222 (accessed on 19 September 2024).
39. National Centers for Environmental Information. U.S. Climate Regions. 22 November 2023. Available online: https://www.ncei.noaa.gov/access/monitoring/reference-maps/us-climate-regions (accessed on 19 September 2024).
40. Pew Research Center Party Affiliation by State. 22 November 2023. Available online: https://www.pewresearch.org/religion/religious-landscape-study/compare/party-affiliation/by/state/ (accessed on 19 September 2024).
41. Burgess, D.; Shier, M.L. Food insecurity and social work: A comprehensive literature review. *Int. Soc. Work* **2018**, *61*, 826–842. [CrossRef]
42. Kvam, A.; Willett, J. "Mining is like a search and destroy mission": The case of Silver City. *J. Community Pract.* **2019**, *27*, 388–403. [CrossRef]
43. Kaiser, M.L.; Himmelheber, S.; Miller, S.; Hayward, R.A. Cultivators of change: Food justice in social work education. *Soc. Work Educ.* **2015**, *34*, 544–557. [CrossRef]

44. Wu, H.; Greig, M.; Bryan, C. Promoting environmental justice and sustainability in social work practice in rural community: A systematic review. *Soc. Sci.* **2022**, *11*, 336. [CrossRef]
45. Lombard, A.; Viviers, A. The micro–macro nexus: Rethinking the relationship between social work, social policy and wider policy in a changing world. *Br. J. Soc. Work* **2020**, *50*, 2261–2278. [CrossRef]