



# Voces de Esperanza

## Front-end evaluation findings

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# Table of Contents

Acknowledgments	2
Background	3
Evaluation goal	4
Evaluation overall study questions	5
Specific questions for participants level of climate concern	5
Methods	6
Study design	6
Instruments	7
Data collection	7
Recruitment and administration	7
Consent	8
Data analysis	8
Colaborativo reflections	9
Sample	9
Results	10
Demographics	10
Conversations about Climate Change Survey responses	11
Survey responses by SASSY segmentation	11
Survey responses showing percent of youth and adult responses per category	12
Concerns about climate change	15
Ways in which climate change is personally relevant	16
Conversations about climate change	17
Note: Original responses were provided in Spanish. English translations are in parentheses. Importance of Climate Change Conversations	18
Discussion	20
OMSI evaluation staff interpretations	21
Recommendations	21
Colaborativo reflections	21
OMSI staff reflections	22
References	23
Appendix A: Instruments in Spanish	24
Appendix B: Instruments in English	26

## Background

*Voces de esperanza / Voices of Hope (Voces): An Exhibit and Framework for Talking about Climate Change* is a project that was funded by the National Science Foundation (NSF) and the Spencer Foundation. Voces aimed to broaden participation in climate conversations and actions through the iterative development of an exhibit experience. These experiences were created to better understand the content and design strategies that are most effective in connecting with local (Portland Metro Area) Latine audiences. For the Voces project, the term Latine includes Latino, Latina, Latinx and it is used because it was suggested by cultural community partner, Adelante Mujeres. It was expected that Oregon Museum of Science and Industry (OMSI) staff would co-lead the project with AB Cultural Drivers (ABCD) and members of Latine communities, through a culturally and linguistically-specific (Spanish/English) community-based participatory approach. In particular, Voces aimed to ensure Latine community voices were central. As such, members of Latine communities were in the roles of co-creators throughout the process as part of a *Colaborativo Comunitario/Community Collaborative* (Colaborativo). In addition to leadership roles in project process and exhibit design, the Colaborativo played an integral role in this front-end evaluation study.

The goal of the overall Voces project was to increase participation in climate-related conversations and actions by creating an approximately 700 square foot interactive exhibition that explored design and content strategies that are culturally and linguistically specific for young Latine (6th to 12th grade) and their families in Spanish and English. Specifically, the goal was for families engaging with the exhibit to exercise skills in conversations about climate change and climate action in order to strengthen climate resilience.

## Evaluation goal

The evaluation plan for Voces included a front-end study to inform project content by better understanding ways in which the topic of climate change is perceived in local (Portland Metro Area) Latine communities. To create exhibit activity content that would be perceived as relevant by local audiences, the front-end evaluation aimed to better understand how community members feel about climate change, the types of conversations they have about the topic, and the individual and collective climate-related actions they take. The participatory and reciprocal front-end evaluation activities were inspired by community-based participatory research (Goodman, et al. 2017) and aspired to be culturally appropriate, with community members holding key roles alongside ABCD and OMSI staff.

From June to December 2024, the Colaborativo members carried out four front-end evaluation activities:

- Two data collection events with families
- Two consultations with project team members to track project progress and troubleshoot potential issues

Analysis and results from this evaluation were led by ABCD and OMSI staff, while Colaborativo members, Adelante Mujeres staff, and project staff members participated in generating and interpreting findings in the form of reflections with respect to the exhibit prototypes.

## Evaluation overall study questions

The following questions stem from the front-end evaluation goals to inform and refine the content of the project deliverables. In particular, the front-end evaluation questions aimed to initially refine the content and activities of the Voces exhibit prototypes in ways that are culturally relevant for local (Portland Metro Area) Latine bilingual youth and their families/ groups.

- How do participants identify their level of climate concern?
- What are the ways in which climate change affects participants personally?
- What concerns do participants have about climate change?
- How important do participants place having conversations about climate change with their family, friends, and other people in their community?

## Specific questions for participants level of climate concern

To learn specifically about how participants identify their level of climate concern, ABCD and OMSI staff leveraged and adapted the “*Exploring the Six Americas Super Short Survey (SASSY)*” from the Yale Program on Climate Change Communication (Chryst et al., 2018). This survey is part of the Yale Program on Climate Change Communication (YPCCC), which aims to understand different public views and perceptions in relation to climate change so that messages can be tailored for each audience. The four-question survey identifies six U.S. public audiences (segments) and for each, corresponding evidence-based engagement strategies based on prior research (Lin et al., 2024, Chryst et al., 2018) (Table 1).

Table 1. Climate beliefs and recommended engagement strategies by audience

Audience	Beliefs about Global Warming	Engagement strategies
Alarmed	It is a human-caused urgent threat	Frame it as climate first messages and solutions. Focus on calls to action in the form of recruiting, mobilization.
Concerned	It is serious, but the impacts to the climate are not an immediate issue	Use an education component in focusing on the urgency of climate change
Cautious	Unsure that global warming is happening, its cause, or its level of seriousness.	Messages need to be persuasive and educative in nature, e.g. the scientific consensus on climate change.
Disengaged	Do not know much about global warming	Messages need to be persuasive and educative in nature, e.g. the scientific consensus on climate change.
Doubtful	If it exists, is just part of a natural cycle	Messages need to be persuasive and educative in nature, e.g. the scientific consensus on climate change.
Dismissive	Global warming does not exist	Do not communicate or create a target message.

Adapted from Lin et al., 2024 and Chryst et al., 2018

Leiserowitz et al. (2025) report that 26% of adult respondents are Alarmed; 28% Concerned; 35% Cautious, Disengaged, or Doubtful; and 10% Dismissive. The Voces team found these findings and recommendations informative, but the team was unsure how well the findings represented the local community who will engage with the final Voces exhibit. Specifically, Leiserowitz et al. (2025) were unable to address: 1) The audience segmentation using the SASSY questions focusing on *climate change* (instead of global warming), and 2) How to best present values, frames, concerns, and calls to action relevant to the local (Portland Metro Area) Latine community.

## Methods

### Study design

Inspired by community-based participatory research (Goodman, et al. 2017) the evaluation approach was collaboratively created by the Colaborativo, and Adelante Mujeres, ABDC, and OMSI staff. As such, the study was designed so that Colaborativo members informed

its approaches, co-led refinement of the survey and follow-up questions, and led the collection of data. Data analyses were led by OMSI and ABCD staff. The Colaborativo provided initial reflections of the findings that informed how the Voces exhibit prototypes could better resonate with the Latine audiences

## Instruments

Two bespoke instruments were used to collect data. The first, *Conversations about Climate Change Survey (CCS)*, contains open-ended demographic questions and SASSY categorical-response questions with the wording adapted to reference climate change, instead of global warming. The second, the *Follow-up Questions instrument (FQ)*, intended to collect more open-ended and detailed information on the participants' concerns and conversations related to climate change. Spanish and English versions of the instruments can be found in Appendix A and Appendix B, respectively.

Prior to data collection, Colabrotivo members received training from a professional evaluator on the techniques and best practices related to conducting interviews and administering surveys. Following the training, Colaborativo members piloted the CCS and FQ to identify issues in the protocols or instruments' content. Some of the questions were updated after Colaborativo members piloted the instruments and provided their insights and learnings. Likewise, questions were added to better understand the shaping of participants' perceptions about climate change. Similarly, questions were added to the CCS, based on a hypothesis shared by Colaborativo members and Adelante Mujeres staff that people who work outdoors are most likely to feel and notice the impact of severe weather patterns related to climate change.

## Data collection

Between June and December 2024, data were collected in Spanish, English, and a combination of both from 191 participants (159 adults, 26 youth, and six of unknown age). Data collection took place both in person and online. In person data collection was conducted at Migratoria Clinic on June 29 and Cornelius Farmers Market on September 14. During this time, data were also collected online using the Alchemer platform.

## Recruitment and administration

During in person events, evaluators recruited participants by randomly taking turns in groups of three. Each one of the evaluators randomly approached groups composed of only adults and of adults and youth (6th to 12th grades) who were starting their walk through the event area.

At in-person data collection events, the CCS was completed either on a tablet connected to a digital version of the survey (hosting on the survey platform, Alchemer), or using pen

and paper (depending on participant preference and wifi availability). During these events, the FQ was used by evaluators to guide conversational interviews, when participants consented. Responses to follow-up questions were written out by interviewers who asked unscripted clarifying questions as needed.

Participants were recruited to participate online through both snowball sampling and direct recruitment by Colaborativo members, Adelante Mjujeres, and ABCD. For online data collection, both the CSS and FQ were self-administered by participants using a link to the Alchemer hosted instruments.

## Consent

Both online and in person data collection required informed consent prior to participation. Included in the consent was a statement that all responses are completely anonymous, participants had a right to stop at any time, including mid-question, and that questions could be skipped if desired. During recruitment at in person events, verbal informed consent was obtained from adults. When youth were involved, both youth verbal assent and parental consent were obtained. The consent for in person participants also asked for permission to record the follow-up question interview for data analysis purposes. For online data collection, participants were provided with information about the project prior to receiving a link to the Alchemer hosted instruments. Participants consented by choosing to click on the Alchemer link and provided responses to the online questions.

## Data analysis

Descriptive statistics (counts and percentages) were applied to understand categorical participant responses. Additionally, the data for the SASSY were analyzed using the SASSY Group Scoring Tool, a tool developed by the YPCCC to provide an overall scoring of each respondent's data as associated with one of the six audience types: Alarmed, Concerned, Cautious, Disengaged, Doubtful, or Dismissive (Lin et al., 2025). For demographic data, as prescribed by YPCCC, ages were converted to 'Adult' for people 19 years and over and 'Youth' for people under 19; those participants who did not disclose an age were labeled as having an unidentified age.

The data from the FQ were primarily open-ended qualitative. They were used to highlight the different ways in which the participants found relevance to climate change and engaged in conversations about the topic. Qualitative data from the follow-up questions were recorded in their original language (Spanish, English and/or a combination of both), which allowed OMSI and ABCD staff to capture and assess nuances not translatable between languages.

## Colaborativo reflections

During the February 8, 2025 Colaborativo session at Adelante Mujeres offices (located in Forest Grove, Oregon), ABCD staff led a facilitated activity to interpret the data to inform recommendations for the Voces exhibit prototypes. The discussion was guided by these questions:

What successful practices are we (the Voces project) using?

What things are being achieved in the initial exhibit prototypes.

The goal of the activity was to provide a context in which Colaborativo members could analyze, reflect, and provide insights from the data that inform the exhibit prototypes' content and activities, while also uncovering gaps and future questions that the Voces project team would need to address.

The activity involved creating three groups consisting of Colaborativo members, Adelante Mujeres and OMSI staff that analyzed data and shared their group reflection in one of these three topics: concerns about climate change; ways in which climate change is relevant; and conversations about climate change. After each group shared their reflection, all the participants, guided by ABCD staff, arrived at general reflections, findings and suggestions for moving forward.

## Sample

Instruments included the CCS and the FQ, both of which were used during the two events and online data collection. The target sample size was 100 youth (6th to 12th grades) and 100 adults. Table 2 below illustrates the actual sample size for each audience by protocol for participants who answered the question about their age.

Table 2. Sample by protocol and age

Protocol	Adults	Youth	Total Sample <sup>1</sup>
In person events	59	17	76
Online (Alchemer)	100	9	109
Total	159	26	185

<sup>1</sup>Excludes six participants who did not disclose their age

As seen in Table 2, the target for youth participation was not met during the data collection timeframe. The low youth response rate caused project staff to reflect on the methodology used to collect data from youth and how it might be improved in the future. According to Colaborativo members, most adults at the in person events were comfortable with the paper survey and interviews conducted in Spanish. Whereas youth

preferred English options and online methods. This posed a challenge for the Colaborativo members, since the majority of them were most comfortable approaching participants and asking for their participation in Spanish. An unfortunate consequence of the low youth representation is this evaluation's inability to provide reliable insight into youth perspectives on climate change. However, the sample for the adult participants exceeded the goal, allowing the project team to gain a better understanding of the local adult community.

## Results

During this project, decisions were made that may have impacted the interpretability of the study's findings. The first is that the strategy used to collect data was not focused on collected data from youth. As a result, the youth data suffered from a small sample size and incomplete data.

The second decision that might influence the interpretability of the data, was that the methods used in this study were different from those used by YPCCC. For instance, this study utilized snowball sampling methods, instead of a systematic sampling approach. Also, this study treated climate change and global warming as separate constructs, instead of using the terms to refer to the same phenomena.

This section is organized by the YPCCC SASSY audience segmentation, followed by descriptives in the form of counts and percentages, and then open-ended responses. When descriptives and counts are presented (including percentages), it should be noted that the number of youth responses (26) is not robust enough to properly draw in depth conclusions about their perspectives and any further conclusion drawn from these results, should be done with that in consideration. Finally, youth data are presented in response to suggestions made by Adelante Mujeres and ABCD staff. However, the data from the youth are not robust enough to be used to make inferences about youth perceptions. Youth and adult data in this section may be presented in the same chart to promote clarity—not to draw comparisons between the groups.

## Demographics

This section provides an overview of aggregated participant demographics. For the open-ended question about gender identification, nearly 65% (103 out of 159) of the adults identified as female and about 35% (55) identified as male. Among the youth, male and female identities were each reported by 46% (12 out of 26) of participants, with 8% (2) non-responses.

For the open-ended question about racial-ethnic identification, about 96% (153) of adult participants identified as Latine/ Hispanic, with nearly 3% (4) identifying as White/Caucasian and 1% (2) with no clear ethnic or racial identification. All of the responding youth (16) identified as Latine/ Hispanic. Latine/Hispanic identification was indicated by participants using Hispanic(o/a) or Latine/a/o to identify themselves; identifying as having a nationality from Mexico, Puerto Rico, Salvador, or identifying as a combination of Indigenous and/ or some blend such as Azteca, Mestizo (mixed race person, usually Spanish and Amerindian).

## Conversations about Climate Change Survey responses

### Survey responses by SASSY segmentation

As mentioned earlier in the paper, the CCS included modified SASSY questions in which the term 'global warming' was replaced by the Voces project term, 'climate change'. Because the youth sample size was small, only the aggregated adult data were used to show participant segmentation. Overall, three-quarters of the adult participants were identified as *Alarmed*, with a majority of the remaining participants (20%) identified as *Concerned*. Figure 1 depicts the six audience segmentations based on the participants' responses, as reported by the SASSY Segmentation Tool. The segments *Disengaged* and *Dismissive* are excluded from the figure, as they are not represented in the sample.

Voces frontend adult participant segmentation (n=153)

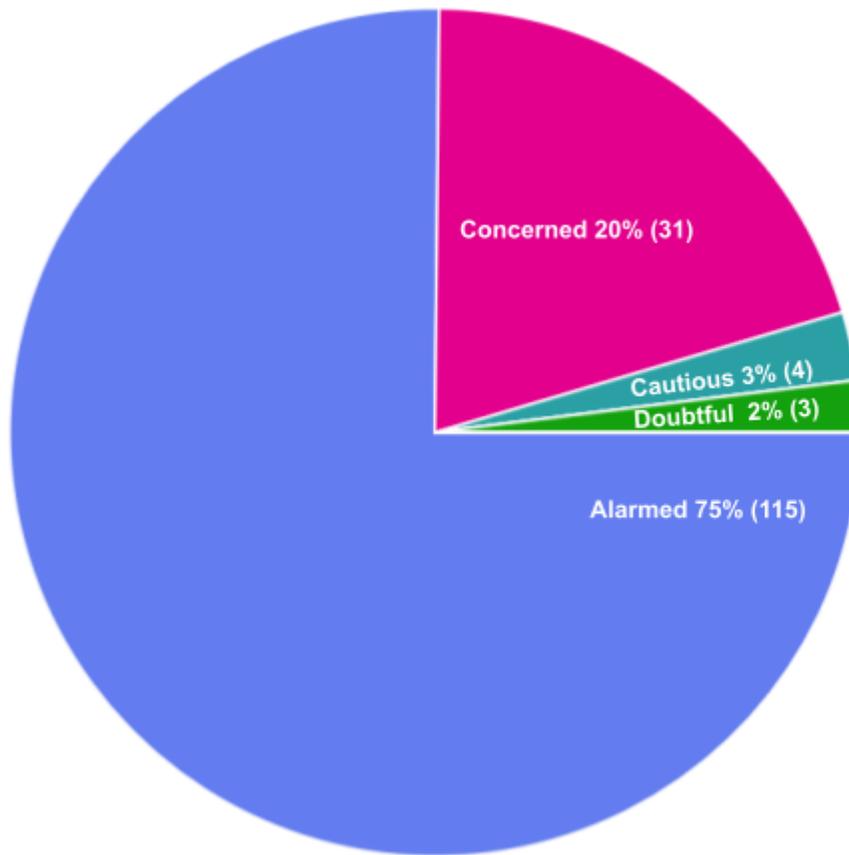
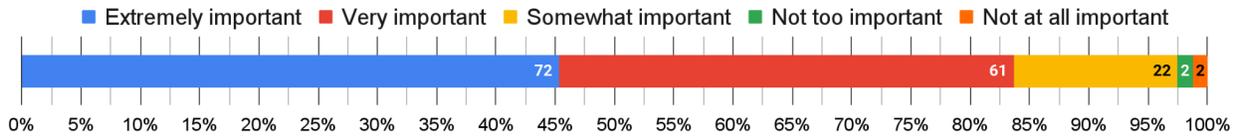


Figure 1. Audience segmentation of Voces front-end study adult participants by SASSY segmentation tool

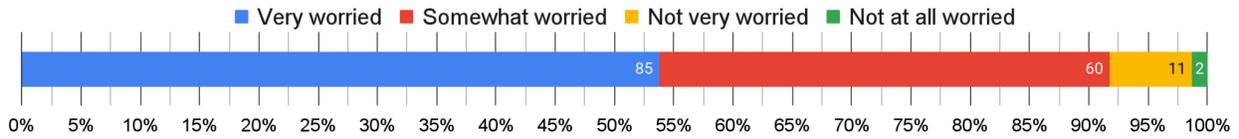
### Survey responses showing percent of youth and adult responses per category

This section describes the results from the four SASSY questions and two additional questions. The aggregated frequencies for each question are visualized using stacked bar charts. Frequencies for adult and youth responses or visualized in Figure 2 and Figure 3, respectively.

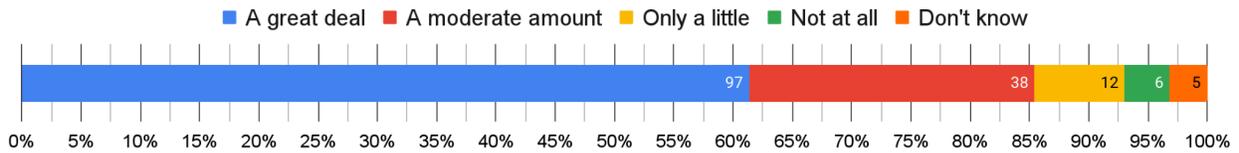
**How important is the issue of climate change to you personally? (Adult)**



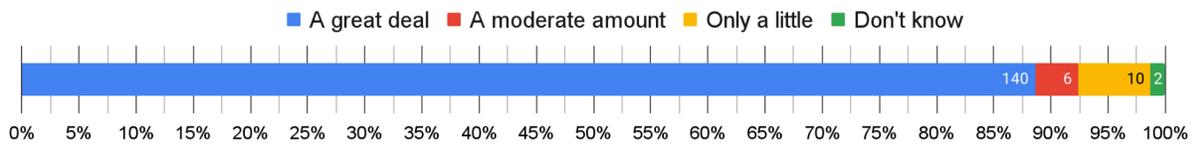
**How worried are you about climate change? (Adult)**



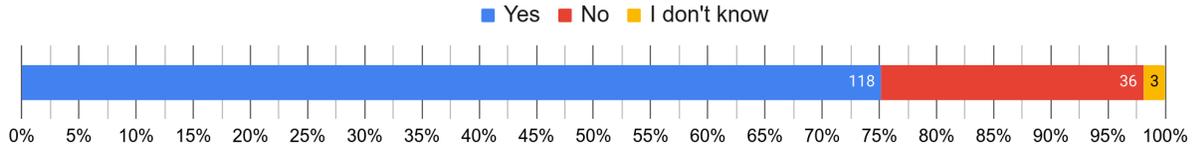
**How much do you think climate change will harm you personally? (Adult)**



**How much do you think climate change will harm future generations of people? (Adult)**



**Do you talk to your family, friends or others in your life about Climate Change? (Adult)**



**How much time would you say you spend outdoors on a given week because of your work or personal activities? (Adult)**

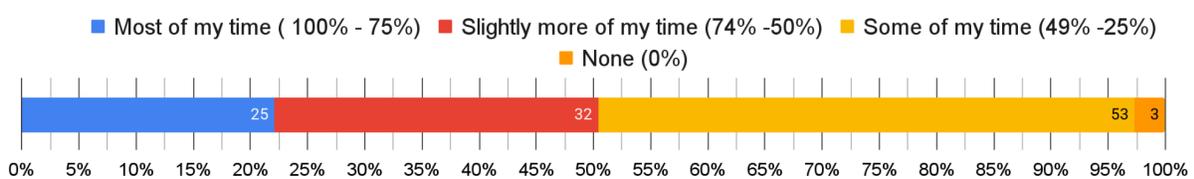
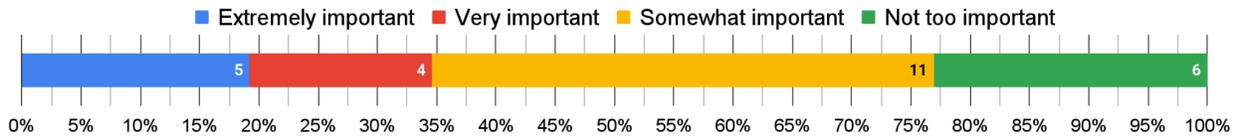
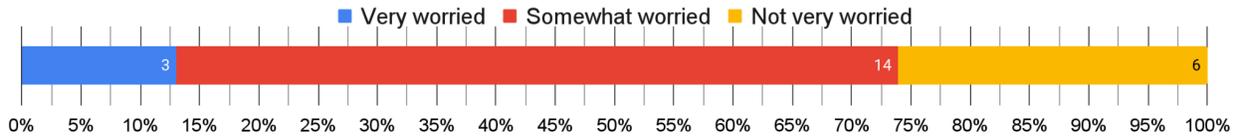


Figure 2. Adult responses to questions about climate change

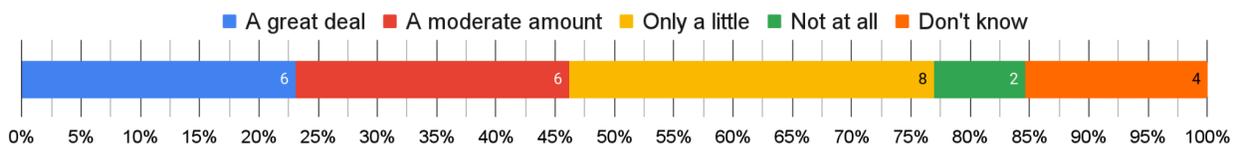
### How important is the issue of climate change to you personally? (Youth)



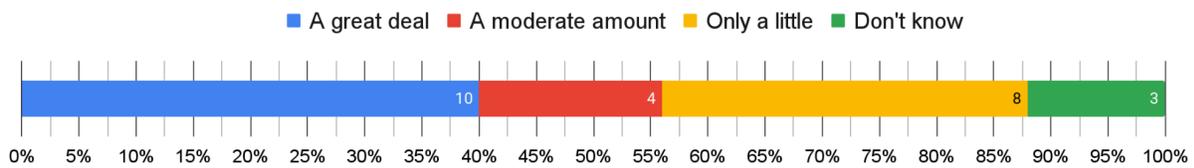
### How worried are you about climate change? (Youth)



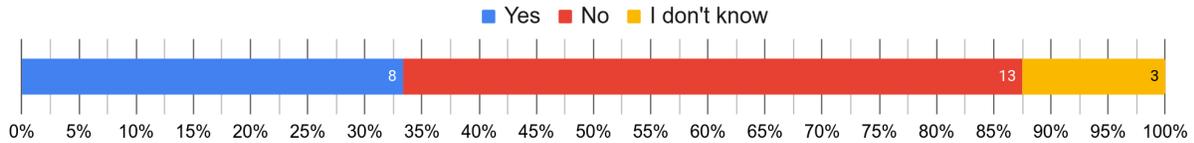
### How much do you think climate change will harm you personally? (Youth)



### How much do you think climate change will harm future generations of people? (Youth)



### Do you talk to your family, friends or others in your life about Climate Change? (Youth)



### How much time would you say you spend outdoors on a given week because of your work or personal activities? (Youth)

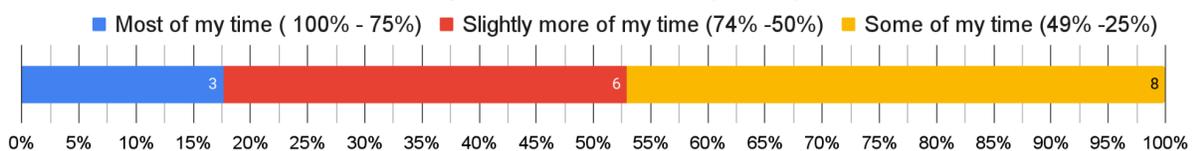


Figure 3. Youth responses to questions about climate change

Overall, adult participants are concerned about climate change, believe that it will negatively impact their lives and the lives of future generations, and engage in conversations related to climate change (Figure 2). The youth data show that youth participants are more diverse in their climate beliefs, but are as a whole only somewhat worried about climate change and not likely to engage in climate related conversations (Figure 3). As mentioned previously, the youth data are only provided for completeness and

are not to be compared to adults and are not robust enough to make inferences about local youth climate beliefs.

## Concerns about climate change

When adults were asked open-ended questions about climate change, in general they expressed concerns. When youth were asked open-ended questions about climate change, nearly half of the youth declined to respond. Table 3, below provides examples of adult participant concerns.

Table 3. Examples of adult participant’s climate concerns

Concern	Example
Changes in climate, temperatures, and ecosystems. Specifically the amount of rainfall, extreme temperatures, heat waves, rising ocean levels, and loss of glaciers.	<p>“..<i>mucha lluvia, nieve y sequía.</i>”            (“...a lot of rain, snow, and drought.”)</p>
Water, access to and lack of drinking water, fresh water, and water in rivers.	<p>“.. Se seque el agua y sea más difícil conseguirla de buena calidad.”            (...Water dries up and it becomes more difficult to obtain potable water.)</p>
Damage to ecosystems and places: pollution and air quality, deforestation, fires	<p>“<i>Preocupa que por el calor hay muchos incendios</i>”            (I am worried about the heat and that there are many fires)</p>
Fauna and flora. How they impact nature, forests, loss of species, damage to fauna and flora.	<p>“The bees and the oceans coral need to be saved”              “<i>Derretimiento de glaciares...Deterioro de la flora y fauna</i>”            (Melting of glaciers ...damage to the flora and fauna)</p>
Health: skin diseases, emergence of new illnesses.	<p>“<i>Varias preocupaciones. Hay muchas alergias en las personas.</i>”            (Various concerns. There are more allergies in people)              “<i>Estoy preocupada por la salud de todos nosotros ya que a veces la calidad de aire que respiramos no es muy saludable.</i>”</p>

(I am concerned for the health of everyone.  
Sometimes the air we breath is not very healthy)

For future generations

*“Que las futuras generaciones no puedan disfrutar del medio ambiente como lo disfrutamos mi generación y las antepasadas.”*

(That future generations won't be able to enjoy the environment as my generation and our ancestors did.)

Other topics were mentioned, such as socioeconomic issues: agriculture, food, vulnerable populations.

*“Porque las personas con menos recursos y en peores condiciones de vivienda van a ser las más afectadas.”*

(Because people with fewer resources and in worse housing conditions are going to be the most affected.)

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Note: Original responses were provided in Spanish. English translations are in parentheses.

Nearly half of the youth did not answer this question and said they were not worried. From those who answered this question, these were the concerns mentioned:

- Changes in climate and temperatures: heat, melting ice
- Ecosystems: rain, damage to nature, fires, fauna, flora
- Pollution: trash, not recycling, factories

## Ways in which climate change is personally relevant

Most adults responded that some issues are relevant to them, their family, or their community. Several of these responses included context about how these issues were relevant; however, other responses only referred to a topic without providing context about how it was personally relevant to them.

For the adults, climate change is relevant in the ways it affects them and connects to extreme temperatures and the impact on ecosystems:

The most frequent personally relevant concerns are summarized below:

- Economically, as several people mentioned the use and cost of air conditioning, the impact on their jobs, agriculture, and food production
- Health-related impacts due to heat and cold waves, fires, pollution, and vulnerable populations
- The ability to engage in outdoor activities with family and friends and enjoy nature, trees, fauna, and flora

- Access to clean water and food

The youth responded in these areas regarding climate change relevance:

- Health and ecosystems with fires, damage to people's health
- Economy: agriculture and access to food
- Access to water

## Conversations about climate change

More than two-thirds of the adult and youth participants indicated that they have talked about climate change with their family, friends or other people in their lives. The most frequently mentioned topics of conversation were water scarcity, changes in biodiversity, and extreme weather events. Table 4 provides examples of the adult participants' climate conversation topics.

Table 4. Examples of adult participants' climate conservation topics

Concern	Example
Political action	"Que va a empeorar, pocas políticas públicas para proteger el medio ambiente."  (It will get worse, few public policies to protect the environment.)
Impact of climate change on the availability of natural resources such as water	"El miedo a quedarnos sin agua." (The fear of running out of water.)
Increase in extreme temperatures	"El aumento de las olas de calor en el país." (The increase in heat waves in the country.)
Effects of climate change on everyday life and the environment	"Que las temperaturas están subiendo y los glaciares se derriten subiendo el nivel del mar y causando inundaciones."  (Temperatures are rising and glaciers are melting, raising sea levels and causing flooding.)

Note: Original responses were provided in Spanish. English translations are in parentheses.

Among youth, about half of them said they have talked about the topic, while others said they have not or do not remember having these conversations. Examples of conversation topics are presented in Table 5.

Table 5. Examples of youth participant's climate conservation topics

Concern	Example
References to catastrophic events, such as the end of the world, melting glaciers and species extinction	"Que se va a acabar el mundo en incendio." (That the world is going to end in fire.)
	"El derretimiento de los polos." (The melting of the poles.)
Animal migration due to climate change	"El derretimiento de los glaciares perjudica a los animales." (The melting of glaciers is harming animals.)
Loss of natural habitats	"Cómo se derrite el hielo de la Antártida y hay menos y menos cada año." (How the Antarctic ice is melting and there is less and less of it every year.)

Note: Original responses were provided in Spanish. English translations are in parentheses.

## Importance of Climate Change Conversations

The majority of the participants believe that climate change conversations are important. Table 6 summarizes the reasons that adult participants believe that conversations about climate change are important. Table 7 provides examples from youth participants.

Table 6. Examples of the importance of climate conversations for adults participants

Reason	Example
Promoting collective awareness, collaboration, and community action to address the problem	"Porque todos somos responsables y debemos colaborar en la misma medida para poder seguir teniendo a esta tierra como el espacio para vivir." (Because we are all responsible and must collaborate equally to continue having this earth as a place to live.)  "Para poder colaborar todos a tratar mejor el medio ambiente y sus recursos." (So that we can all collaborate to better treat the environment and its resources.)
Having information that allows for prevention and generates positive changes	"Para poder entender lo que nos afecta el cambio y así buscar una solución para prevenir dicho acontecimiento." (To be able to understand how change affects us and thus find a solution to prevent such an event.)
Contributing to education and changing mindsets within their communities	"Educar a la comunidad y tomar conciencia para hacer cambios positivos." (Educate the community and raise awareness to make positive changes.)

Note: Original responses were provided in Spanish. English translations are in parentheses.

Table 7. Examples of the importance of climate conversations for youth participants

Reason	Example
Raising awareness and educating more people	<p>"Conciencia y educación: Muchas personas aún no comprenden completamente el alcance del cambio climático o cómo les afecta directamente."</p> <p>(Awareness and education: Many people still don't fully understand the scope of climate change or how it directly affects them.)</p> <p>"Para poder colaborar todos a tratar mejor el medio ambiente y sus recursos."</p> <p>(So that we can all collaborate to better treat the environment and its resources.)</p>
Concern for the future and how their current decisions can affect future generations	<p>"Porque podemos reducir el tiempo de extinción del planeta."</p> <p>(Because we can reduce the planet's extinction time.)</p>
Learning how to act and what to do to reduce the impact of climate change	<p>"Para estar informados y saber cómo actuar para ayudar."</p> <p>(To be informed and know how to act to help.)</p>

Note: Original responses were provided in Spanish. English translations are in parentheses.

## Discussion

This section contains interpretations from OMSI staff that are guided by the evaluation questions and the SASSY segmentation data. Specifically, this section considers how the data inform ideas for situating exhibit content in ways that favor perceived relevance by members of local Latine communities. The SASSY segmentation provides OMSI with insight into how local community members perceive climate change, which can be used to help identify communication approaches to use when engaging local communities. The FQ elicited deeper, specific information on respondents' concerns, conversations, and values related to climate change.

### OMSI evaluation staff interpretations

By leveraging the SASSY segmentation, this report sought to better understand community members' climate attitudes and inform ways in which the exhibit prototypes' content could craft targeted content and promote conversations about climate change by identifying which of Six Americas audience segments participants identified with.

The SASSY segmentation tool labeled adult participants as largely *Alarmed*. This corroborates with adult responses to the FQ which suggests that most participants consider climate change an important issue. Overall adult participants believe climate related conversations are important to educate each other and promote collaborative action. The findings for the youth are more ambiguous. The small sample size and quality of data collected from the youth make it difficult to draw inferences about local youth perspectives.

Additionally, OMSI staff examined the data for overlap between the reported amount of time spent outside and responses to other questions (both qualitative and quantitative). There was no evidence to support the hypothesis put forth by Colaborativo members and Adelante Mujeres that those who reported spending most of their time outside were the most likely to feel and notice the impact of severe weather patterns related to climate change. These findings should not be interpreted as disproving the hypothesis, but rather as an indicator that further research is needed to explore the relationship between these variables.

## Recommendations

Reflecting upon the data and the project, Colaborativo members and OMSI staff generated recommendations for moving forward. Some of these recommendations are specific to the Voces project and some pertain to broader actions to be taken by the field. To disambiguate perspectives, recommendations from the Colaborativo and OMSI staff are presented separately.

### Colaborativo reflections

Many Colaborativo members expressed that the climate topics participants mentioned as concerns or personally relevant (i.e. changes in the climate, access to water, and impacts to human health) were not addressed by the exhibit prototypes in the last version they saw. These recommendations from these reflections are summarized below:

- Increase the amount of conversations about climate change—they are important.
- Engage in climate conversations in ways that don't provide too much information or overly focus on devastation.
- Create ways to raise awareness, encourage community action through education and things they can actively do. Use the exhibit to demonstrate opportunities where youth and adults can learn and get involved.
- Consider incorporating topics such as family finances (home economics) and immediate family health into the exhibit content (e.g. costs of services such as

electrical and air conditioning systems, and impacts on working conditions such in agriculture).

## OMSI staff reflections

While OMSI staff did not have a formal reflection session, team members identified various recommendations moving forward:

- Exhibit content will be effective with most adults from local Latine communities if it is framed with climate-first messages, focused on recruiting and mobilizing action.
- Consider including exhibit topics that youth and adults are already interested in discussing such as economy and natural ecosystems.
  - Integrate ways in which addressing climate change impacts is both beneficial for their local economies while preserving and protecting natural areas, nature, fauna and access to water.
  - Offer local examples where local community members integrated food systems and social systems for sustainability outcomes (e.g. agroecology) and the names of organizations doing such work.
- Consider utilizing a tailored and nuanced data collection strategy to collect data from youth about climate change.
- Conduct research on the efficacy of the modified SASSY instrument.
- Conduct research to better understand the relationship between the amount of time spent outside and the impact of severe weather patterns related to climate change.

## References

Chryst, B., Marlon, J., van der Linden, S., Leiserowitz, A., Maibach, E., & Roser-Renouf, C. (2018). Global warming's "Six Americas Short Survey": Audience segmentation of climate change views using a four question instrument. *Environmental Communication*, 12(8), 1109–1122.

Leiserowitz, A., Maibach, E., Rosenthal, S., Kotcher, J., Goddard, E., Carman, J., Myers, T., Verner, M., Marlon, J., Goldberg, M., Ettinger, J., Richards, E., Fine, J., & Thier, K. (2025). *Global Warming's Six Americas, Fall 2024*. Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication.

Lin, J., Thompson, A., Marlon, J., Talwar, M., & Low, J. (2025). *New Guidebook: Using the Six Americas Super Short Survey (SASSY) in Campaigns and Education*. Yale University. New Haven, CT: Yale Program on Climate Change Communication.

Goodman, L. A., Thomas, K. A., Serrata, J.V., Lippy, C., Nnawulezi, N., Ghanbarpour, S., Macy, R., Sullivan, C. & Bair-Merritt, M. A. (2017). *Power through partnerships: A CBPR toolkit for domestic violence researchers*. National Resource Center on Domestic Violence. <https://cbprtoolkit.org/>

Roser-Renouf, C., Stenhouse, N., Rolfe-Redding, J., Maibach, E., & Leiserowitz, A. (2021) *Engaging diverse audiences with climate change: Message strategies for Global Warming's Six Americas*. In Cox, R. & Anders, H. (eds.) *Handbook of Environment and Communication*.

Yale Program on Climate Change Communication (n.d.). *Global Warming's Six Americas*. <https://climatecommunication.yale.edu/about/projects/global-warmings-six-americas/>

## Appendix A: Instruments in Spanish

### Encuesta acerca de las Conversaciones sobre el Cambio Climático

1. ¿Qué importancia tiene para ti personalmente el tema del cambio climático?

Extremadamente importante <input type="checkbox"/>	Muy importante <input type="checkbox"/>	Algo importante <input type="checkbox"/>	No demasiado importante <input type="checkbox"/>	No tan importante <input type="checkbox"/>
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2. ¿Qué tan preocupado estás por el cambio climático?

Muy preocupado <input type="checkbox"/>	Algo preocupado <input type="checkbox"/>	No muy preocupado <input type="checkbox"/>	Para nada preocupado <input type="checkbox"/>
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3. ¿Cuánto crees que te perjudica personalmente el cambio climático?

Mucho <input type="checkbox"/>	Una cantidad moderada <input type="checkbox"/>	Solo un poco <input type="checkbox"/>	Para nada <input type="checkbox"/>	No lo sé <input type="checkbox"/>
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4. ¿Cuánto daño crees que el cambio climático causará a las futuras generaciones de personas?

Mucho <input type="checkbox"/>	Una cantidad moderada <input type="checkbox"/>	Solo un poco <input type="checkbox"/>	Para nada <input type="checkbox"/>	No lo sé <input type="checkbox"/>
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La siguiente información nos ayudará a determinar si estamos escuchando de una muestra representativa en este evento.

¿Cuál es tu.. Edad: \_\_\_\_\_ Género: \_\_\_\_\_ Etnicidad/  
Raza: \_\_\_\_\_

¿Cuáles es tu ocupación? \_\_\_\_\_

¿Cuánto tiempo dirías que pasas al aire libre en una semana determinada por tu trabajo o actividades personales? Circula una opción

- La mayor parte de mi tiempo (100% - 75%)
- Un poco más de mi tiempo (74% - 50%)
- Parte de mi tiempo (49% - 25%)
- Poco de mi tiempo (24% - 1%)
- Nada de mi tiempo (0%)

## Preguntas de seguimiento

1. ¿Qué preocupaciones tienes sobre el cambio climático?
2. ¿Puedes nombrar al menos una forma en la que el cambio climático es personalmente relevante para ti, tu familia y tu comunidad?
3. ¿Hablas con tu familia, amigos u otras personas en tu vida sobre el cambio climático?  
Si  
No  
No se
4. ¿Cuáles son las cosas que has escuchado que se te han quedado grabadas o que te han llamado la atención en esas conversaciones?
5. ¿Por qué crees que es importante tener conversaciones sobre el cambio climático, O NO, con tu familia/amigos/otras personas en tu comunidad?

¡Gracias por participar en esta actividad!

# Appendix B: Instruments in English

Number: \_\_\_\_\_

## Conversations about Climate Change Survey

1. How important is the issue of climate change to you personally?

Extremely important <input type="checkbox"/>	Very important <input type="checkbox"/>	Somewhat important <input type="checkbox"/>	Not too important <input type="checkbox"/>	Not at all important <input type="checkbox"/>
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2. How worried are you about climate change?

Very worried <input type="checkbox"/>	Somewhat worried <input type="checkbox"/>	Not very worried <input type="checkbox"/>	Not at all worried <input type="checkbox"/>
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3. How much do you think climate change will harm you personally?

A great deal <input type="checkbox"/>	A moderate amount <input type="checkbox"/>	Only a little <input type="checkbox"/>	Not at all <input type="checkbox"/>	Don't know <input type="checkbox"/>
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4. How much do you think climate change will harm future generations of people?

A great deal <input type="checkbox"/>	A moderate amount <input type="checkbox"/>	Only a little <input type="checkbox"/>	Not at all <input type="checkbox"/>	Don't know <input type="checkbox"/>
--	---	---	--	--

The following information will help us determine if we are hearing from a representative sample in this event.

What is your ...Age\_\_\_\_\_ Gender:\_\_\_\_\_ Race:\_\_\_\_\_

What is your occupation? \_\_\_\_\_

How much time would you say you spend outdoors on a given week because of your work or personal activities? Circle one option:

- Most of my time (100% - 75%)
- Slightly more of my time (74% - 50%)
- Some of my time (49% - 25%)
- Little of my time (24% - 1%)
- None (0%)

## Follow -up Questions

1. What concerns do you have about climate change?
2. Can you name at least one way in which climate change is personally relevant to you, your family and community?
3. Do you talk to your family, friends or others in your life about Climate Change?  
Yes  
No  
Not sure
4. What are things that you have heard that have stuck with you or got your attention from those conversations?
5. Why do you think it is important to have conversations about Climate Change, OR NOT to your family/friends/others in your community?

Thank you!