Climate Education Partners
SAN DIEGO REGION
For San Diego's Future

Climate Education and Opportunities:
Key Informant Interviews
for 2017 Collective Impact Summit

August 2017

Table of Contents

Project Overview

Climate Education Partners (CEP) conducted key informant interviews, following a tightly held protocol, to complement planning efforts for the 2017 Climate Education and Opportunities Collective Impact Summit. Interviews were conducted with national leaders from civic, business, philanthropic, and education sectors, as well as those representing climate action networks. Many of the interviewees have been invited to the Collective Impact Summit, which aims to provide a venue to share effective climate change education strategies, including related philanthropic and city efforts that support citizens, professionals, and other leaders (termed "Key Influentials"), to make informed decisions in their communities.

More specifically, the Summit Interview was intended to support the Summit Meeting by:

1. Utilizing survey data to inform Summit program/agenda and session focus that meet expectations and needs of attendees
2. Identifying the scope and breadth of attendees' current community of action on issues pertaining to the changing climate
3. Identifying the level of efficacy interviewees feel regarding their ability to mitigate and adapt to climate change
4. Gaining a clearer understanding of the values that motivate interviewees to engage in climate education, workforce development and actions in their communities
5. More broadly, helping to identify partnership opportunities and demand for educational strategies and program models from established organizations and, when relevant, identify opportunities for new educational programs/projects/resources for all related projects, including CEP.

The purpose of the current report is to provide the Summit organizing team data to inform their planning and agenda formation to best meet the expectations and needs of potential attendees.

Methodology

Organizers of the Summit and Climate Change Education Partner's (CCEP) Alliance team members, as well as colleagues of the Summit team members, recommended potential interviewees. Recommenders rated potential interviewees in level of importance and influence within their sector. All those rated as a "high priority" were first invited via email to participate in a 20-30-minute phone interview. Following this, those rated as a "medium priority" were invited. All interviews were conducted by the same CEP researcher (Christine Jaeger) and were both manually and audio-recorded for reference purposes. The University of San Diego provided IRB approval, and in compliance with the approved protocol, all interviewees were made aware that their responses would be kept anonymous and only described in aggregate.

Data are reported from 23 interviewees (30.4% female, 69.6% male) from the following sectors: civic (n = 8), education (n = 5), philanthropic (n = 4), climate action networks (n = 3); business (n = 2), non-governmental agency (n = 1). Interviewees region of work spanned from local (cities in the United States) to international.

Interviewees were asked a series of mostly open-ended questions and a few scale-item questions regarding their climate actions and knowledge, identity, values, and perceived efficacy in the first four sections of the interview. These sections reflect factors in the tripartite integration model of social influence (TIMSI; Kelman, 1958, 2006; Estrada et al., 2011, 2017), which assesses level of integration into a relevant social group or community (in this case, those leaders concerned about climate change). The greater the integration of a person into a group, the more likely they are to engage in the normative behaviors of that group or comply with group requests.

The fifth and final section of the Summit interview provided interviewees with a list of potential topics that could be incorporated into the Summit agenda. Interviewees were told the following:
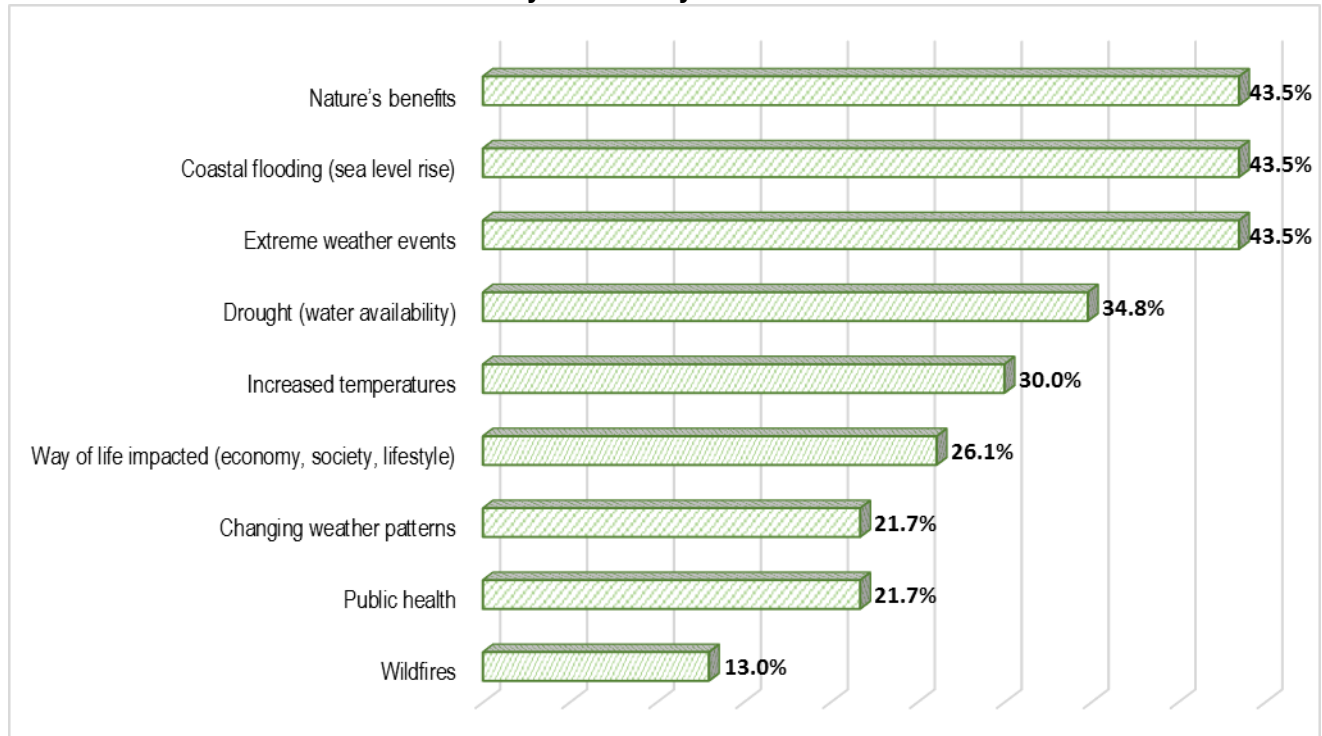
> *Now I will read a variety of topics that could be incorporated into the conference agenda. As I read through the topics, please consider whether it is a topic that would be useful to you and your work or not. If you would find it useful, please say 'yes'. If you do not think it would be very useful to you and your work, please say 'no'.*

Due to time restrictions, not all interviewees completed the final portion of the survey. Two interviewees did not provide any responses to this section and one interview responded only to the first eight items.

Responses to all questions were aggregated for analysis, to maintain the anonymity of the respondents. Common themes are drawn from open-ended response items and are presented as the percentage of interviewees that gave that answer. The majority of the questions asked were open ended. Where meaningful, non-identifying statements are included to convey additional detail in responses. Means, standard deviations, and ranges are reported for all scaled items.
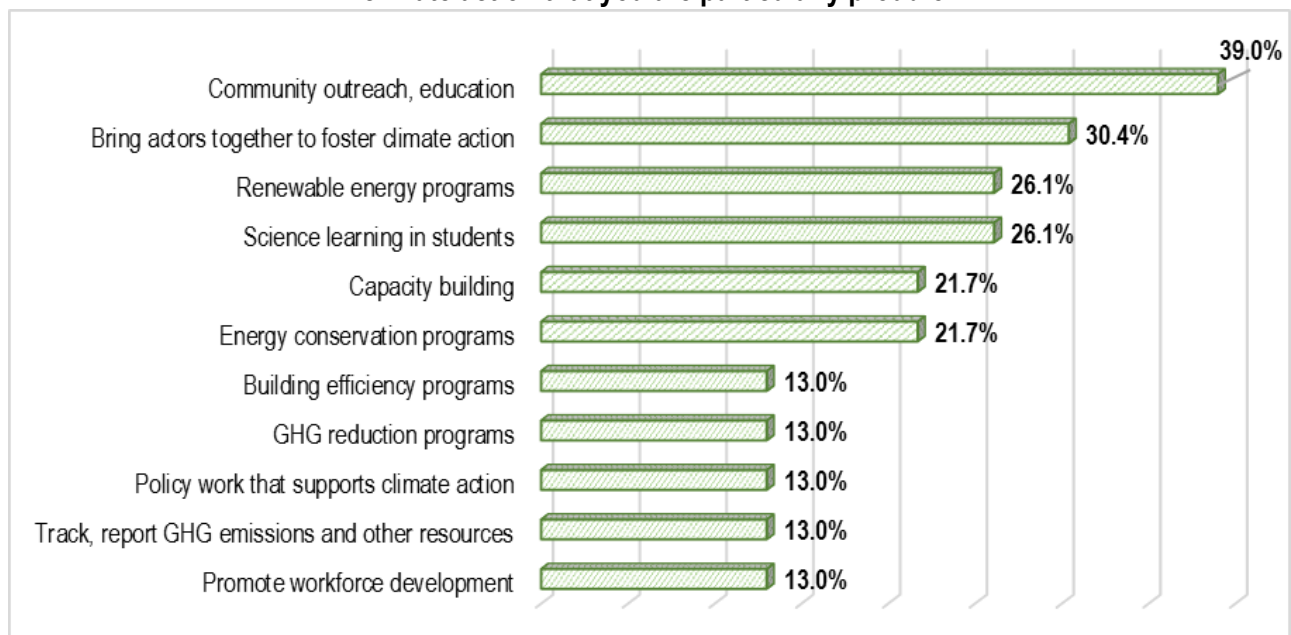
Section 1. Leader/Organization Behavior and Knowledge

What do you perceive to be the most significant impacts of climate change in the region in which you currently work?

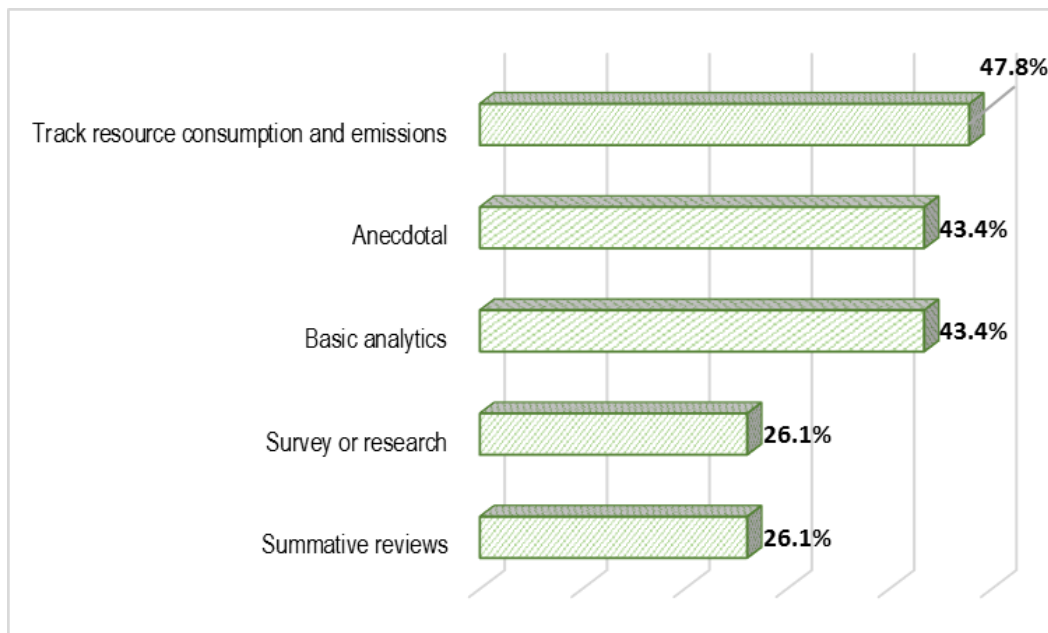| Category	Percentage
Nature's benefits	43.5%
Coastal flooding (sea level rise)	43.5%
Extreme weather events	43.5%
Drought (water availability)	34.8%
Increased temperatures	30.0%
Way of life impacted (economy, society, lifestyle)	26.1%
Changing weather patterns	21.7%
Public health	21.7%
Wildfires	13.0%

Note. Regarding extreme weather events, extreme precipitation events (26.1%), heat waves (17.4%), and hurricanes (4.3%) were cited. Here, "nature's benefits" refers to ecosystems and ecosystem goods and services.

What tools, strategies, or programs has your group/organization/city used to promote climate action that you are particularly proud of?

Category	Percentage
Community outreach, education	39.0%
Bring actors together to foster climate action	30.4%
Renewable energy programs	26.1%
Science learning in students	26.1%
Capacity building	21.7%
Energy conservation programs	21.7%
Building efficiency programs	13.0%
GHG reduction programs	13.0%
Policy work that supports climate action	13.0%
Track, report GHG emissions and other resources	13.0%
Promote workforce development	13.0%

How have you measured the impact of your work?

Most interviewees (47.8%) indicated that they tracked greenhouse gas emissions (including where emissions are generated) and resource consumption (i.e. traditional and renewable energies, water) within their city, building, or in their business logistics.

Many interviewees (43.4%) also indicated that they used soft and anecdotal measures, although craved quantitative measures. Of note, one respondent stated that they *would like to measure system resiliency and foundation steps towards it (knowledge enhancement, capacity building, what is learned and applied from collaborative networks). If you [conference conveners] could help in the development of those measures, it would be useful.*

Another 43.5% of interviewees stated that they used basic analytics to assess the impact of their work. They noted measuring audience numbers, types of audience, public speaking referrals, which educational programs and public talks were most demanded, and the number of policies enacted.

Survey and research methods were stated by 26.1% of interviewees, and included assessing interventions and educational programs, social network analyses, public polling, and surveying attitudes and knowledge, as well as feedback about events.

Likewise, impact measurement by way of summative reviews was mentioned by 26.1% of the interviewees. Dependent on the specific project, performance was measured against a goal (including fixed goals, such as percent renewable energy used, or comparative goals, such as economic gains in renewable energy industry compared to national standards).

Section 2. Leader/Organization Identity

To what extent do you identify as part of a community concerned about climate change,
from 1, do not identify at all, to 7, completely identify?
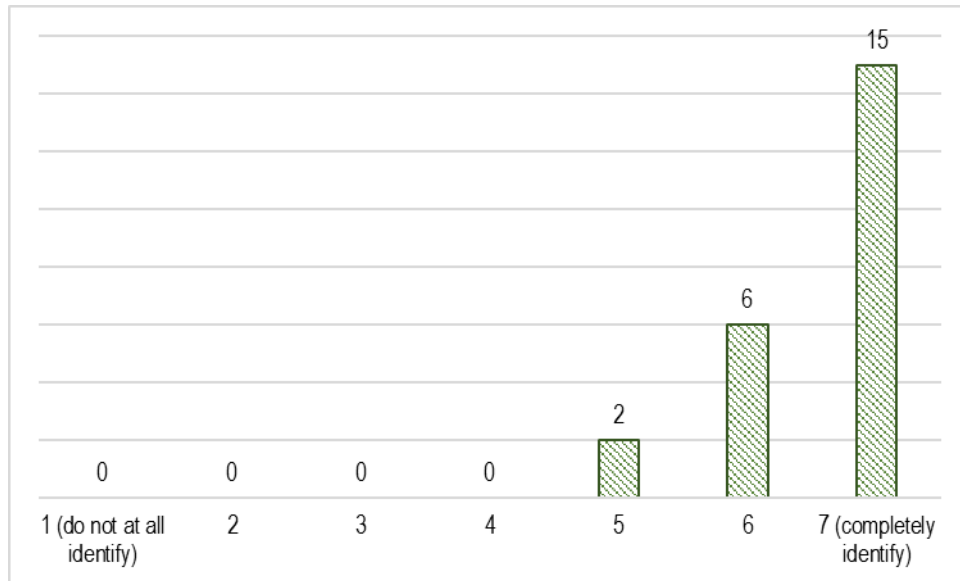
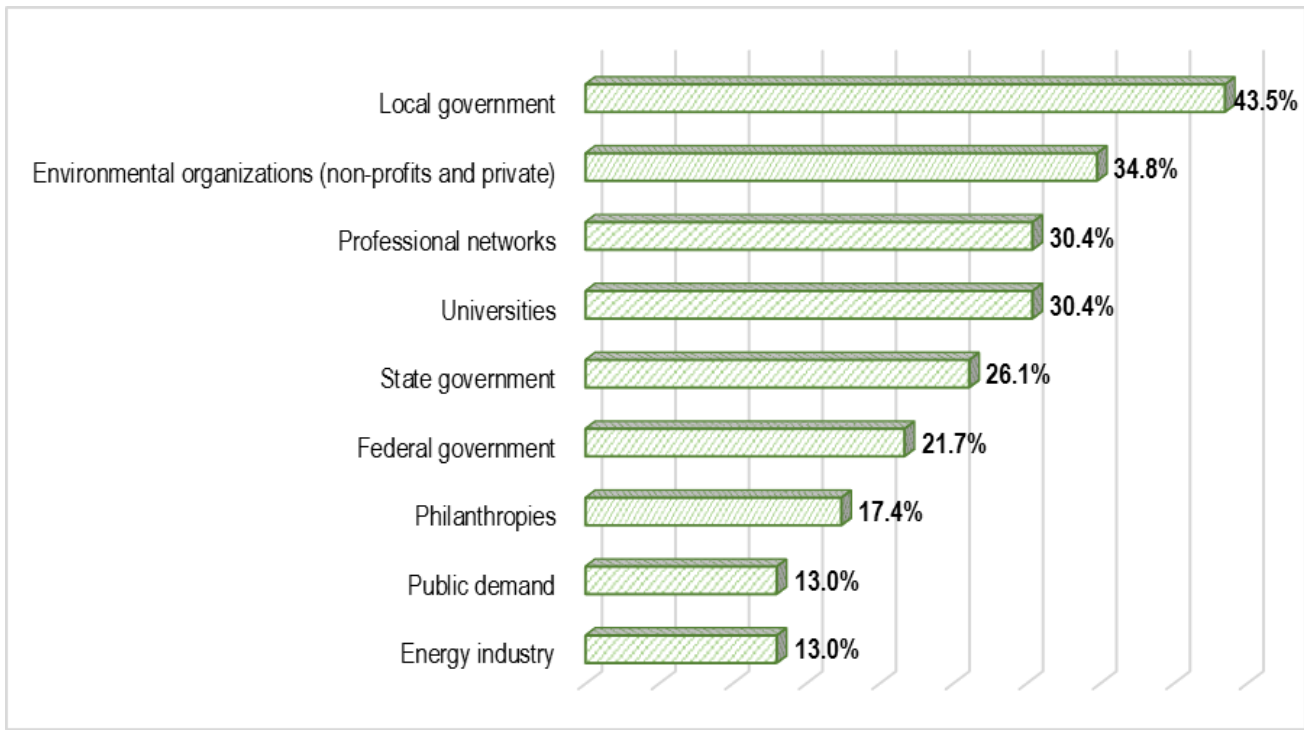*M = 6.57, SD = .66, Range = 5-7*

The interviewees were highly identified as part of the community concerned about climate change. No one rated themselves low on this scale.

How large is that community?
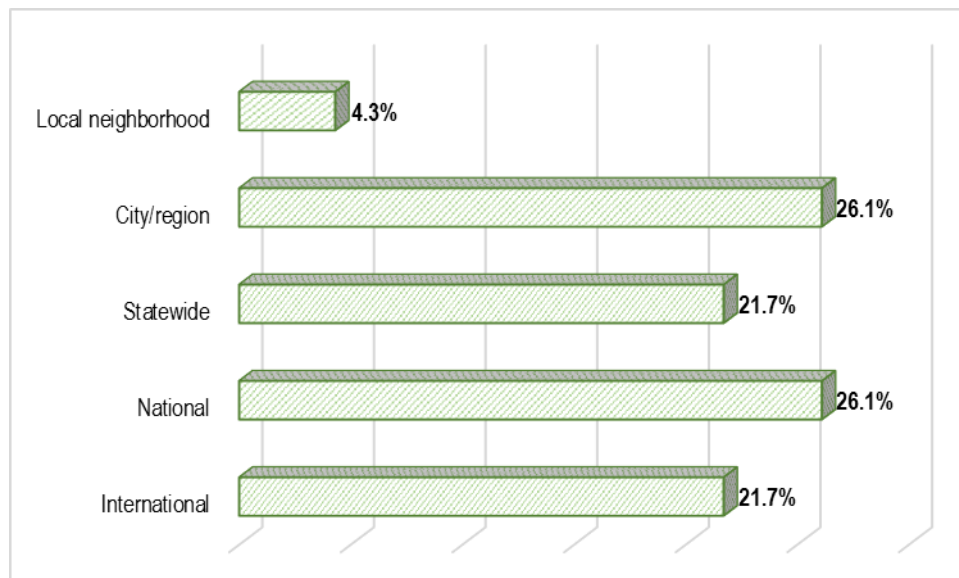
Note. Interviewees were asked to think about how large the community concerned about climate change that *they* identified with in geographic or regional terms.

Of the organizations and people that make up that community, which have helped you the most to achieve your goals?

| Category	Percentage
Local government	43.5%
Environmental organizations (non-profits and private)	34.8%
Professional networks	30.4%
Universities	30.4%
State government	26.1%
Federal government	21.7%
Philanthropies	17.4%
Public demand	13.0%
Energy industry	13.0%

Section 3. Leader/Organization Values

To what extent are you personally concerned about impacts of climate change, on a scale of 1, *not at all concerned*, to 7, *extremely concerned*?
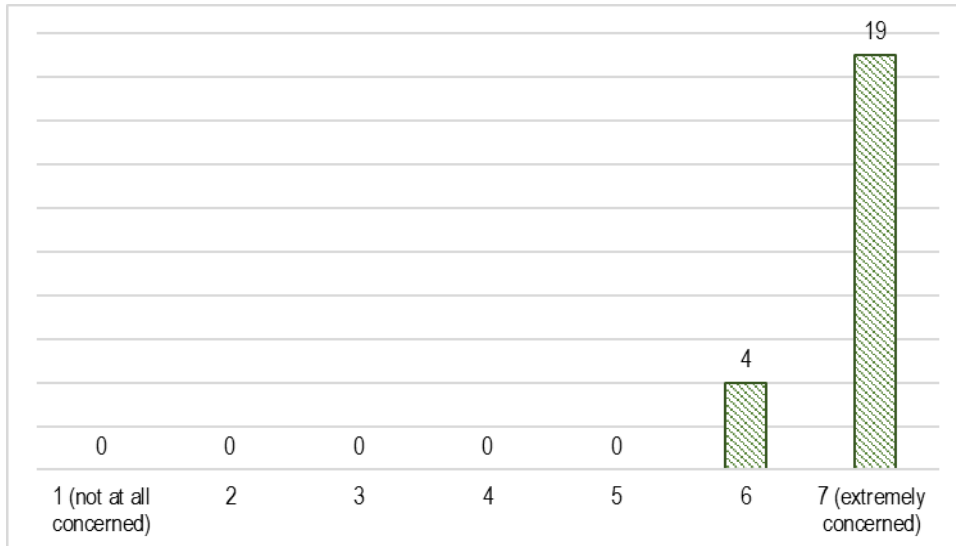
M = 6.83, *SD* = .39, *Range* = 6-7

The interviewees were highly concerned about the impacts of climate change.
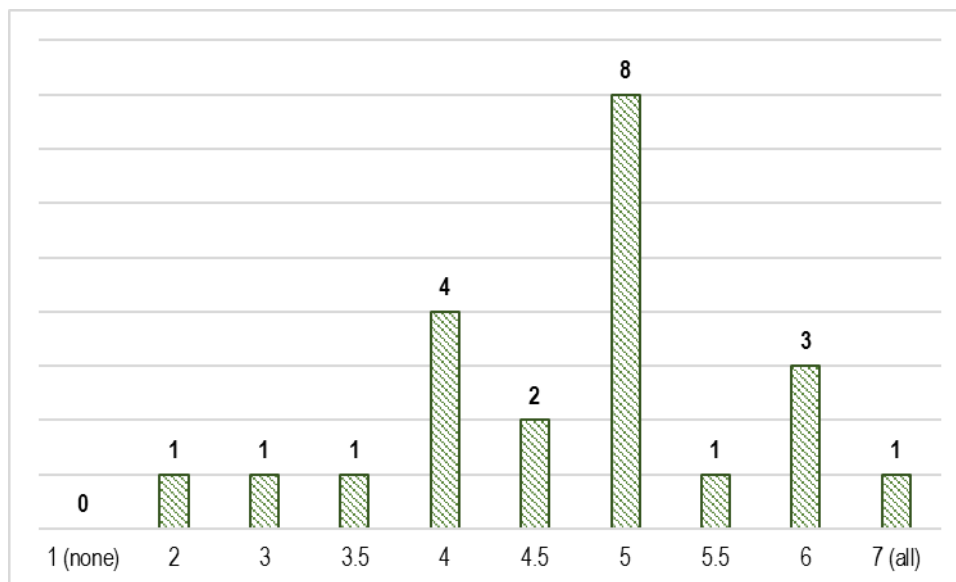
Why are you concerned?
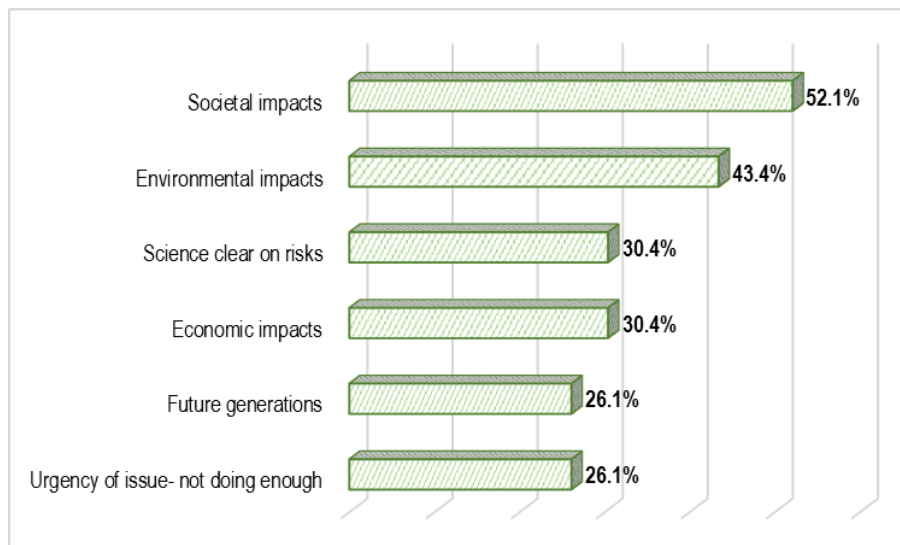
Most interviewees (52.1%) indicated some kind of societal impact (any type of harm to society and/or people, excluding economic impacts and impacts to future generations) as a reason for their concern. As one interviewee stated, [we] *don't really understand the ramifications that are coming. Political and social institutions are already under significant strain.* Likewise, environmental impacts (i.e., impacts to any natural system, including climate and weather) were often mentioned (43.4%).

Nearly a third of the respondents (30.4%) noted that the science was clear on the risks associated with climate change and their concern rose from the assuredness that those risks would manifest. Another near third of the respondents (30.4%) stated their concern over the economic impacts, one suggesting that significant strains would hit the economy well before environmental impacts devastated society.
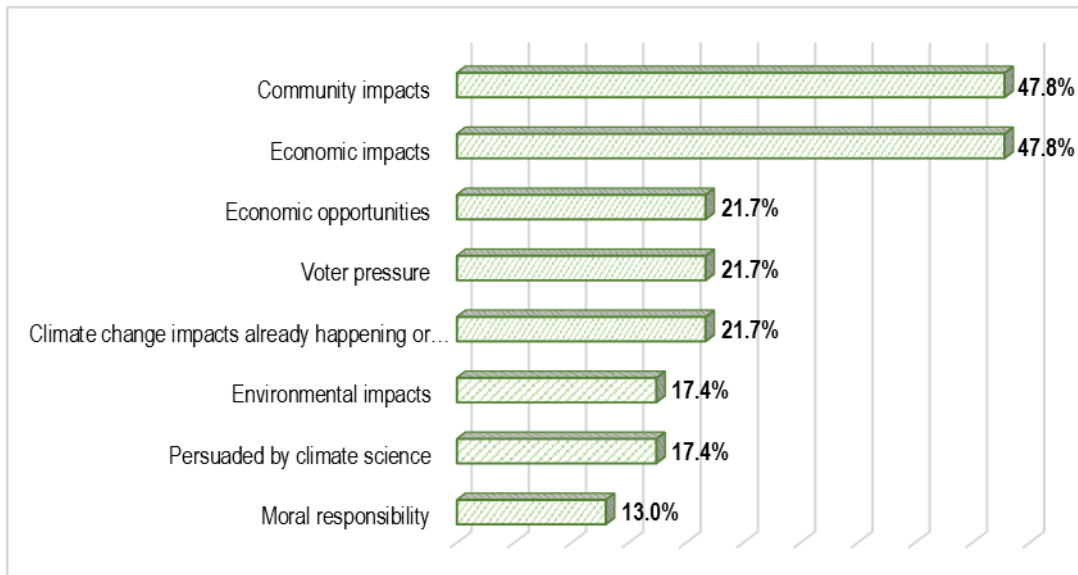
Over a quarter of interviewees (26.1%) indicated their concern arose from impacts to future generations, who would face more significant harm than current generations. Similarly, 26.1% of interviewees expressed that they were concerned because of the urgency of issue. As one respondent stated, *[it is] hard to get people to act because they do not feel like they can make an impact or that they will be impacted. So [he is] very concerned because we need people to act, and it is a challenge to get them to do so.*

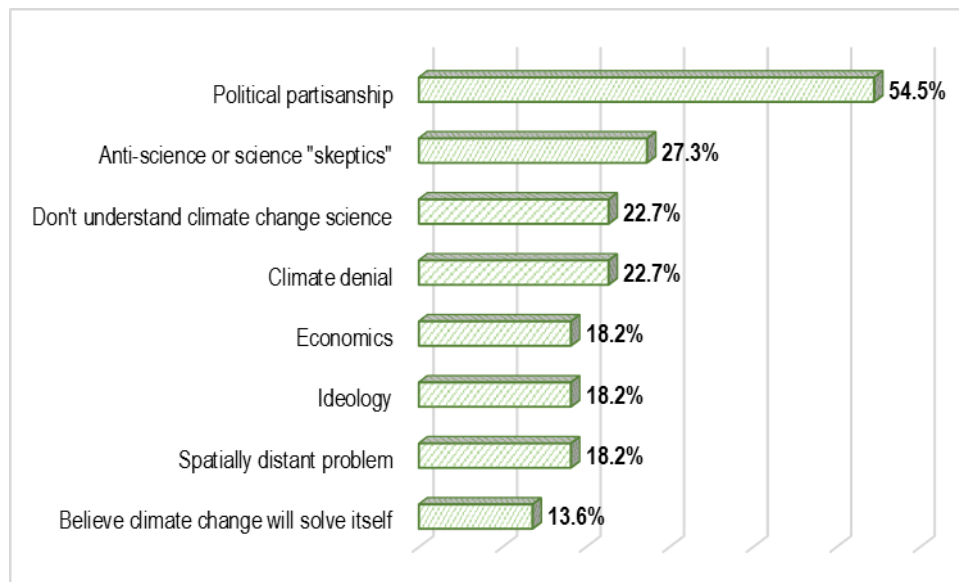**How many leaders in your city/region are concerned about climate change, from 1, *none*, to 7, *all*?**


M = 4.73, *SD* = 1.10. Range = 2-7

Why are they concerned?

- Community impacts — 47.8%
- Economic impacts — 47.8%
- Economic opportunities — 21.7%
- Voter pressure — 21.7%
- Climate change impacts already happening or… — 21.7%
- Environmental impacts — 17.4%
- Persuaded by climate science — 17.4%
- Moral responsibility — 13.0%

Why are they not concerned?

- Political partisanship — 54.5%
- Anti-science or science "skeptics" — 27.3%
- Don't understand climate change science — 22.7%
- Climate denial — 22.7%
- Economics — 18.2%
- Ideology — 18.2%
- Spatially distant problem — 18.2%
- Believe climate change will solve itself — 13.6%

Note. While most interviewees noted political partisanship as the factor behind a lacking concern over climate change, a few also provided a more detailed response and cited ideological reasons. Specifically, that climate change action often calls for an increased public sector and regulations, which conservatives believe may impact their personal freedom. Climate denial or downplay is beneficial to maintaining these "freedoms" from this respect.

What are the potential financial advantages to addressing the causes and impacts of climate change <u>now</u> in your region?
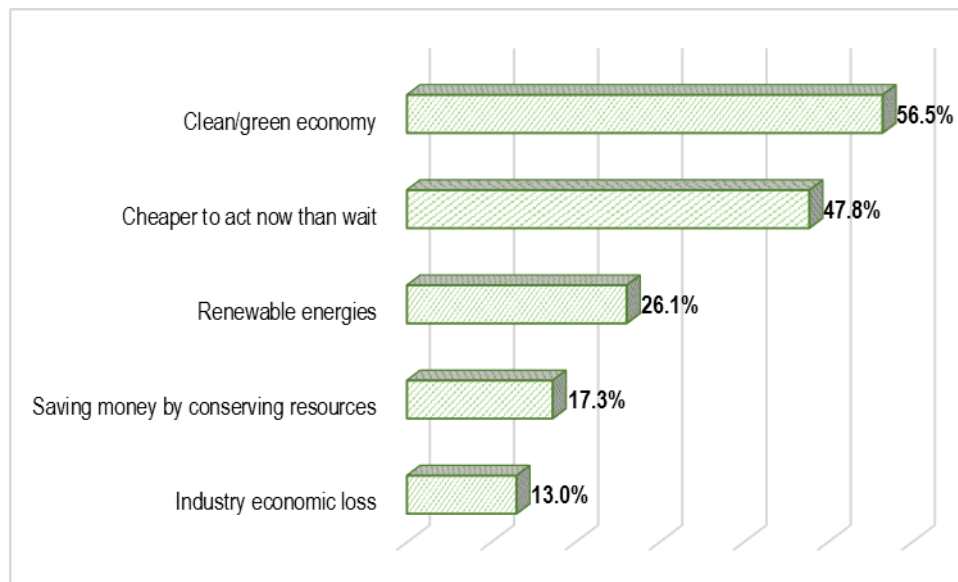

Most interviewees (56.5%) stated that building a clean/green economy (i.e., renewable energies, efficient technologies and adaptation business sectors) would be a significant financial advantage, especially for the cities/regions who are on the forefront of these business opportunities. Similarly, 26.1% stated renewable energies would be a financial advantage because these options are either less expensive or are soon-to-be less expensive than traditional sources of energy. One interviewee expressed some concern over the financial benefits of the clean/green economy. While he saw it as an economic advantage, he suggested that it could result in negative economic impacts: *[the] clean energy economy is hand-in-hand with the automized industry (although it does not have to be). An automized industry would take away jobs and displace workers, so it will be important to be mindful that the clean energy economy does not go this route.*

Nearly half of the interviewees (47.8%) stated that it would be cheaper to act now on climate change, than to wait. Respondents indicated that in terms of both reducing emissions and in investing in adaptation, now would be financially beneficial because increased emissions increase the extent of climate impacts, and investing in adaptation now will be cheaper than paying for climate induced emergencies, infrastructure repair, and adaptations later. As one interviewee stated, *[it will be] more difficult if we wait- more CO2 in atmosphere, more profound the effects of climate change will be. Starting now allows for planning and a systematic approach- we can budget for what is needed and give time for research to propel new ideas and strategies. The quicker we get going, the better the outlook.* One important limitation mentioned is that while fixing infrastructure investments in the future will be costlier, it is important that, *investments do not happen too soon as money will be held up in investments that are not in use because impact hasn't occurred.*

Lesser mentioned, but still common was noting of financial advantages to addressing the causes and impacts of climate change now also included that reducing resource consumption (i.e., energy, water) now would lead to immediate financial savings (17.3%). Additionally, 13% of interviewees said we could avoid future economic losses from climate change impacts.

Section 4. Leader/Organization Efficacy

To what extent can your group/organization/city work towards addressing the causes and impacts of climate change in the next year, from 1, *not effective*, to 7, *extremely effectively*?

M = 4.91, *SD* = 1.12, *R* = 2-7
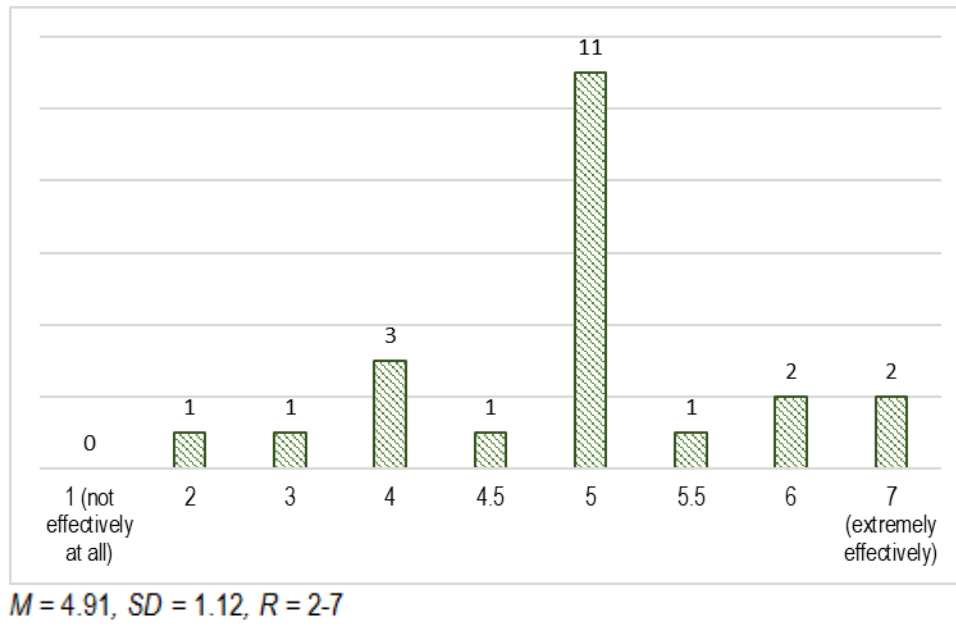
There was more diversity in the amount of efficacy (i.e., ability to address the causes) reported with some not feeling much efficacy at all. This is a common experience among those who care but feel unsure what can be done in response to the changing climate.

What would help your group/organization/city to be more even more effective?
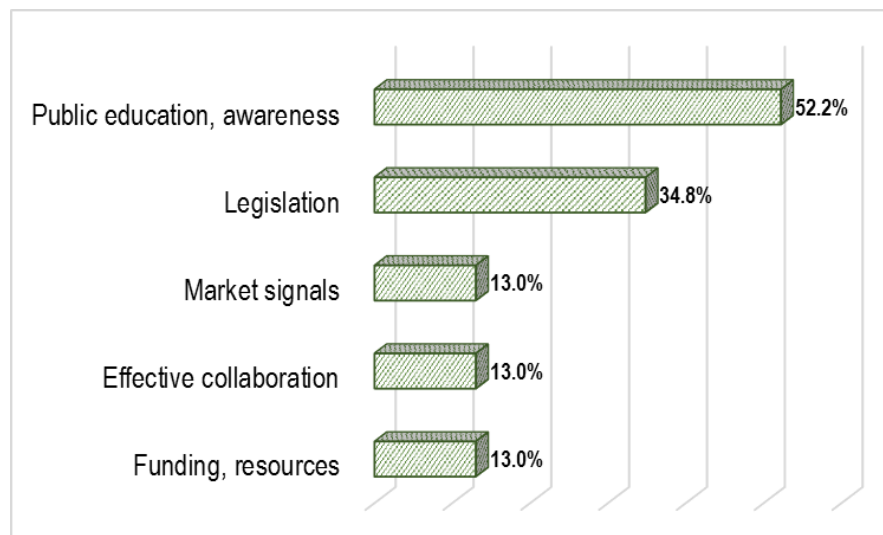
Note. Market signals refers to cap-and-trade and increasing prices of fossil fuels to reflect the "true" cost of these products.

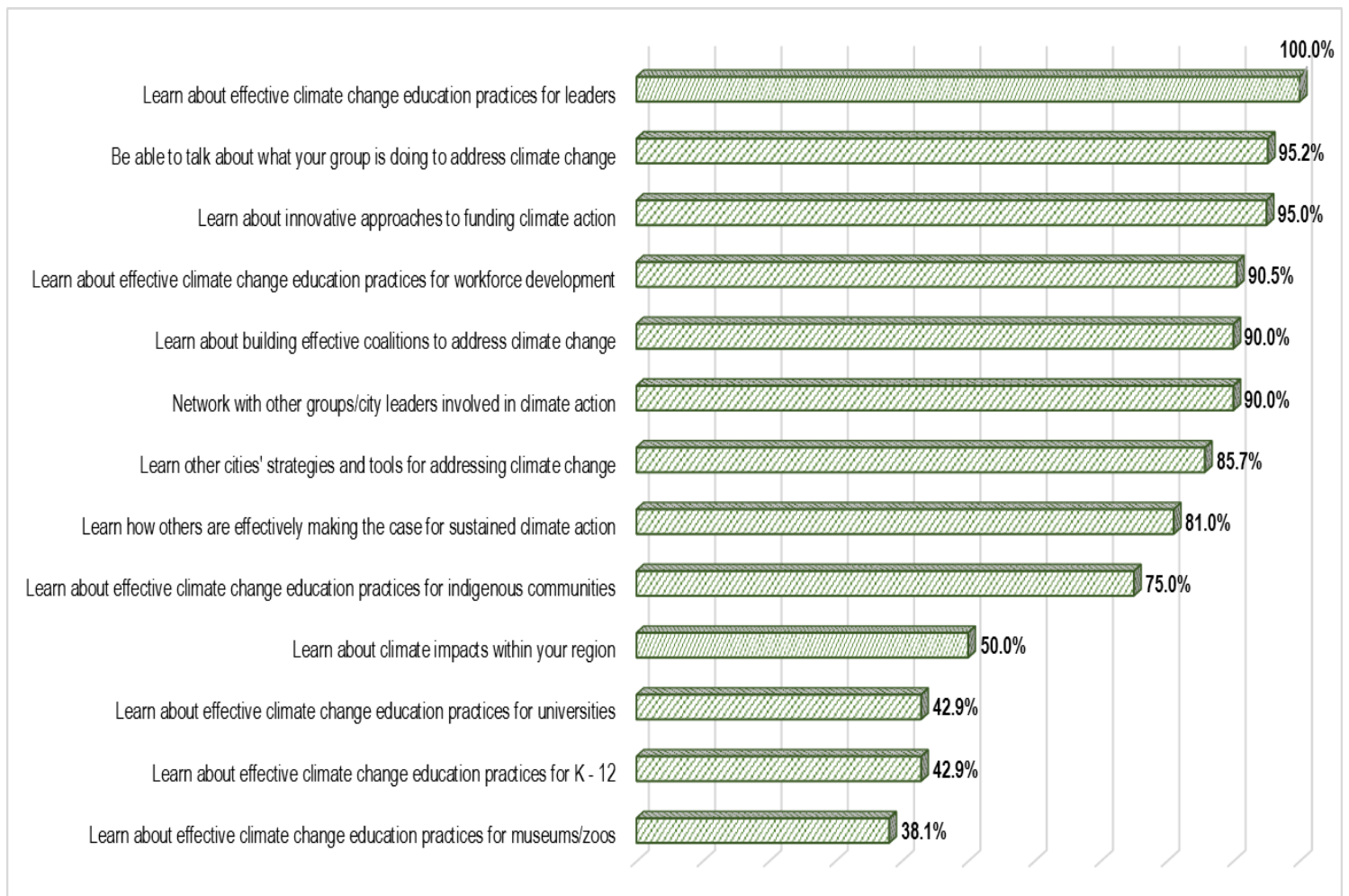**For your region, what types of partnerships will be essential for effective climate action over the next few years?**

Government — 73.3%
Industries — 53.3%
Universities — 40.0%
Professional networks — 26.7%
Collaboration across all sectors — 20.0%
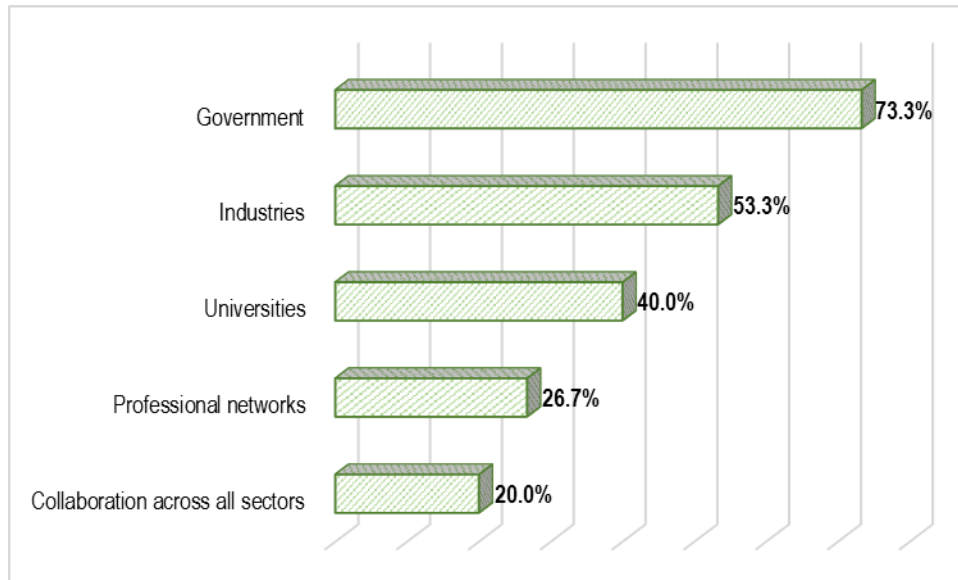
Section 5. Final Questions.

Interviewees responses are aggregated and presented as a percentage of the number of interviewees that would find a given topic useful. Most topics were viewed as highly useful to interviewees, although support for learning about some education practices was less evident. Importantly, interviewees were asked what topics would be useful to them and their work. Lower ratings could be interpreted as interviewees not seeing a clear connection between their work and a topic.

Potential Summit Topics of Interest

Topic	Percentage
Learn about effective climate change education practices for leaders	100.0%
Be able to talk about what your group is doing to address climate change	95.2%
Learn about innovative approaches to funding climate action	95.0%
Learn about effective climate change education practices for workforce development	90.5%
Learn about building effective coalitions to address climate change	90.0%
Network with other groups/city leaders involved in climate action	90.0%
Learn other cities' strategies and tools for addressing climate change	85.7%
Learn how others are effectively making the case for sustained climate action	81.0%
Learn about effective climate change education practices for indigenous communities	75.0%
Learn about climate impacts within your region	50.0%
Learn about effective climate change education practices for universities	42.9%
Learn about effective climate change education practices for K - 12	42.9%
Learn about effective climate change education practices for museums/zoos	38.1%

Interviewee Suggested Topics.

As a final question, interviewees were asked, *"are there any other topics that you can think of that would be particularly useful to you and your work?"*. Similar responses were aggregated into topical categories below.

Best Practices.

Six interviewees suggested that a focus on best practices in outreach and communications from various sectors would be useful to them and their work. As one interviewee expanded, they would also like to know *"what efforts have not worked-* [what efforts were] *not as successful as they thought they would be. And especially, what might people do differently given the new political climate."* Another, emphasizing learning from all sectors, indicated that they wanted to learn more about *"not just cities' work, but also what companies and businesses are doing to address climate change".*

Training.

Seven interviewees mentioned training and education topics as useful. Most generally, one interviewee thought a topic reviewing, *"national and international trends. Table setting as far as that goes".*

Similarly, two respondents believed that knowing more about upcoming technologies would be most useful to them and their work as it, *"allows for time to get funds and invest when tech becomes available and incorporate into city planning".*

Another two respondents cited frustrations and failures in working with those that did not prioritize climate change work or were skeptical about climate change impacts. These interviewees suggested that learning about *"how to communicate with those who don't believe in a climate change in a constructive way* [and] *working with them to understand how climate change will affect them"* and *"how to persuade people with different points of view"* would be very useful to them and their work.

One interviewee suggested learning about media strategy best practices, *"how best to convey work to the public through media"* would be most useful to engaging the public.

Finally, one interviewee suggested that learning how to create effective policies would essential to promoting climate action, stating it was important to learn how to *"build comprehensive policy frameworks across jurisdiction boundaries that really move the needle".*

Managing Educational Roadblocks.

Finally, two interviewees discussed the difficulties teachers and curriculum creators face in incorporating climate change education into the curriculum. Between resources, time constraints, competing priorities, educational policies, and legislation, educators face significant roadblocks in getting climate change education into the classroom.

Final Questions Summary.

Regarding potential Summit topics, a final note from one interviewee. The interviewee expressed in detail that in the climate change field, there are many competing events and, for an event to be worthwhile, it must be clear and cohesive in its agenda. Regarding some of the topics, the interviewee indicated that he would not be interested without knowing more topical detail. For instance, when asked whether networking with other groups and city leaders involved in climate action would be useful, he responded *"no, not unless he knew who he would be networking with and about what. Networking just to network would not be worthwhile".* He stressed the event currently is not clear and should be *"very clear about what it is offering because there is a lot* [out there]. *People in this space are stretched thin".*

Caveats to Keep in Mind.

1. Please note that the responses to the majority of the questions were self-generated, meaning that interviewees were not given a list or prompt for how to respond. For example, when asked why they are concerned, these results are not telling us what people endorse as reasons to be concerned. They may actually endorse all the items listed if asked specifically that question. What the bar chart does *tell us is what comes to their minds when considering this question.* Put into behavioral science terminology, the responses tell us which concerns are cognitively most accessible. In lay terms, the majority of the response given are what come to the "top of their mind" when asked these questions.

2. This group showed variability in their self-assessment of efficacy (i.e., their rating of how effectively they can respond to the challenges), and requested more information about how to build that efficacy and share with others their own successes. In terms of the agenda, this means focusing more on what is going well. Further, this group indicated a strong identification with a community concerned about climate change, as well as a strong sense of value-laden concerns about climate change. Thus, focusing on building identification or values around climate change issues is less important. We recommend acknowledging the community and the importance of our shared values, but spending more time on promoting efficacy – which ultimately is capacity building.

3. While many people reported wanting to get clarity on how to promote best practices (either by learning about other's work or developing skills), we believe that there is an assumption that must first be addressed regarding ideal outcomes. Given this, when we meet, we recommend talking about what "success looks like" because how a person defines "success" dictates different effective strategies, practices and skills.