2019
STATUS AND NEEDS OF ENVIRONMENTAL EDUCATION ORGANIZATIONS IN WISCONSIN

Opportunities

Trends

Challenges

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UPHAM WOODS

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UNIVERSITY OF WISCONSIN-MADISON

Status and Needs of Environmental Education Organizations in Wisconsin

Results from the 2019 state-wide survey

November 2019

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Introduction

In January 2019, we distributed a survey to Environmental Education (EE) organizations in Wisconsin with the goal of gathering and synthesizing the challenges, opportunities, and needs in EE in our state. This is the third iteration of such an assessment in Wisconsin, allowing us to capture trends and changes that have occurred since the first assessment in 2014. This year, a total of 193 people representing 173 EE organizations responded to the survey. We gathered information collected in previous iterations, and added new sections to capture emerging trends and challenges in EE at the national level.

For the 2019 survey we saw opportunity for improving the survey tool as well as the reporting of the results. We added a question about the usefulness of the 2017 report, finding that the majority (61.5%) of respondents felt 'Neutral' about it. We made changes in this report, and we hope it will be useful and informative for identifying trends, opportunities, and challenges in EE at both the organization level, and at the state level. We structured this report differently, and it includes:

- **New Updates to the 2019 Survey**: We let you know what has changed;
- **Selected Results:** We present a few select questions from the 2019 survey for discussion;
- **A Deeper Dive into Equity, Diversity, and Inclusion**: An analysis of diversity, equity and inclusion (DEI) and professional development in EE in Wisconsin, comparing 2019 and 2015-2016 survey (a manuscript submitted for publication);
- **A Call to Action**: How EE can step forward to address the STEM achievement gap (a manuscript submitted for publication).

We believe the findings and analysis presented here have immediate application and implications for EE in Wisconsin. For example, EE organizations in Wisconsin can use the findings to develop more strategic approaches to professional development. We hope that this report may also serve as a useful tool for strategic visioning of EE in the state of Wisconsin.
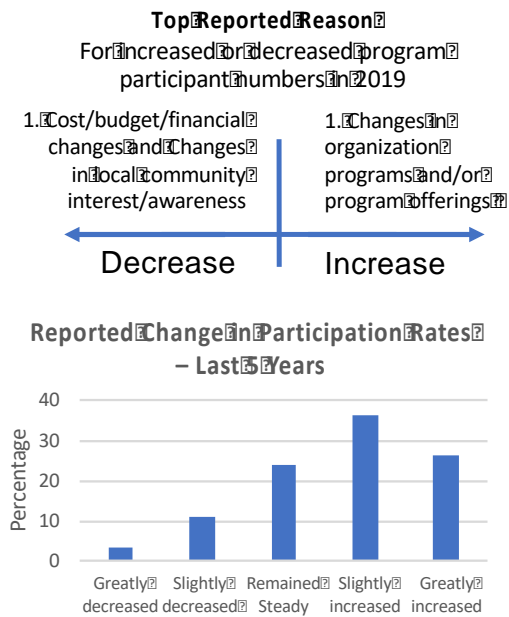
2019 Status & Needs of Wisconsin EE Organizations

During the first quarter of 2019, we distributed a web-based survey to environmental education (EE) organization leaders across the state of Wisconsin. The purpose of the survey was to conduct a status and needs assessment of the EE industry in Wisconsin. The survey was distributed previously in 2014 and 2016.

General EE Organization Information and Trends

193 EE leaders representing **173 EE organizations** completed the survey. We asked these leaders to describe their organization in a number of ways. For example, whether the organization **correlates school program to academic standards** (75.3% - Yes), if they considered their location an **outdoor tourist destination** (44.0% - Yes) and if they **regularly partner with other regional or statewide EE organizations** (59.5% - Yes).

Top Reported Reason
For increased or decreased program participant numbers in 2019

Decrease	Increase
1. Cost/budget/financial changes and Changes in local community interest/awareness	1. Changes in organization programs and/or program offerings

Respondents estimated the distribution of the ages of their audience, which includes both participants and visitors.

Average Percentage of Ages Served					
Org Category	0-10 yrs old	11-14 yrs old	15-18 yrs old	19 - 65 yrs old	65+ yrs old
Camps (n=18)	**26.9%**	22.0%	5.9%	23.4%	6.9%
Clubs and Formal Ed. Orgs (n=34)	**39.8%**	15.0%	13.1%	18.0%	10.2%
Conservation Orgs (n=47)	**29.7%**	12.8%	5.7%	28.6%	8.9%
Fundraising Orgs (n=11)	16.9%	18.3%	7.4%	**41.9%**	13.7%
Museums, Zoos, Nature Centers (n=22)	**23.5%**	11.8%	4.9%	17.4%	10.6%
Outdoor Learning Facilities (n=12)	23.0%	19.5%	8.5%	**51.0%**	12.0%
Public Parks (n=30)	27.1%	13.8%	4.8%	20.6%	17.1%
Grand Total	**28.6%**	15.3%	7.2%	25.4%	11.4%

Reported Change in Participation Rates – Last 5 Years

Industry, Economics, and Jobs

The table below shows the distribution of funding sources by type of EE organization

Average Percentage of Funding Sources						
Org Category	State Gov.	Grant Fdns.	Program Rev.	County/ Local Gov.	Private Donors/ Memberships	Other
Camps	8.3%	17.5%	11.7%	**25.0%**	12.5%	8.3%
Clubs and Formal Ed. Orgs	21.3%	4.7%	**25.5%**	5.0%	21.8%	7.9%
Conservation Orgs	7.1%	5.9%	**22.5%**	20.9%	19.1%	12.1%
Fundraising Orgs	**38.0%**	5.0%	19.3%	0.3%	29.3%	8.0%
Museums, Zoos, Nature Centers	8.5%	8.1%	20.0%	0.0%	**27.8%**	4.7%
Outdoor Learning Facilities	**36.7%**	12.0%	19.0%	4.8%	18.3%	20.8%
Public Parks	7.7%	13.5%	**30.1%**	0.2%	23.2%	25.4%
Grand Total	14.6%	9.0%	**23.0%**	8.1%	21.6%	13.1%

3,110 people are **employed by EE organizations** in Wisconsin.

1.1 Million user days of education in the field within the last year.
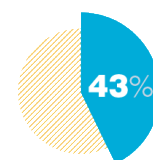
On average, organizations spend **43% of their budget on staff.**

The **EE industry in Wisconsin** has an estimated annual value of **40 million to 72 million dollars.**

Total Annual Operating Budget	%
$0 - $100,000	**23.7%**
$100,000 - $250,000	11.8%
$250,000 - $500,000	14.5%
$500,000 - $1,000,000	21.0%
$1,000,000 - $1,250,000	6.6%

Total Annual Operating Budget	%
$1,250,000 - $1,500,000	9.2%
$1,500,000 - $2,000,000	6.6%
$2,000,000 - $5,000,000	5.3%
$5,000,000 or more	1.3%

Land Management

74.5% of respondents reported that their organization **owns or manages land and/or facilities,** totaling **165, 466 acres**. Of those respondents, **72.9%** reported having a **land management plan** in place.

Respondents were asked what **land management topics/projects their organization would benefit from technical or consulting assistant with**. The top 5 topics were:

1. Invasive species identification and management (48.7%)
2. Interpretive signs (environmental, historical etc.) (48.7%)
3. Funding for implementing management activities (44.7%)
4. Forestry (42.1%)
5. Trails and recreational opportunities (40.8%)

75.0% of respondents reported their organization conducting **ecological research, monitoring, or citizen science data gathering** of their site. The most common activities done within the last year were:

1. Bird monitoring (52%)
2. Water quality monitoring (42.1%)
3. Plant community surreys or seed collection (39.4%)
4. Wildlife/plant phenology (39.4%)
5. General wildfire surveys (34.2%)

Inclusion and Accessibility

Of the **93.1%** of respondents who considered their organization's facilities to be **accessible or somewhat accessible** to visitors with disabilities, half **(50.5%)** have **never conducted an accessibility survey** of their site. The most **common accessibility-related training** that staff receive focus on **physical disabilities** (65.1%) and ways to encourage **communication and interaction among all participants** (50%).

50%

Provide **training on diversity, equity and inclusion.**

Reported Accessibility to Visitors with Disabilities	Yes	Somewhat	No
Facilities	43.6%	**49.6%**	6.8%
Programs	38.1%	**56.3%**	5.6%

40.3% of organizations have **content or resources available in other languages**

Professional Development Needs and Offerings

Survey participants were asked which subject areas and organizational skills their staff would most benefit from additional training. Shown below are the most common responses:

Top **EE Subjects Areas** staff need
1. Using STEM as a context for EE (E-STEM)
2. Technology use in outdoor education
3. Understanding school initiatives, speaking school language
4. Community action/service learning
5. 'Sustainable design/green technologies or buildings' and 'Community-based learning'

Top **Organizational Skills** staff need
1. Diversity, equity and inclusion
2. Grant writing
3. Fundraising
4. Digital presence/website/Facebook/etc.
5. Volunteer management

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EE Organizations in Wisconsin

Wisconsin has a longstanding legacy of environmental education, realized everyday through the over 700 EE organizations in our state working to create a more environmentally-literate and resilient Wisconsin. This year, 193 people responded to the survey, representing 173 EE organizations.

All EE-related Organizations
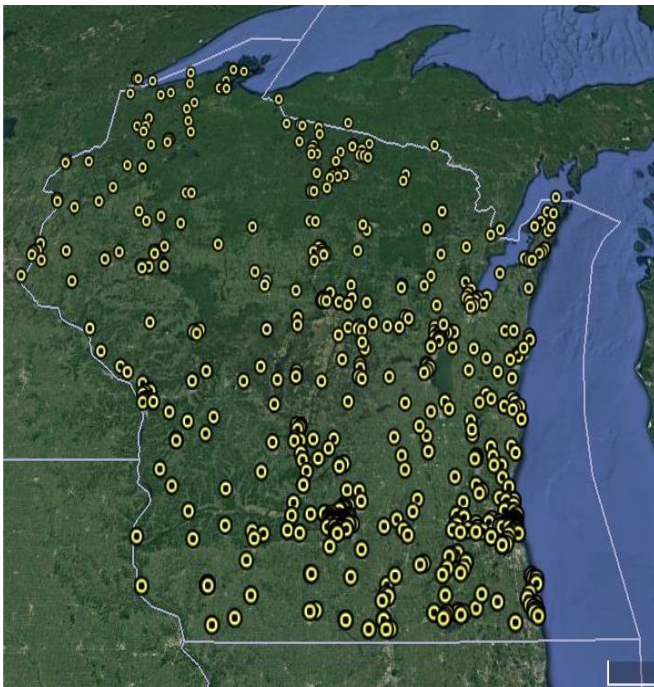
Note. N=709

2019 Status and Needs Survey Respondents
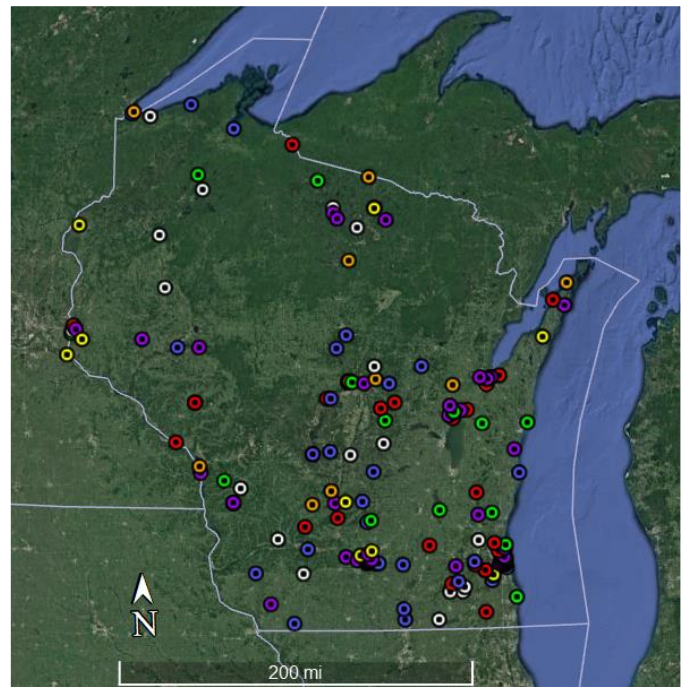
Note. *n*=173

	Camps (*n*=18)
	Clubs and Formal Education Organizations (*n*=34)
	Conservation Organizations (*n*=47)
	Fundraising Organizations (*n*=11)
	Museums, Zoos, Nature Centers (*n*=22)
	Outdoor Learning Centers (*n*=12)
	Public Parks (*n*=30)

Updates to the 2019 Survey Tool

In 2019, we updated the survey tool to improve our understanding of the status and needs of environmental education in Wisconsin. Here we highlight the major changes that were made to the 2019 survey:

- We categorized EE organizations by function to better orient the data (p. 6);
- We used display logic to populate questions related to job responsibilities (p. 6);
- The DEI section was expanded to gather data on gaps and trends (p. 7).

New Organization Categories

The new categories represent the types of EE organizations by organizational function.

Table 1. Organization Categories

Category	#	Examples	Descriptions
Camps	18	Traditional camps, YMCA camps	Organizations that have camp within their name and focus mainly on recreational activities
Outdoor Learning Facility	12	Urban Ecology Center, research preserves	Organizations with programming focused on science and environmental education
Museums/Zoos/ Nature Center	22	Museums, zoos, nature centers	Organizations that provide education opportunities for learners through the display of nature vs through interactive programming or recreational activities.
Conservation Organizations	47	Audubon societies, sanctuaries, rescue centers, sewerage districts, Sea Grant institute	Organizations that have programming based on preservation and restoration. Organizations sometimes serve as hubs for content and/research in specific topics.
Public Parks	30	Public lands, DNR	Lands that are open to the public for self-guided experiences.
Fundraising	11	Friends groups, foundations	Organizations whose purpose is to raise funds for a specific purpose.
Clubs and Formal Education Organizations	34	Boys and Girls Club, 4-H, K-12 schools, universities, WSST, CESA	National youth club organizations and organizations that provide programming in formal education settings.

Display Logic

We also made use of display logic within the Qualtrics system. We had respondents select their job responsibilities, triggering questions related to those responsibilities, to make sure people were only getting questions that related to their roles. This decreased the number of questions a person would potentially have to answer. For example, only those who indicated financial reporting responsibilities as a part of their work description were required to answer questions related to budgets. This ensured that respondents only needed to answer relevant questions and shortened response time for some participants. Display logic was implemented as an additional strategy to increase survey completion for the 2019 survey.

Expansion of the DEI section

Some of the most pressing emerging challenges in EE relate to diversity, equity, and inclusion (DEI). In particular, EE faces a historic and persistent lack of diversity in the EE workforce, and a need for critical conversations around how equity, inclusion, and cultural relevance actually show up (if at all) within EE organizations. We felt it was important to include questions specific to DEI in the 2019 Status and Needs survey. We worked in consultation with August Ball, Founder/CEO of Cream City Conservation & Consulting LLC to develop 14 questions related to DEI in EE. We also added questions on organizational commitment, and staff training sessions, and included definitions for the terms diversity, equity and inclusion:

Diversity: Differences that make a difference.

Equity: A process of ensuring everyone has access to what they need to thrive

Inclusion: Celebrating, welcoming and valuing differences.

Selected Results

This year we report on a selection of findings most relevant to EE organizations in Wisconsin. The selected findings inform our understanding of the current state of EE in Wisconsin, as well as identify needs in professional development that will help advance our field.

Current State of EE in Wisconsin:

- **Participant Numbers** – We summarize how and why participant numbers are changing;
- **Connection to Nature** – We report on the type of nature connections EE organizations are working to promote;
- **Volunteer Impact** – We take a look at this important segment of the EE workforce;

Current Needs in EE in Wisconsin:

- **Professional Development** – We share the professional development needs and resources identified by respondents;
- **Working with People with Disabilities** – We highlight this as an area of development.

Increases in Participation Numbers

EE organizations often have targeted goals of reaching a certain number of participants per year. We asked respondents whether their participation numbers were increasing or decreasing, and why. Most respondent reported an increase in participant numbers (Figure 1). The results showed that 'Changes in organization programs and/or program offerings' and "Changes in local community interest/awareness" were the two top reasons for increases in participation (Table 2). The number one reason for participation numbers staying steady was "Steady relationships/partnerships."

Figure 1. Reported Change in Participation Rates Over the Last 5 Years
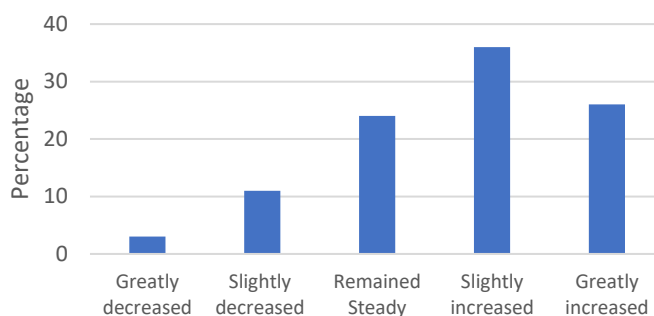
Table 2. Top Reasons for Participation Increase by Organization Type

Organization Type	Top Reason for Participation Increase
Camps	Changes in local community interest/awareness
Clubs and Formal Education	Changes in local community interest/awareness
Conservation	Changes in organization programs and/or program offerings
Fundraising	Changes in local community interest/awareness
Museums, Zoos, Nature Centers	Changes in organization programs and/or program offerings
Outdoor Learning Centers	Changes in local community interest/awareness
	Changes in organization marketing efforts
Public Parks	Changes in organization programs and/or program offerings

Connection to Nature

Fostering a connection to nature is a longstanding goal of EE. We wanted to understand the type of relationship to nature EE organizations try to promote among their participants. While promoting a naturalistic connection to nature was the most prevalent, a utilitarian connection to nature was seen more as the top response when the data was broken down organization type (Table 3).

Table 3. Connection to Nature Promoted by Different Types of EE Organizations

Organization Type	Type of Connection to Nature Promoted
Camps	Satisfaction from direct experience/contact with nature (naturalistic)
Clubs and Formal Education	Practical utilization of natural resources (utilitarian)
Conservation	Satisfaction from direct experience/contact with nature (naturalistic)
Fundraising	Appreciation of natural history (learning)
	Systematic study of structure, function and relationship in nature (ecologistic-scientific)
Museums, Zoos, Nature Centers	Practical utilization of natural resources (utilitarian)
Outdoor Learning Centers	Practical utilization of natural resources (utilitarian)
	Satisfaction from direct experience/contact with nature (naturalistic)
	Systematic study of structure, function and relationship in nature (ecologistic-scientific)
Public Parks	Practical utilization of natural resources (utilitarian)

Note. The types of connection to nature categories were adapted from the Connecting to Nature Survey (2018) by Children & Nature Network NAAEE, Stanford University, University of Florida and University of Minnesota.

Volunteer Impact

Volunteers make up a large part of the EE industry in Wisconsin. More than 17,250 people volunteer for EE organizations around the state and contributed over 464,000 hours of work within the last year. When compared to the number of paid employees in the EE industry, there exists a1:5 ratio of employees to volunteers. The types of activities volunteers are engaged in is shown in Figure 2. Additionally, volunteer management ranked as the 5th most desired organizational skill for professional development of organizational skills (Table 6).

Figure 2. What responsibilities do volunteers assist with?
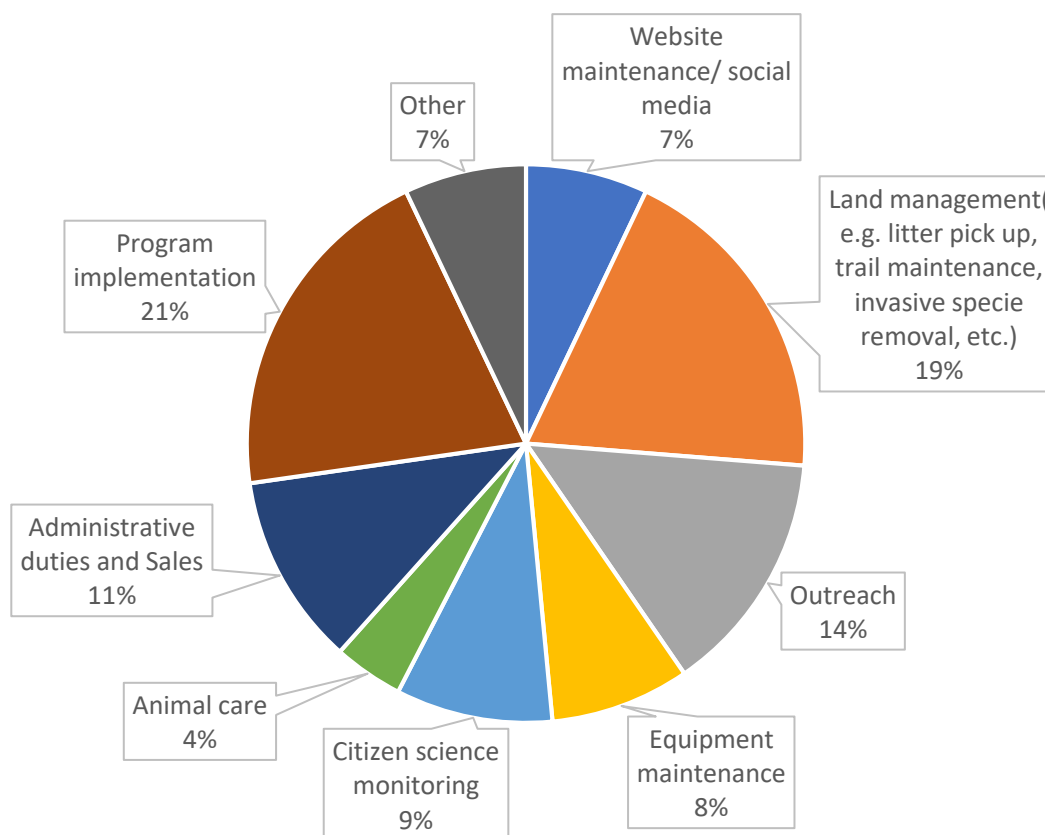
Professional Development: EE Subject Areas

Participants were asked to identify which EE subject area they would benefit from training in, and whether their organization felt comfortable being publicly listed as resource for each subject area (Table 4). The most and least common training subject areas are listed in Table 5.

Table 4. Top 10 Areas for More Subject Training and Organizations Willing to Serve as Resources

Rank	Areas For More Training	Organizations Willing to Serve as a Resource
1	Using STEM as a Context for Environmental Education (E-STEM)	Education Outfitters, Wisconsin Green Schools Network, Waupaca Biological Field Station, Urban Ecology Center, Wisconsin Center for Environmental Education (including LEAF and KEEP), NEXT.cc Designopedia,
2	Technology Use in Outdoor Education	Education Outfitters, Wisconsin Center for Environmental Education (including LEAF and KEEP), NEXT.cc Designopedia
3	Understanding School Initiatives, Speaking School Language	Summer Outdoor Adventure Club Inc., Education Outfitters, Wisconsin Green Schools Network, Urban Ecology Center, Waupaca Biological Field Station,
4	Community Action/Service Learning	Summer Outdoor Adventure Club Inc., Education Outfitters, Wisconsin Green Schools Network, UW Extension, Urban Ecology Center, Gaylord Nelson Audubon
5	Community-based Learning	Victory Garden Initiative, Summer Outdoor Adventure Club Inc., Education Outfitters, Wisconsin Green Schools Network, UW Extension, Urban Ecology Center, NEXT.cc Designopedia,
5	Sustainable Design/Green Technologies or Buildings	Waupaca Biological Field Station, Urban Ecology Center, Wisconsin DNR, Wisconsin Center for E NEXT.cc Designopedia nvironmental Education (including LEAF and KEEP),
6	Birds	Wisconsin Society for Ornithology, International Crane Foundation, Racine Zoo, Wehr Nature Center, Camp Woodbrooke, Door County Land Trust, Wisconsin DNR, Urban Ecology Center, Waupaca Biological Field Station, Gaylord Nelson Audubon, NEXT.cc Designopedia, Northeastern Wisconsin Audubon Society
6	Current Environmental Issues	Milwaukee Riverkeeper, U.S. Fish and Wildlife Service DOI, Education Outfitters, Door County Land Trust, UW Extension, Gaylord Nelson Audubon, NEXT.cc Designopedia,
7	Astronomy	Wehr Nature Center, Gaylord Nelson Audubon
8	Composting/Vermicomposting	Victory Garden Initiative, Summer Outdoor Adventure Club Inc., NEXT.cc Designopedia, Recycling Connections
8	Sustainability/Resource Consumption	Urban Ecology Center, UW Extension, Wisconsin DNR, Treehaven, Wisconsin Center for Environmental Education (including LEAF and KEEP), NEXT.cc Designopedia,
9	Air Quality	NEXT.cc Designopedia
9	Plants	Friends of Boerner Botanical Gardens, Wehr Nature Center, U.S. Fish and Wildlife Service DOI, Bookworm Gardens, Door County Land Trust, Wisconsin DNR, UW Extension, Urban Ecology Center, Waupaca Biological Field Station, Gaylord Nelson Audubon, NEXT.cc Designopedia
10	Energy Efficiency	Urban Ecology Center, WI DNR, Wisconsin Center for Environmental Education (including LEAF and KEEP), NEXT.cc Designopedia.

Table 5. Most and Least Common EE Subject Areas Trainings

Rank	Most Common	Least Common
1	Water Quality/Aquatic Ecology/Fish Natural History Land Use/Conservation	Disciplinary Literacy Air Quality Understanding School Initiatives, Speaking School Language
2	Land Animals Water Cycle Water Sports/Kayaking/Canoeing	Sustainable Design/Green Technologies or Buildings
3	Birds	Essential Questions/ Performance Tasks

Professional Development: Organizational Skills Areas

Respondents were asked to identify which EE organizational skills they would benefit from training in, and whether their organization felt comfortable being publicly listed as resource for each organizational skill (Table 6). The most and least common training subject areas are listed in Table 7.

Table 6. Top 10 Areas for More Organizational Skills Training and Organizations Willing to Serve as a Resource

Rank	Areas For More Training	Organizations Willing to Serve as a Resource
1	Diversity, Equity, and Inclusion	Summer Outdoor Adventure Club Inc.
2	Grant Writing	Summer Outdoor Adventure Club Inc., Door County Land Trust, UW Extension, Waupaca Biological Field Station
3	Fundraising	Summer Outdoor Adventure Club Inc., Natural Resources Foundation of Wisconsin, Door County Land Trust
4	Digital Presence/Website/Facebook/Twitter/Etc.	NEXT.cc Designopedia
5	Volunteer Management	Summer Outdoor Adventure Club Inc., Wehr Nature Center, Door County Land Trust, Wisconsin DNR, Urban Ecology Center
6	Exhibit Development	UW Extension, Urban Ecology Center, Waupaca Biological Field Station
6	Public Relations/Marketing	Summer Outdoor Adventure Club Inc., UW Extension
7	Non-profit Management/Working with Executive Boards	Door County Land Trust
7	Strategic Planning	Summer Outdoor Adventure Club Inc., Wehr Nature Center, Urban Ecology Center
8	Budgeting/Finances	None
9	Interpretive Skills/Instructional Methods	Summer Outdoor Adventure Club Inc., Wehr Nature Center, Education Outfitters, Wisconsin DNR, UW Extension, Waupaca Biological Field Station
9	Program Development	Summer Outdoor Adventure Club Inc., Wehr Nature Center, UW Extension, Urban Ecology Center, NEXT.cc Designopedia
10	Personnel Management (Staff hiring, training, evaluation)	Summer Outdoor Adventure Club Inc.

Table 7. Most and Least Common EE Organizational Skills Trainings

Rank	Most Common	Least Common
1	Group/Classroom Facilitation	Transportation
2	Program Development	Diversity Equity and Inclusion
		Exhibit development
		Food Services
3	Interpretive Skills/Instructional Methods	Site Development and Maintenance (conservation/forest management plans and projects)
		Volunteer Management

Working with People with Disabilities

Overwhelmingly, respondents reported wanting more training for serving people with disabilities. Just over half of respondents reported having activity ideas for learners of all abilities (Figure 3). When asked about site accessibility, most respondents (93.1%) indicated having accessible or somewhat accessibility facilities, and most felt it was a priority (Figure 4). Of those, only 49.5% had conducted an accessibility site survey.

Figure 3. Does your curriculum or lesson plans include activity ideas for learners of varying abilities? (n =124)
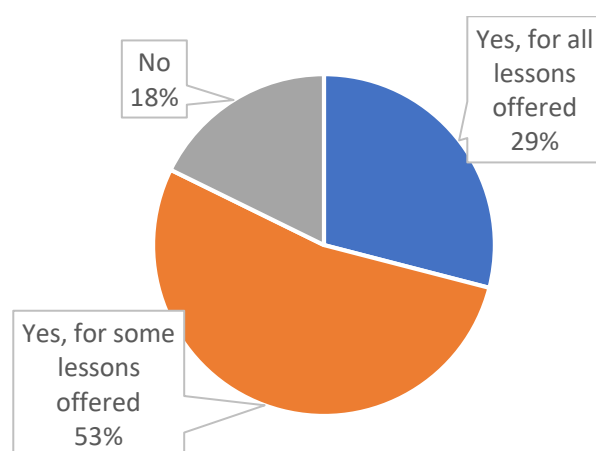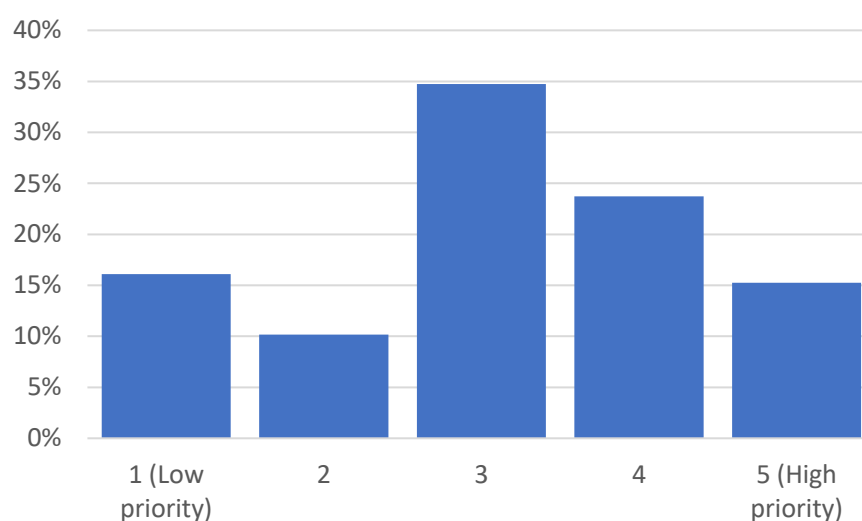

Figure 4. What level of priority does your organization place on increasing program and facility accessibility at your site? (n = 118)

A Deeper Dive into Equity, Accessibility, and Inclusion

Conducting a Status and Needs Assessment of Environmental Education Organizations to Understand Collective Impacts, Trends and Challenges

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(A Manuscript Submitted for Publication)

Introduction

Environmental education organizations (EEOs), ranging from nature centers and site-based education facilities to programs run by counties, cities, states, and Cooperative Extension, need relevant, comprehensive data to inform decision-making and programming (Larese-Cassanova, 2011). Information on participant numbers and demographics, trends, needs, and capacities can support EEOs in addressing challenges, adapting to changing contexts, building capacity, and, when acting in coordination, enhancing the overall quality of Environmental Education (EE). A range of stakeholders, including Extension, government officials and the general public also rely on such information when making decisions regarding policy, funding, and resource allocation. Without comprehensive understanding of this kind, strategic action to address current and emerging challenges is limited if not impossible. Extension professionals are in a unique position to be the driver of this type of data gathering due to the wide-ranging connections at both local and regional levels. Often the first step in such an approach is a systematic needs assessment, a commonly used tool among extension professionals.

Needs assessments conducted by Extension professionals are defined by the gathering of specific information on a focal population or community in order to set priorities and make decisions (Harms, Presley, Hettriarachchi, & Thien, 2013). Extension professionals use needs assessments for a variety of purposes, and the results are sometimes reported to a broader audience through JOE. For example, published needs assessments have been done by extension professionals in order to understand educational needs of a particular population (e.g. Harms, Presley, Hettriarachchi, & Thien, 2013), to strengthen funding proposals (Angima, Etuk, & King, 2014), to ensure relevant professional development techniques (Conner, Dev & Krause, 2018), and as a tool for youth engagement in community development (Israel & Ilvento, 1995). Conducting a needs assessment results in more clearly outlined needs, and ultimately leads to more effective use of resources to address those needs (Monroe, 2012).

While other states (e.g. Rhode Island and Pennsylvania) have conducted state level assessments related to environmental education, they are not often published in peer-reviewed venues or reported publicly. To the best of our knowledge, the most recently published study investigating the status of environmental education at a state level was conducted in 1998 (Ruskey, Wilke & Beasley, 2001). The study reported on a national survey of EEOs operating at the state level, comparing two years of survey data from 1995 and 1998. The survey asked about capacity as measured by the presence or absence of 16 components of comprehensive EE, ranging from assessment plans to funding resources. The study reported that Wisconsin had the highest number of EE components in place in 1998 (15 out of 16). The authors urged that repeated surveys were necessary to keep up with changes in comprehensive EE programs, and that future surveys should assess the status of new initiatives. This study answers that call for the state of Wisconsin, and with a particular focus on new challenges and initiatives in the field of EE.

Some of the most pressing emerging challenges in EE relate to equity, accessibility and inclusion (EA&I). In particular, EE faces a historic and persistent lack of diversity in the EE workforce (Johnson, 2019), and a need for critical conversations around how equity, inclusion, and cultural relevance actually show up (if at all) within EEOs (The Lawrence Hall of Science & Youth Outside, 2019). In addition, there are documented needs for staff training and development regarding equity and accessibility, for example a recent survey of EE professionals identified a need among respondents to "better reach underserved audiences and successfully address barriers to access of all sorts" (p. 4, Children & Nature Network, 2016). Similarly, a recent literature review in Journal Of Extension focused on inclusion of youths with disabilities in 4-H programming, and identified a need for more data in this area, as well as resources for staff to help youth succeed (Taylor-Winney, Xue, McNab, & Krahn, 2019). These EA&I challenges cannot be addressed by one EEO acting individually, but rather require a data-informed and strategic approach.

Given the emerging needs and challenges in EE at a national level (some of which were described above) a comprehensive and systematic assessment at a regional level is necessary to 1) enhance understanding of the current state of EE, 2) outline existing needs, 3) identify challenges facing EEOs. Such an assessment may be used for program planning, decision-making, and coordinated action among both Cooperative Extension, networks of EE professionals in the state (e.g.WAEE) and the EEOs themselves. The lack of such a resource for Wisconsin is what prompted the undertaking of our project, a multiyear status and needs assessment of the field of EE in the state of Wisconsin led by a group of extension professionals specializing in EE. The primary questions driving this status and needs assessment include:

1. What is the current status of EE in Wisconsin?
2. What organizational needs are most pressing among EEOs?
3. What opportunities exist for more strategic engagement among EEOs (e.g. learning between organizations)?

For the purposes of the work we are presenting here, we were particularly interested in the following sub-questions:

1. What is the state of accessibility and inclusion (EA&I) in EE in Wisconsin?
2. What are the most pressing professional development (PD) training needs identified by Wisconsin EE orgs?

We conducted a statewide web-based survey of EEO leaders in Wisconsin in 2015-2016 (Hougham, Kerlin, Liddicoat, Ellis, & Krampe, 2017) and again in 2019. The surveys included questions about visitation trends, operating budgets, personnel, land management, accessibility and inclusion, and staff training and professional development needs. This paper aims to capture the new and changing trends within the EE field in Wisconsin between 2015 and 2019, specifically those related to EA&I and professional development. The findings are particularly useful for EEOs and cooperative extension in the state of Wisconsin and may be used to prioritize resources and trainings for professional development, coordinate efforts to address statewide challenges, or advocate for EE in state policy and funding. Our status and needs assessment may also be used by national-level organizations seeking to target specific needs in environmental education at a regional scale. For example, the Association for Natural Resources Extension Professionals specifically asks, "What can ANREP do to provide and support regionally based educational opportunities, networking and collaboration?" as a priority issue in the 2015-2020 Strategic Plan (p.4). Others outside of the region may also be interested in the survey findings for comparison purposes or to conduct similar efforts in other states or regions.

Methodology

In 2015, we developed a survey instrument to conduct a status and needs assessment of EE leaders in Wisconsin. We distributed the web-based survey in the winter of 2015 – 2016 utilizing a recently created inventory of Wisconsin EEO leaders (Kerlin, Kacoroski, & Liddicoat, 2015). We analyzed the survey results and distributed a report through electronic mailing lists, websites, newsletters, and at conferences and regional networking events held by the Wisconsin Association for Environmental Education (WAEE), Wisconsin Center for Environmental Education, and University of Wisconsin-Extension. Subsequently, the 2015 survey instrument was revised and administered again in 2019. Here we report results relevant to EA&I and PD from both surveys.

The 2015 survey instrument consisted of 50 open and closed-ended questions. The instrument was adapted from a previous survey of inclusive practices at EE organizations (Liddicoat, Rogers, & Anderson, 2006). Survey items inquired about visitor/participation statistics, budget and personnel, land management, accessibility, and staff training and professional development needs. The 2019 survey included these questions and added 27 questions related to diversity, equity and inclusion (DEI), and evaluation questions related to utility of the 2015 survey report. The 2019 survey also included display logic, which allowed additional questions to populate based on prior responses. The 2015 and 2019 survey studies received approval by the University of WI- Extension Institutional Review Board.

Potential respondents were invited to participate in the web-based survey via email using an inventory of nearly 700 EEO leaders which was initially compiled in 2015 (Hougham et al., 2017) and updated again in 2019. The inventory represents an exhaustive effort to catalogue the range of professionals in the state of WI which engage in EE in some capacity and represents

the most complete inventory of EEOs in the state. The survey invitation was emailed to the inventory list three times within a three-month period for both surveys.

We compiled and analyzed closed-ended question responses using Microsoft Excel and SPSS (Version 25). Responses were reported in aggregate and the names of respondents and their organizations were not reported or identifiable in any reporting of the findings to protect confidentiality. A full report of the survey results is available for 2015-2016 (Hougham et al., 2017) and forthcoming for 2019. Here we highlight findings related to EA&I and PD which may be of interest to a broader audience, including extension professionals working in EE. Not all respondents answered every question due to display logic or choosing not to answer, therefore the number of responses for each question varies.

<center>Results</center>

A total of 695 organizations were invited to participate in the 2015 survey, resulting in 156 completed surveys and a response rate of 22.5%. At a 95% confidence level, the margin of error is 7%. For the 2019 survey, 695 organizations were invited to participate, and 193 individuals completed the survey, a response rate of 27.8% and a 6% margin of error at a 95% confidence level. While some report that a 5% margin of error for is acceptable for categorical survey data (Bartlett, Kotrlik, & Higgins, 2001), others report 'acceptable' as subject to the context. For example, Nulty (2008) and Dillman, Smyth, and Christian (2014) report that an 'adequate' margin of error is relative to the conditions deemed acceptable, with 'liberal conditions' consisting of a 10% sampling error and 80% confidence level, and 'stringent conditions' consisting of a 3% sampling error and 95% confidence level. Across both conditions, as the total number in the population being surveyed increases, the required response rate decreases. Given the relatively large known population from which we were drawing (nearly 700), a lower response may be within reason – indeed, the 'liberal conditions" would place 'acceptable' between 3% and 5%. For the purposes of this assessment we deemed the response rate and margin of error to be acceptable as they fall between the 'liberal' and 'stringent' conditions, however we are limited in our ability to assess a nonresponse bias – a limitation of this study that we address further in the discussion.

<center>Equity, Accessibility and Inclusion</center>

Comparing 2015 and 2019: While there are persistent areas of concern in terms of equity, accessibility and inclusion, there were also modest yet promising improvements when comparing 2015 to 2019 survey responses. For example, more EEOs reported serving groups with at least one person with a known disability in 2019 (21.2%) than in 2015 (18.7%). And while almost all respondents reported that their facilities and programs were accessible or somewhat accessible to visitors with disabilities in both 2015 and 2019 (Figure 1.1 and 1.2), the percentage of EEOs answering 'Yes' increased from 40.2% in 2015 to 43.6% in 2019. However, the percentage answering 'No' also increased – from 1% in 2015 to 6.8% in 2019.
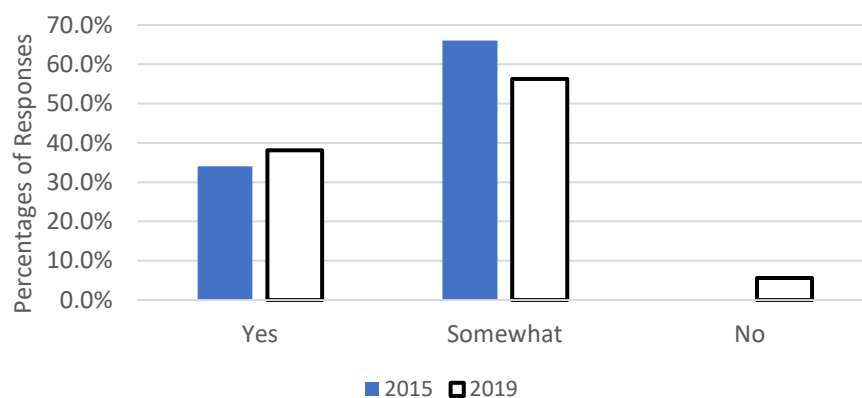
Figure 1.1

Question: Do you consider your facility to be accessible to visitors with disabilities?
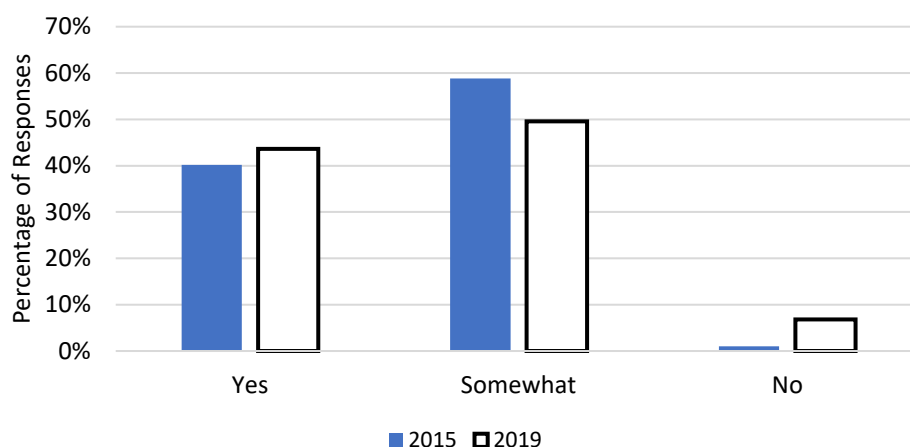
Note. 2015 (n=97), 2019 (n=117).

Figure 1.2

Question: Do you consider your programs to be accessible to visitors with disabilities?


Note. 2015 (n=103), 2019 (n=126)

The percentage of organizations that had previously conducted a physical accessibility survey at their sites went from 25.6% on the 2015 survey to 42.4% on the 2019 survey. Activity ideas for learners of varying abilities in some of the curriculum or lesson plans was reported by 84% of respondents on 2015 survey and by 94% of respondents on the 2019 survey. More respondents reported a higher organizational priority on increasing program and facility accessibility at their sites on the 2019 survey than on the 2015 survey (Figure 1.3). For both surveys, the most common accessibility-related training that staff received focused on ways to encourage communication and interaction among all participants, learning disabilities such as Attention Deficit/Hyperactivity Disorder, and physical disabilities.

Figure 1.3

Question: What level of priority does your organization place on increasing program and facility accessibility at your site?
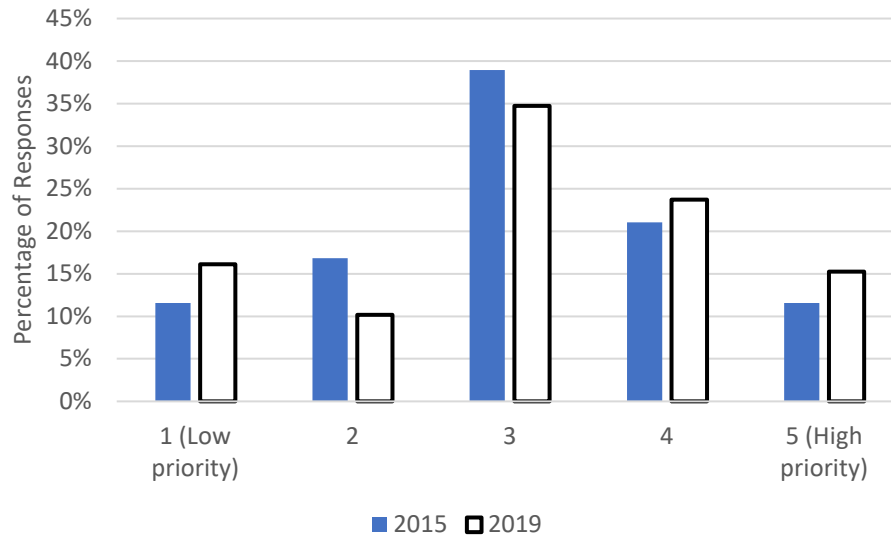
Note. 2015 (n=95), 2019 (n= 118).

When asked about the level of priority their organization places on increasing diversity, equity and inclusion (DEI) on a scale of 1 (low priority) to 5 (high priority), 57.9% of respondents selected a '4' or '5'. Respondents were asked to describe their organization's commitment to diversity on a 5-point Likert-type scale: 73% of respondents agreed or strongly agreed that their organization was committed to diversity, while 21.6% felt neutral towards their organization's commitment. Only 50% of respondents reported that their organization provides trainings on DEI.

Professional Development

Survey questions relating to professional development asked respondents to identify both skills and subject areas with which they would benefit from further training. For both surveys, the professional development section was divided into three parts: EE training needs, organizational skills training needs, and logistics for scheduling training events. When asked about limitations to attending trainings, cost and time were the main limitations reported on both surveys. 'People with disabilities' was the group most organizations wanted training to focus on in both 2015 and 2019.

Environmental Education Training Needs: On the 2015 survey, organizations reported that staff would benefit the most from trainings on using technology in outdoor education and using STEM as a context for environmental education (Table 1.1). In 2019, the training topics that organizations indicated they would benefit the most from remained similar to 2015, with the addition of sustainable design/green technologies for buildings in the top 5 for 2019 (Table 1.1). Respondents reported feeling most comfortable leading trainings on plants (33.7%) and natural history (31.7%).

Table 1.1
Top Five Subject Areas for More Training in 2015 and 2019

2015			2019		
Subject Area	Count	Percentage	Subject Area	Count	Percentage
Technology use in outdoor education	68	67.3%	Using STEM as a Context for Environmental Education (E-STEM)	50	45%
Using STEM as a context for environmental education (or E-STEM)	62	61.4%	Technology Use in Outdoor Education	48	43.2%
Community-based learning	50	49.5%	Understanding School Initiatives, Speaking School Language	41	36.9%
Understanding school initiatives, speaking school language	46	45.5%	Community Action/Service Learning	40	36%
Birds	43	42.6%	Sustainable Design/Green Technologies or Buildings	39	35.1%

Note. 2015 (n=101). 2019 (n=111).

Organizational Skills Training Needs: Organizations wanted more training in the same skill areas in 2019 as they did in 2015, with accessibility and inclusion as the main area (Table 1.2). Organizations indicated they felt more comfortable leading trainings on skills that they had mastered from their daily operations, such as group/classroom management and interpretive skills/instructional methods. In 2019, field/outdoor safety was a more common response than program development, which was more commonly reported in 2015.

Table 1.2
Organizational Skill Areas Identified as Needing Further Training

2015			2019		
Organizational skills area	Count	Percentage	Organizational skills area	Count	Percentage
Accessibility and inclusion of people with disabilities	63	67.0%	Diversity, equity and inclusion	56	55.4%
Grant writing	50	53.2%	Grant writing	54	53.5%
Fundraising	48	51.1%	Fundraising	49	48.5%
Digital presence/website/facebook/twitter/etc.	44	46.8%	Digital presence/website/facebook/twitter/etc.	44	43.6%
Volunteer management	44	46.8%	Volunteer management	43	42.6%

Exhibit development	41	43.6%	Exhibit development	40	39.6%
Public relations/marketing	39	41.5%	Public relations/marketing	40	39.6%

Note. 2015 (n=94), 2019 (n=101).

Discussion

Equity, Accessibility, and Inclusion

Given the historic and persistent lack of diversity in EE, an assessment of the current status of EA&I Is essential for strategic action. Our survey was administered to a comprehensive inventory of EEO leaders in the state of Wisconsin and can serve as a snapshot of the state of EE in Wisconsin in 2015 and 2019. Our findings suggest a modest trend toward increased awareness of EA&I issues. For example, more organizations reported people with disabilities as being part of the audience they serve in 2019 compared to 2015. Similarly, more organizations reported that their facilities and programs are accessible to people with disabilities. However, 2019 also saw an increase in the percentage of respondents who indicated that their facility was not accessible to visitors with disabilities, which may indicate that EEO leaders are more aware of accessibility requirements, or that the 2019 survey sample included more respondents from inaccessible facilities. Regardless, it identifies a potential need for infrastructure improvements for some small (though perhaps larger) percent of EEOs in Wisconsin.

Our findings also showed a high demand for more training on working with people with disabilities, which is in alignment with the findings of recent studies (Children & Nature Network, 2016; Taylor-Winney et al., 2019). Despite indication of organizational support for DEI, we have identified a gap in training which remains unaddressed, indicating a need for EEOs to move past recognition and toward enactment through practice (Warren, Roberts, Breunig, & Alvarez, 2014). Cultural competency trainings are one of many ways organizations can affirm their commitment to DEI (Warren et al., 2014). Other examples are to ensure inclusive hiring practices (Johnson, 2019), enacting culturally-responsive pedagogy and practices (Gruenewald, 2014), and incorporating environmental justice-oriented and community-based content (Warren et al., 2014).

We believe that EA&I should be prioritized as an area for future investigation, and there are gaps in knowledge and opportunity for deeper understanding of challenges and needs. For example, our survey did not ask about hiring practices. Future surveys may wish to take a participatory approach in developing a survey instrument which is better able to capture data relevant to understanding AE&I issues in the state of Wisconsin.

Professional Development

Survey findings indicate that traditional EE subjects remain the most comfortable subject areas for EEO leaders, and newer subjects – e.g. tech, integrated E-STEM – were unfamiliar for many respondents. The top five subject area training needs identified in the 2019 survey indicates a trend toward integration of EE with technology, STEM, and sustainable design/green technologies

for buildings. This demand is not surprising, as technology use continues to create digital tension in the field (Greenwood and Hougham, 2015).

Responses about organizational skills indicated that assistance with organizational management and operation is a high priority. The demand to learn skills such as grant writing, speaking 'school' language and ways to acquire funds for projects was slightly more important to respondents of the 2019 survey. Strategic capacity-building efforts for EEOs should focus on these areas.

Recommendations

In addition to the areas of further investigation related to AE&I, we recommend that future work investigate the challenges and issues identified here through other means, such as through focus groups or interviews. More information would help to triangulate the findings and enhance validity issues inherent to this type of survey study. We also recommend strategic action teams (Argabright et al., 2019) as an approach to addressing the identified issues and challenges.

Limitations and Future Work

Efforts to Increase Response Rates: In addition to sending multiple email invitations to take the survey, a strategy recommended by Dillman et al. (2014), we implemented an additional strategy to increase survey completion for the 2019 survey. We used display logic in Qualtrics, which decreased the number of questions a person would potentially have to answer by tailoring questions that matched their selected job responsibility. For example, only those who indicated financial reporting responsibilities as a part of their work description were required to answer questions related to budgets. This ensured that respondents only needed to answer relevant questions and shortened response time for some participants.

Response Bias: While it is certainly possible that survey respondents are systematically different from the total population of EEO leaders in the inventory, it is difficult to verify as we have little data on the EEO leaders in the inventory. However, given that our survey was web-based, it may inherently result in a bias toward those who are more technologically capable, or who spend more time working at computers, and the findings should be interpreted with this in mind. For this reason, future status and needs assessments might consider using multiple methods of surveying to address this potential bias and potentially boost response rates.

Conclusion

These findings have immediate application and implications for Extension educators in Wisconsin. EEOs in Wisconsin can use the findings to develop more strategic approaches to professional development. We feel that Extension professionals can play an important role in meeting these professional development and capacity needs, for example through the establishment of partnerships between formal and non-formal educators (Bainer et. Al, 2000).

Results from this research have already had positive impacts on Wisconsin EE organizations. The state Environmental Education affiliate organization, Wisconsin Association for Environmental Education, now actively recruits and promotes sessions at their conferences that

address the environmental content and organizational management needs identified by our survey.

Our survey can serve as a model for similar projects. Although our project focused only on EE organizations located in Wisconsin, there is opportunity for Extension professionals in other states to extend this work by implementing similar statewide or regional surveys.

Acknowledgments

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A Call to Action

Please Mind the Gap: How Environmental Education Can Step Forward to Address the STEM Achievement Gap

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Introduction

Environmental Education is a broad field encompassing nature centers, school forests, outdoor education facilities, state and national parks among others. This diversity of organization type allows for wide engagement by the public and holds great potential for addressing achievement gaps in the formal education system.

Collective Impacts of Environmental Education Organizations

Environmental Education organizations have more power than they realize to affect change. For example, in Wisconsin, Environmental Education organizations employ over 3,100 educators, serve 1.1 million user days of education in the field, and represent over $40 million in direct economic activity. The collective impact of this industry is significant. We advocate for other states and regions to take a similar approach to quantifying the field in order to leverage support and ultimately, affect change. Part of addressing the STEM achievement gap will lay in making the environment an integral part of the approach, while yet another part of addressing this gap will be advanced by focusing the collective impact organizations to build capacity. The work we will go on to describe here has proven valuable and eye opening- we also will lay out some of the steps to replicate this in other states. Doing so is a matter of environmental justice, a call to which many environmental organizations are responding.

Environmental Education to address STEM achievement gaps

Science, Technology, Engineering and Math (STEM) education does not have equal outcomes among different demographic groups. Racial disparity in science education is an issue nationwide. The 2015 NAEP science assessment noted statistically significant gaps in achievement for U.S. students that identified as black and Hispanic compared to those who identified as white (National Center for Education Statistics, 2015). As an example, Milwaukee, Wisconsin has the greatest STEM achievement gap in the country (Richards, 2016). Nationwide, schools that serve predominantly black and Hispanic students are less likely to offer higher-level science courses

(U.S. Department of Education, Office for Civil Rights, 2016). All of these facts demonstrate an educational system that fails students of color in STEM.

The pedagogical practices of environmental education have proven to be an accessible approach to science learning for youth of different backgrounds and is thus uniquely poised to address the STEM achievement gap. The field of environmental education encourages students to observe and connect with a place in order to learn. Dominant strategies for teaching include place-based education and an inquiry approach. Place-based education allows students to forge meaningful connections between STEM content, students' daily experiences and to observe the environment around them (Land & Zimmerman, 2015; Greenwood & Hougham, 2015). These field and inquiry-based approaches in STEM have better educational outcomes for low achieving youth (Blythe et al., 2015). Field experiences have also shown to increase confidence for underserved student populations (Hougham et al., 2018).

However, the field faces its own gaps of knowledge and historical bias. For the environmental education industry to effectively address the nation's STEM achievement gap, environmental education organizations must understand their position and progress in addressing issues related to diversity, equity and inclusion (DEI). This includes, but is not limited to, the increase of positive representation of minorities and other underrepresented groups, as well as teaching in a more culturally conscious and responsive manner. This paper will focus on Wisconsin, which faces some of the largest STEM education gaps, and how the lessons learned from a status and needs assessment and the work currently underway to address those findings could be applied to the nation.

Methodology

In the winter of 2015-16, a digital survey was distributed to environmental education organization leaders around the state of Wisconsin. Our goal was to investigate the statewide status surrounding relevant topics within environmental education such as land management, professional development, visitation trends, budgets, diversity, equity and inclusion and identify organizational needs in these focus areas. In 2019, we updated and re-ran the survey, intending to update and improve our understanding of the status and needs of environmental education in Wisconsin. This article is focused on the enhanced component of the survey questions about diversity, equity and inclusion. Here, we present the set of questions from our 2019 DEI section of the survey to lay out our approach, and also to encourage the use of similar question sets in other states and regions.

The following questions were developed to address diversity, equity and inclusion in our field, defined in consultation with August Ball, Founder/CEO of Cream City Conservation & Consulting LLC. We understand the definition of diversity, equity, and inclusion and its meaning can take different forms. For the purpose of this survey we asked that respondents consider the following definition in their answers:

Diversity: Differences that make a difference.

Equity: A process of ensuring everyone has access to what they need to thrive

Inclusion: Celebrating, welcoming and valuing differences.

1. Please estimate the percentage of groups that visit your site or programs that include at least one person with a known disability.
2. Please check all areas of training provided to your environmental education instructional/ program staff on working with persons with disabilities.
3. Do you consider your facility to be accessible to visitors with disabilities?
4. Do you consider your programs to be accessible to visitors with disabilities?
5. Have you conducted a physical accessibility survey of your site?
6. Does your curriculum or lesson plans include activity ideas for learners of varying abilities?
7. Do your curriculum or lesson plans include activity ideas for learners from different cultures or backgrounds?
8. What level of priority does your organization place on increasing program and facility accessibility at your site?
9. What level of priority does your organization place on increasing diversity, equity and inclusion at your site?
10. What is the estimated demographic distribution of your staff?
11. Select the answer that best fits your organization.
    a. This organization is committed to diversity.
12. Please read the sentences and select the answer that best fits your organization.
    a. These questions were taken from the Diversity Survey (2014) by the Society for Human Resource Management.
    b. There is cultural and racial diversity among the people a job candidate will meet/see on their first visit to the organization.
    c. There is cultural and racial diversity among the people represented in our organization's marketing materials
    d. Employees from different backgrounds are encouraged to apply for higher positions.
13. Do you have resources and content available in other languages?
14. Does your organization provide trainings on diversity, equity, and inclusion?

Past iterations of this survey have had positive impacts for Wisconsin environmental education organizations. Solid data is needed to inform decision – making and programming. The closer the data reflect the local context of the industry, the more effectively educators, administrators and our supporters can respond to current trends. However, collecting this data is only one step towards changing the status of the work on the ground.

Results

193 EE leaders representing 173 EE organizations completed the survey. We asked these leaders to describe their organization in a number of ways. For example, whether the organization correlates school program to academic standards (75.3% - Yes), if they considered their location an outdoor tourist destination (44.0% - Yes) and if they regularly partner with other regional or statewide EE organizations (59.5% - Yes).

Of the 93.1% of respondents who considered their organization's facilities to be accessible or somewhat accessible to visitors with disabilities, half (50.5%) have never conducted an accessibility survey of their site. The most common accessibility-related training that staff receive focus on physical disabilities (65.1%) and ways to encourage communication and interaction among all participants (50%).

Figure 4.1
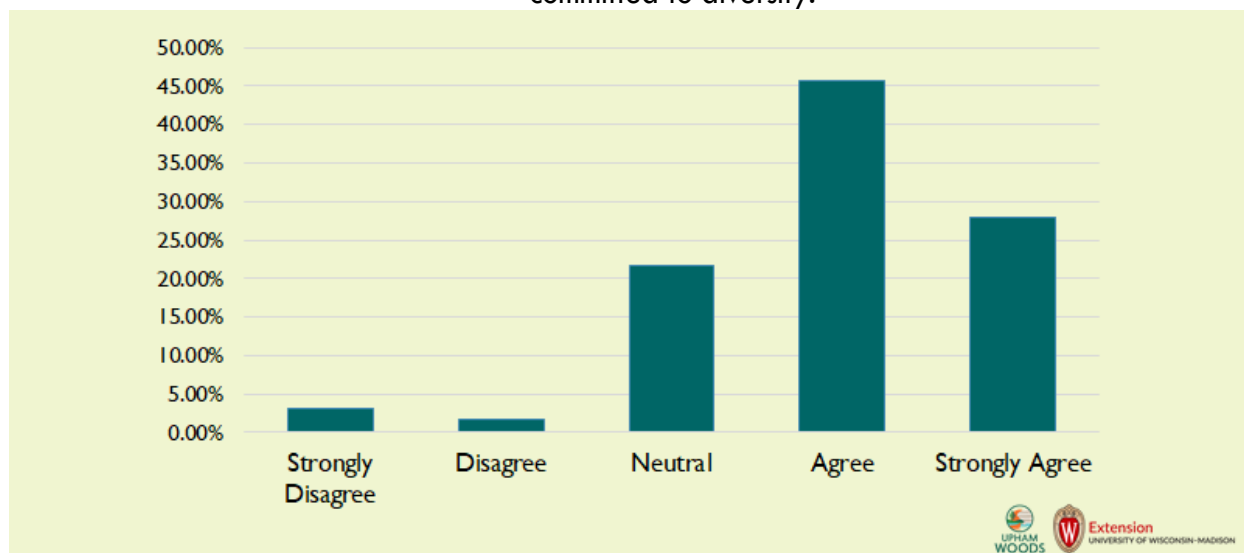Question: Select the answer that best fits your organization. "This organization is committed to diversity."

Figure 4.2
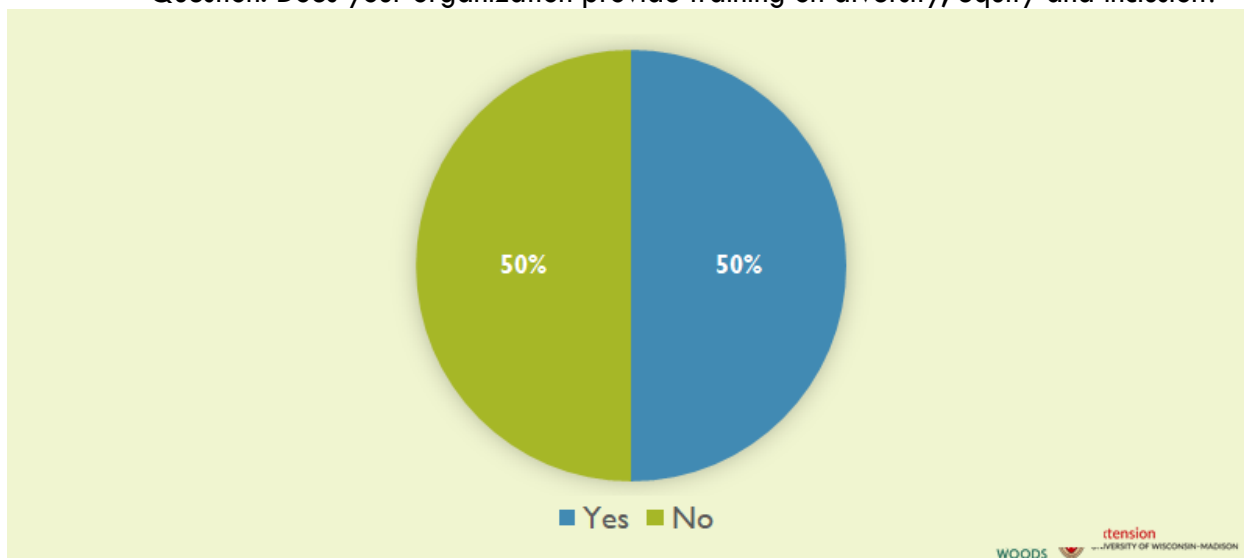Question: Does your organization provide training on diversity, equity and inclusion?
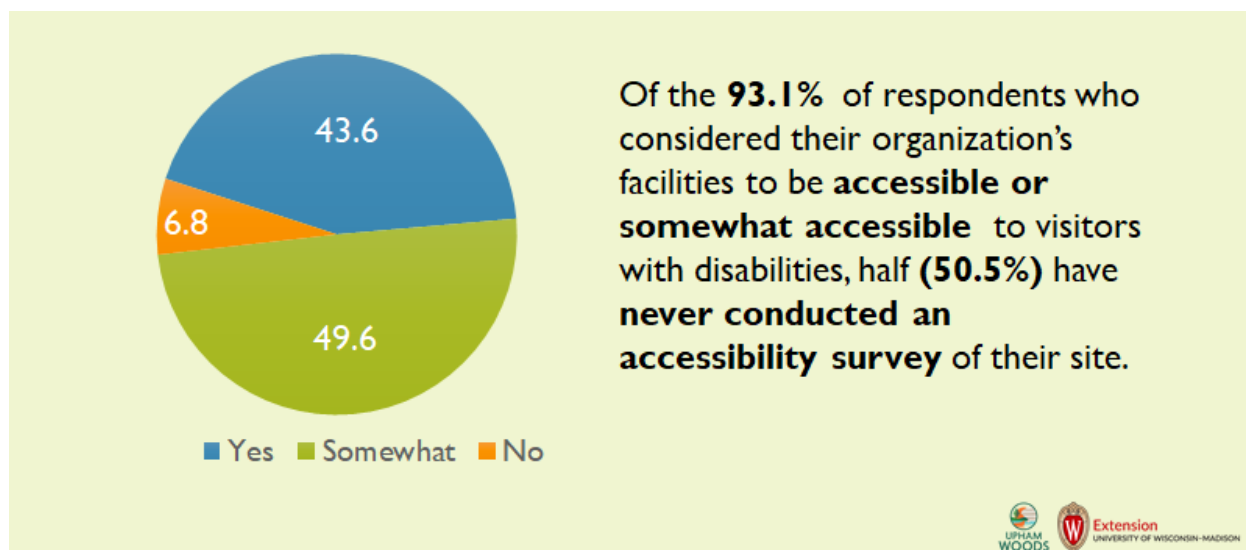
Figure 4.3

Question: Do you consider your programs to be accessible to visitors with disabilities?

Survey participants were asked which subject areas and organizational skills their staff would most benefit from additional training. Shown below are the most common responses:

Top EE Subjects Areas staff need

1. Using STEM as a context for EE (E-STEM)
2. Technology use in outdoor education
3. Understanding school initiatives, speaking school language
4. Community action/service learning
5. Sustainable design/green technologies or buildings' and 'Community-based learning'

Top Organizational Skills staff need

1. Diversity, equity and inclusion
2. Grant writing
3. Fundraising
4. Digital presence/website/Facebook/etc.
5. Volunteer management

Analysis: Perception vs Reality: the bubble around inclusion and environmental education

Solutions

The reported commitment by environmental organizations to DEI does not match the reported actions or steps they have taken towards DEI. For example, respondents from 56% of environmental organizations in the United States reported that trainings focused on diversity should be done (Taylor, 2014). In the Wisconsin status and needs assessment, only 50% of respondents reported actually conducting trainings related to diversity, equity and inclusion

(Hougham et al., 2019). Even then, "The small body of empirical research that does exist about diversity trainings suggests that current practices are largely ineffective over the long-term. Therefore, it is imperative to conduct needs assessments to determine what content should be done" (Beasley, 2017, p. 5). Spending time planning, executing and evaluating DEI trainings will be essential in moving this body of research forward and improving the professional development opportunities available to educators in the field.

At Upham Woods Outdoor Learning Center in Wisconsin, seasonal staff training includes a session on DEI. The session lasts approximately 5 hours and is spread out over 2 days. All levels of leadership were present - from the executive director to seasonal teaching naturalists - for a total of thirteen participants. Different levels of participation were encouraged; staff were given the opportunity to reflect individually and to participate in both small and large group discussions. The training used multiple forms of media including pictures, text, and videos in order to cite experts and incite discussion. Environmental justice framed the training so that our team could understand the larger picture and the role that environmental education could have on its participants. Environmental educators should empower learners to exercise their agency in creating better communities, which includes the environment in which those communities exist. More environmental organizations are embracing the focus on environmental justice in efforts to engage more diverse communities. For example, Camp ELSO (Experience Life Science Outdoors) in Portland, Oregon focuses programs on "grounding the youth experience in environmental justice while elevating the visibility and leadership opportunities for folks of color. " (Brown, 2019, p. 8). We looked at case studies that explore how environmental justice and environmental education intersect.

The training covered multiple topics such as the elements that make a space diverse, equity versus equality and how to respond to microaggressions as a bystander and as someone who experiences them directly. We talked about agency and how promoting others to exercise their agency creates more inclusive spaces. The training went beyond providing definitions and introductions to vocabulary words. Our staff discussed privilege and the role it has in addressing equity. We spent time talking about how access only approaches to broadening participation fails to hold dominant cultures accountable for the culturally exclusionary language that may exist within the programs they are providing access to (Bevan et ak., 2018). Participants then went through Upham's lesson plans and identified areas for improvement including how the lesson was framed and a critique of the content. This information was collected and will be used to improve our lessons.

We asked for feedback at the end of the training to help pus develop additional modules and activities for staff related to DEI during their contract. While staff training is an integral step towards inclusion, it cannot be the only time an organization supports discussions and activities focused on DEI. The goal of inclusivity needs to be reflected in an organization's policies, processes, paperwork and infrastructure. Continuous and intentional reflection of staff practices needs to become part of office culture. To create sustainable change we must confront a system that supports the oppression of certain communities and discontinue privileging privilege and focus on supporting those communities that have been historically neglected or oppressed.

For environmental educators, from a pedagogical standpoint, we must not only change what we teach, but be willing to change the ontological underpinnings in the transmission of knowledge. We must shift our role from experts sharing wisdom to members of a learning community with the Earth. This is particularly true for white educators working with marginalized populations, as the dominant culture needs to listen and empower rather than tell and control. Without doing this groundwork in DEI training, we fall into the trap of treating empowerment as giving a voice to the voiceless, rather than listening to those who haven't been heard. We must shift the notion of DEI as a need to that of an asset, and be willing to use this knowledge to help others create the change we cannot imagine.

Freire (1970) supported the notion that we are moving regardless, and we are either moving to keep the dominant paradigm or to transform it. What better catalyst for change than our urban youth, who are already fueled by being marginalized? Emdin's (2009) research found, "These students eagerly await opportunities to exercise this power in the creation of a foreseeable new future that is different from an oppressive present" (p. 242). The first question we must ask ourselves is whether our organizations simply want to share what we are doing with diverse audiences or are we eager to embrace this new future as well?

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Citations

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A copy of the questions is available upon request. Contact Dr. Justin Hougham at justin.hougham@wisc.edu

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