Climate Connect

An Evaluation Report

A Series of Climate Related Workshops to Build the Capacity of People in Two Houston Communities

Contents

I. MEET THE TEAM

Meet The Climate Connect Team

COCO

	
Rev James L. Caldwell *Founder/Director*	Mrs. Donna Ganther *Administrative Assistant*

LEED With Joy LLC Team & Contractors

			
Joy Semien, PhD L.E.E.D. With Joy LLC *Program Manager*	Jennifer R. Blanks, PhD Cemetery Sista LLC *Subject Matter Expert & Qualitative Evaluator*	Allen White W.A.L. Consulting LLC *Subject Matter Expert & Logistics Manager*	Guillermina Sweeny Logistics Mastery Academy *Subject Matter Expert*

		
Janet Gujardo *Subject Matter Expert*	Madison Malone *Summer Intern*	Dereka Carrol, PhD DADA Analytics *Quantitative Evaluator*

II. EXECUTIVE SUMMARY

This report outlines the evaluation of the "Climate Connect Program sponsored by Verizon and hosted by the Coalition of Community Organizations in Houston, Texas.

The "Climate Connect" program was initially a pilot program designed to introduce climate equity programming to Verizon's Community Forward Centers, empower Houstonians and their communities with the tools and resources to increase their climate resilience, and inform ongoing climate equity solution designs at Verizon.

This program was initially rooted in the belief of collective responsibility and resilience, aiming to educate, empower, and galvanize communities into actions through a series of climate-based workshops.

The workshops were held for two Houstonian communities at Verizon Community Forward Centers. These community centers were located in East End and Gulfton, with similar programming to be offered at each center to ensure Houstonians have options to attend Climate Connect programs.

This report outlines a series of surveys used to evaluate the changes in knowledge that occurred among participants and participants self-perceived effectiveness of the workshops.

The report is organized into four overarching sections:

- Executive Summary:
- Project Overview
- Evaluation Methodology
- Key Findings
- Overarching Conclusions & Recommendations

This report is produced by L.E.E.D. With Joy LLC on behalf of the Coalition of Community Organizations in Collaboration with DaDA Analytics, and The Cemetery Sista LLC.

III. PROJECT OVERVIEW

"Climate Connect" introduced climate equity programming to Verizon's Community Forward Centers to empower Houstonians with tools to increase climate resilience and inform Verizon's climate equity initiatives. Rooted in collective responsibility and resilience, the program aimed to educate and galvanize communities into action.

In collaboration with the Coalition of Community Organizations (COCO) and qb. consulting, Climate Connect hosted climate-focused workshops at Verizon's East End and Gulfton centers, offering similar programming to ensure inclusivity and accessibility.

The program empowered communities by providing education and resources to promote informed action, emphasized collective resilience against climate impacts, and addressed local challenges such as extreme weather, urban heat, and pollution. Through partnerships with local stakeholders, Climate Connect fostered collaboration to maximize impact, providing a model for community-led climate action in Houston.

The Climate Connect initiative sought to address the pressing challenges of climate change and sustainability within the Houston community. Houston, like many other urban centers, faces unique environmental challenges exacerbated by climate change, such as extreme weather events, urban heat islands, and air pollution. Climate Connect sought to address these issues directly by developing tailored programming to the specific needs and realities of the Houston community. Throughout the initiative the team hosted a series of 11 workshops and 2 community tours.

These events consisted of:

- Weatherization training for seniors (n=2)
- Disaster Preparedness Workshop (n=2)
- Green Economy Young Adult Mixer and Career Fair (n=2)
- Mini-Day Climate Science Camp for 3rd to 5th grade students (n=2)
- Climate Back to School Bash (n=2)
- Toxic Tour (n=1)

- A Climate Resiliency tour (n=1)
- Disaster Recovery Workshop (n=1).

Each workshop was held at one of the two Verizon Community Forward Centers located in either the East End or Gulfton Communities. Ultimately the program sought to empower the residents of these two communities, while building a sense of collective responsibility and resilience, as well as facilitate partnership and collaboration between local stakeholders.

We employed a multifaceted recruitment strategy, utilizing program partners' networks and resources. Outreach included email lists, flyer distribution, and online announcements to attract diverse participants with a shared interest in community resilience.

To ensure program effectiveness, COCO used a comprehensive evaluation framework, presented here, combining traditional pre/post-tests with innovative methods like tabletop and scenario-based exercises.

Ultimately, the goal of the Climate Connect initiative was to provide climate-centric programming led by a local community organization. It represented a proactive response to the urgent climate and environmental challenges facing our planet and offers a blueprint for future collective action and resilience in the face of climate change.

IV. METHODOLOGY

This next section outlines the overall methodology used to evaluate the program. Through the Climate Connect Initiative we were able to host 13 community workshops and events in two Houston communities, Eastend and Gulfton.

Recruitment

We employed a multifaceted recruitment strategy, leveraging collective program partners' resources and network. Outreach methods include email lists, on-the-ground dispersal of flyers, and online announcements. We aimed to attract diverse participants who share a common interest in community resilience.

Evaluation

To measure workshop effectiveness and knowledge change among participants we employed a comprehensive evaluation framework encompassing both traditional (pre/posttest) and innovative (tabletop, scenario-based) methods at every event. We employed a mixed-methods approach to evaluation, utilizing both quantitative and qualitative data collection techniques.

Questionnaires included a combination of open-ended and closed-ended questions to capture participants' feedback, experiences, and overall satisfaction with the workshop. The open-ended questions allowed for detailed, qualitative insights, while the closed-ended questions provided structured, quantifiable responses.

In addition to surveys, evaluator observations were conducted throughout the workshop to assess participant engagement, the effectiveness of instructional methods, and the overall delivery of content.

For data analysis, we used descriptive statistics to summarize key variables such as participant demographics, satisfaction levels, and learning outcomes. To assess the impact of the workshop on participants' knowledge and skills, we analyzed the data using

descriptive statistics, and an index which compared pre- and post-workshop scores by question and participant to determine any statistically significant improvements in understanding or application of weatherization techniques.

V.RESULTS

As stated, The Climate Connect program sought to address the pressing challenges of climate change and sustainability within two Houston communities. The program sought to empower individuals and families in these communities, build a sense of collective responsibility and resilience, as well as facilitate partnership and collaboration between local and national stakeholders.

This next section provides the results of the 13 community workshops and events held in the Houston Community as part of the Climate Connect Initiative. The section is divided into eight sections in correspondence with the workshop. Each section includes the workshop description, the audience types, learning objectives, and the results of the overall analysis.

Weatherization

Description

The Senior Breakfast and Weatherization Workshop aimed to enhance resilience among Houston's senior citizens by promoting energy efficiency and environmental sustainability. The event combined social engagement with education and practical training, tailored specifically for older adults.

During breakfast, seniors enjoyed a welcoming atmosphere, fostering community connections and social well-being. Following this, a weatherization training session provided hands-on instruction on energy conservation and climate resilience. We partnered with Center Point Energy and the Baker Ripley Center to serve as an instructor for the workshop. Topics included energy usage, identifying inefficiencies, and implementing cost-effective measures like draft sealing and appliance upgrades. The training empowered seniors to reduce energy costs and minimize their environmental impact.

During the skills session we conducted a tabletop exercise using a scaled-down playhouses to demonstrate weatherization techniques. The exercise involved participants working in small groups, using the playhouse as a model to identify common energy inefficiencies such as drafts and inadequate insulation. A larger, full-sized playhouse was positioned at the front of the room, serving as a visual aid for the demonstration. Facilitators guided the participants through hands-on activities, including sealing gaps, adding insulation, and discussing the installation of energy-efficient fixtures. This interactive setup allowed participants to practice weatherization skills in a controlled environment before going home to apply them to their own homes.

Partners

Primary Speaker: Center Point Energy

Secondary Speaker: Baker Ripley Weatherization Program

Audience

The workshop was specifically designed for seniors aged 55 and older, targeting this demographic to address their unique needs in terms of energy efficiency, home weatherization, and climate resilience. By focusing on older adults, the program aimed to empower a population that may be more vulnerable to the impacts of climate change and energy inefficiencies, such as increased utility costs and extreme weather events. The workshop provided practical tools and information, ensuring that seniors could confidently apply the skills learned to improve the comfort, safety, and sustainability of their homes.

Learning Objectives

The weatherization workshop aimed to achieve two key objectives:

- **Objective 1:** The workshop educated participants on the importance of weatherization in reducing energy consumption, lowering utility bills, and improving home comfort through interactive presentations and demonstrations.
- **Objective 2:** Attendees learned how to conduct energy audits, identify inefficiencies, and implement cost-effective

weatherization measures like air sealing and insulation installation through hands-on activities.

Incentives

- Weatherization kit
    - Deluxe Window Insulation Kits
    - Rolls of Fingertip Rope Caulk
    - Foam Tape
    - Switch and Outlet Sealing Gaskets
- $ 25 HEB Gift Card (Grocery Store)

Study Site

The first workshop took place at the Verizon Forward Center in Gulfton, with 16 participants, 8 volunteers, and 11 vendors in attendance. The second workshop took place at the Verizon Forward Center in East End with 8 participants, 2 volunteers, and 10 vendors in attendance.

The room was arranged in a classroom style, with each table featuring a small house model for the hands-on skills session, and a large model house at the front of the room.

Image 1: Illustration of Large Doll House

Image 2: Illustration of Small Doll House

Before the workshop began, participants were provided with a pre- and post-workshop questionnaire during registration, along with instructions on how to complete it. Additionally, they were asked to use sticky notes to highlight what participants hoped to learn or take away from the workshop. The results of both the questionnaire and sticky note activity are detailed below.

Evaluation

Before starting the workshop, we asked participants “What they wanted to learn today?” Here are a few responses:

- Protection Resources for Seniors
- How to Stay Healthy
- Resources
- Cost of Living
- Energy
- Best way to help the environment
- Saving Energy
- What is included in a weatherization kit
- What other ways as a resident I can do to reuse, reduce, recycle
- How to weatherize my home to save energy
- What to do in an emergency? Steps to take.
- How can we make weatherization accessible for Seniors
- Reducing Electricity bills
- More about the environment. Solar options are pros and cons.

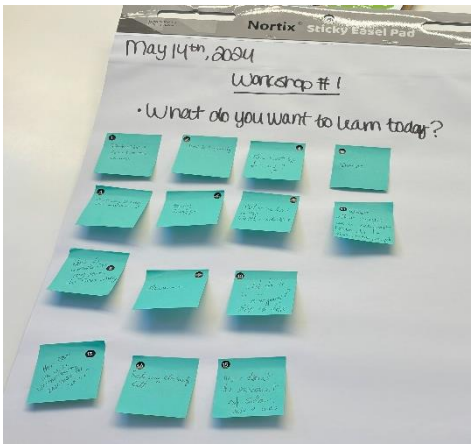


Image 3: Illustration of Sticky Notes

The questionnaire for this workshop asked participants about their perception of weatherization, as well as their willingness before and after the workshop to perform weatherization activities like insulating their homes, performing home audit inspections, and increasing landscaping to ensure energy efficiency.

In workshop 1, held at the Gulfton facility, a total of 16 participants completed the pre-evaluation survey, with an average response rate of 88.87%. Demographically, 75% of participants identified as female and 25% as male, while 50% were over the age of 55. Additionally, 62.5% of participants had a college education, 93.75% reported an annual income lower than $15,000, and 62.5% identified as minorities.

In workshop 2, held at the Eastend facility, a total of eight participants in the study, with an average response rate of 92.68%. In terms of demographics, 75% of participants identified as female, and 25% as male. The majority, 87.5%, were over 55 years old, and the same percentage had a college education. Additionally, 75% of participants reported having an income greater than $15,000, and 100% identified as minorities.

To analyze the data we used descriptive statistics, and a statistical index to determine change in participants knowledge respectively. For the purposes of this workshop the participants from Gulfton and Eastend workshops were combined to provide a more robust sample. Note three surveys were dropped from the final sample as they were incomplete or illegible surveys.

The results of the questionnaire indicated that on average participants came into the workshop with limited knowledge of weatherization. When asked to define weatherization at the start of the workshop one participant described the term as *"Preparing for weather changes; insulation or cooling."* By the end of the workshop the same participant was able to elaborate on the meaning of weatherization *"Preparing home for weather changes by sealing windows preventing door drafts and heat and a/c loss.*"

While their was no right or wrong answer to defining weatherization the level of detail in the definition increased post workshop as compare to pre-workshop definitions. In fact 32% of those who answered the question "define weatherization." Increase the detail of their definition post workshop as compared to pre-workshop. See Figure 1: Weatherization Word Cloud below for a word cloud comprised of participant definitions.

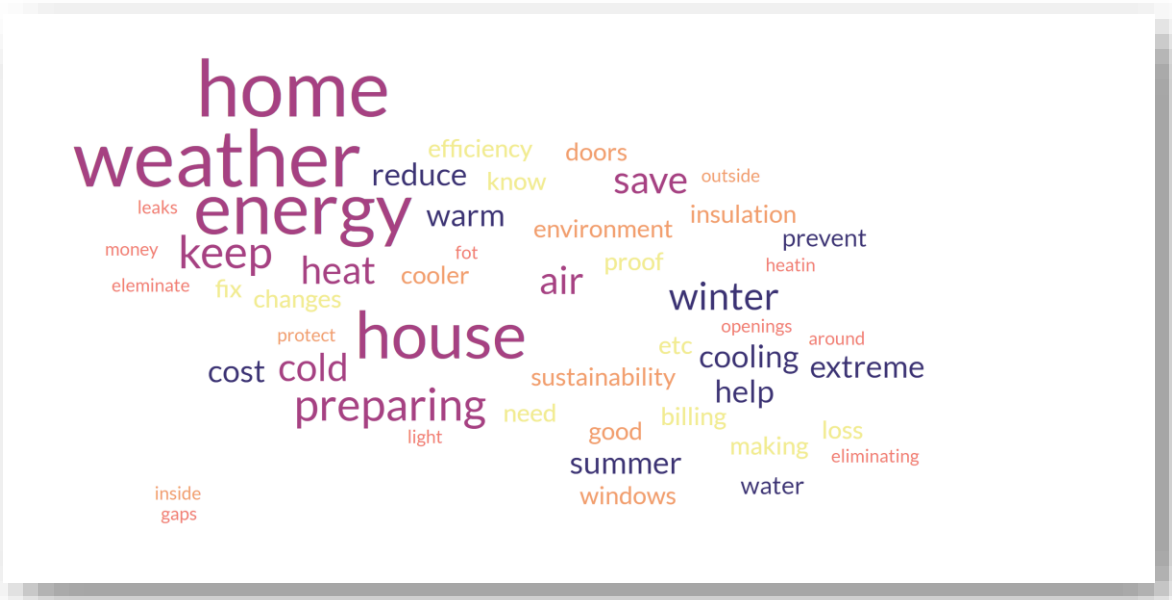


Figure 1: Weatherization Word Cloud

During the pre-evaluation, most participants rated the importance of weatherization for saving energy, reducing bills, and keeping their home cozy as a 5 on a scale of 1 to 5. This rating did not change in the post-evaluation. Similarly, the majority rated their willingness to weatherize their home as a 5, with no change in the post-evaluation results.

Participants showed a 58.63% increase in willingness to engage in weatherization activities post-workshop. The greatest increase was observed in "installing storm windows or using window insulator kits," followed by "sealing gaps and cracks in walls, floors, and foundations" and "insulating attics, walls, and floors to improve thermal efficiency."

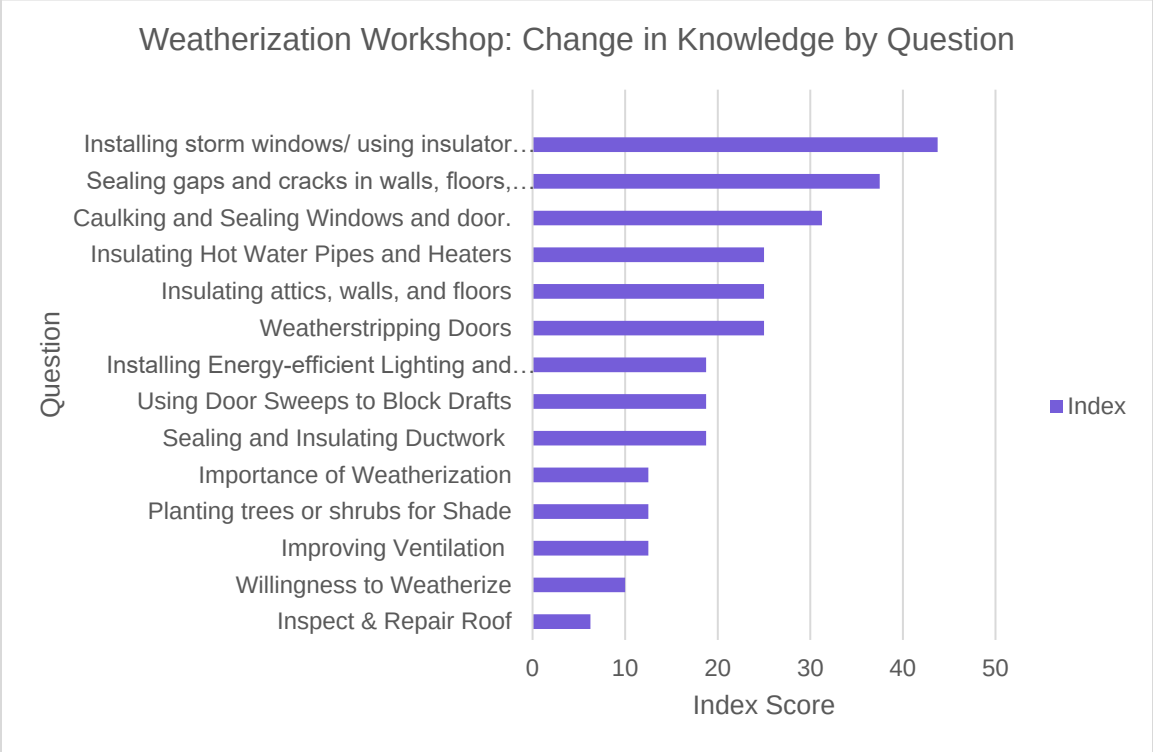


Figure 2: Weatherization Workshop Knowledge Change by Question

In reviewing the data by question the study showed that participants willingness to weatherize their home changed by 10%. The largest change was observed in participants willingness to install storm windows (43%), seal gaps (37%), install caulking and sealing of windows (30%). Participants willingness to perform other weatherization techniques ranged from 20% to 30%. See Figure 2: Weatherization Workshop Knowledge Change by Question for a full list of questions and percent change per question.

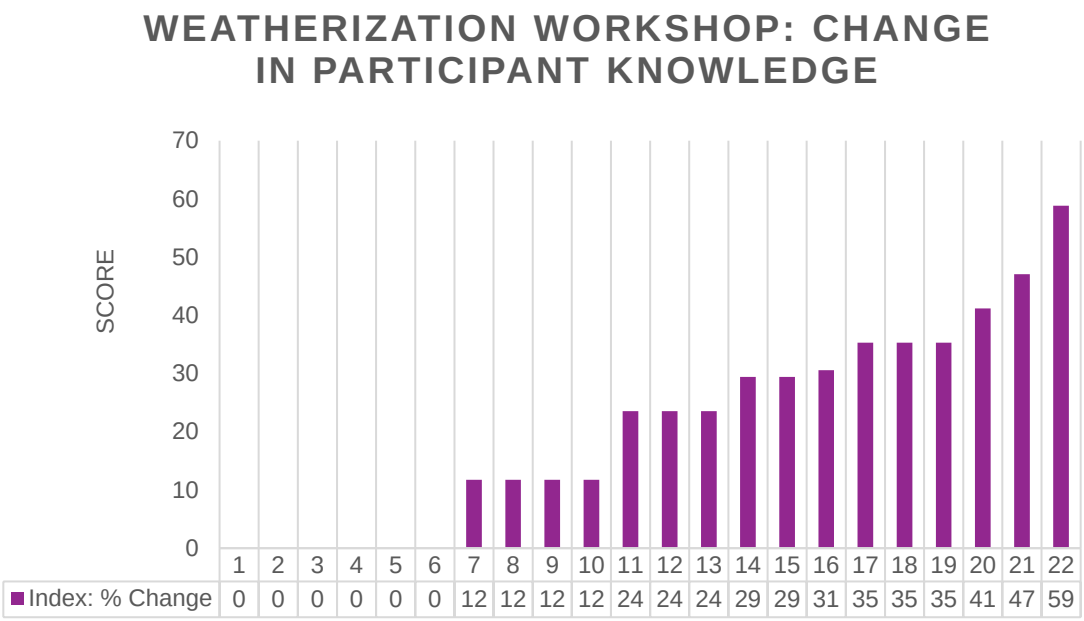


Figure 3: Weatherization Workshop: Change in Participant Knowledge

When evaluating the participant change in knowledge all participants who answered the questionnaire experienced a change in knowledge. Pre-workshop, on average participants scored 50% on the questionnaire, post-workshop participants scored 70% with an average change in knowledge of 21%. See Figure 3: Weatherization Workshop: Change in Participant Knowledge for percent change graphic of participant scores.

Challenges & Recommendations

- Although recruitment targets weren't met, participants were highly engaged, satisfied, and eager to share their new knowledge.
- Participants left with tools and contacts, but clearer partner communication and coordination could help track who utilized provided resources.
- The workshop content proved valuable, suggesting that future planning should consider tailored sessions for youth and families.
- The major speaker for the second workshop was unable to attend due to an emergency, in the future it is important to always be prepared with an alternative lesson plan to ensure quick pivots/adjustments.

Disaster Preparedness

Description:

The family-focused disaster preparedness training was designed to teach both adults and children skills to keep themselves and their loved ones safe during emergencies. In collaboration with the City of Houston Community Emergency Response Team, adults received disaster preparedness training covering essential topics: building a disaster preparedness kit, making evacuation plans, organizing in-home emergency supplies, and developing communication strategies.

Meanwhile, in collaboration with AmeriCorps and The K.A.P.S. Disaster Hub, children embarked on an engaging adventure with Al the Bear, who guided them through disaster preparedness. Using storytelling and hands-on activities, children learned the importance of staying calm during emergencies, how to identify safe places, and basic first aid techniques.

This unique event aimed to empower families to effectively prepare for a disaster.

Partners

Adult Primary Speaker: Houston Community Emergency Response Team

Children Primary Speaker: AmeriCorps

Children Secondary Speaker: The K.A.P.S. Disaster Hub

Audience Type:

The audience for this disaster preparedness workshop primarily consisted of families with children residing in the Houston area.

For the adults' workshop, the participants were parents, guardians, and other adult family members responsible for the safety and well-being of their households. These individuals sought practical guidance on how to prepare for and respond to various types of emergencies, such as natural disasters or other unexpected events.

The children's workshop was designed for kids of various ages, from elementary school to early teenage years. These children, attending with

their families or caregivers, were curious, energetic, and eager to learn. While they had varying levels of prior knowledge about emergencies and disaster preparedness, they shared a common interest in understanding how to stay safe and help their families during challenging times.

Overall, the audience was diverse in age, background, and level of experience, united by their shared desire to enhance their preparedness and resilience in the face of potential disasters.

Learning Objectives:

The weatherization workshop aimed to achieve two key objectives:

- **Equip** community members with knowledge and skills to respond to disasters.
- **Empower** youth with practical preparedness tools and appropriate education to understand the importance of disaster preparedness, identify potential risks, and confidently take appropriate actions to stay safe.

Incentives

- Disaster Preparedness Kit
    - Backpack
    - Disaster Preparedness Family Book
    - Disaster Preparedness Child Book
    - Toiletry Kit
    - Flashlights
    - Pen/Notebook (Adult)
    - Water Bottle
    - Warming Blanket
    - Colors (Child)

Site

The first workshop took place at the Verizon Forward Center in Gulfton, with 12 participants, 4 volunteers, and 7 vendors in attendance. The second workshop took place at the Verizon Forward Center in East End with 12 participants, 8 volunteers, and 7 vendors in attendance. Both workshops were held in the gym whereas the gym was divided into two

spaces. Space A was for adults and Space B was for children. Both spaces were arranged in a classroom style.

Image 4: Depiction of gym setup

Image 5: Depiction of Child Training Sessions

Before the workshop began, participants were provided with a pre- and post-workshop questionnaire during registration, along with instructions on how to complete them. The results of both the questionnaires are detailed below.

Evaluation:

In workshop 1, held at the Eastend facility, a total of 12 participants completed the pre-evaluation survey. Demographically, 50% of participants identified as female and 50% as male, while 63% were over the age of 55. Additionally, 41% of participants had a college education, 63% reported an annual income lower than $15,000, and 37% identified as minorities.

In workshop 2, held at the Gulfton facility, a total of eight participants were in the study. In terms of demographics, 58% of participants identified as female, the remaining identified as male. The majority, 41%, were over 55 years old, and 16% had a college education. Additionally, 25% of participants reported having an income greater than $15,000, and 50% identified as minorities.

We analyzed the data using descriptive statistics, chi-square test, and an index to assess statistical significance and changes in participants' knowledge. For this workshop, the data from the Gulfton and Eastend

workshops were combined to create a larger and more representative sample. It is important to note that one survey was excluded from the final sample due to being incomplete or illegible.

The results of the questionnaire indicated that on average participants came into the workshop with limited knowledge of disasters. When asked to define disasters at the start of the workshop one participant described the term as an *"Event causing destruction"* Another participant described the term as *"A situation that is life threatening that after is nature inspired."*

By the end of the workshop participants expanded on the initial definitions: one participant defined a disaster as a *"Natural or manmade that affect a large group of people negatively"* another participant described a disaster as *"An event or catastrophic that cause damage and death."* See Figure 4: Word Cloud of Disaster Preparedness Adult Responsesfor a word cloud comprised of participant definitions.

Figure 4: Word Cloud of Disaster Preparedness Adult Responses

During the pre-evaluation, the majority of participants rated the importance of preparing for a disaster as a 5 on a scale of 1 to 5, with no change in the post-evaluation. Similarly, participants rated their willingness to prepare their home for a disaster as a 5 in the pre-evaluation, which also remained unchanged in the post-evaluation. When asked to rate the effectiveness of the disaster preparedness workshop, most respondents gave a score of 5.

There was an average 69.64% increase in participants willing to engage in emergency preparedness activities. The largest change in preparedness behavior was related to the prompt, "Do you practice each of these plans every 6 months?", followed by *"Do you have a written evacuation plan that outlines routes and designated meeting points for the members of your household?"* and *"Have you ever attended a disaster preparedness workshop?"* However, there was no change in the prompt, *"Do you know how to contact local emergency personnel, hospitals, resources, and shelters?"*

Upon reviewing the data by question, the results showed that participants were more willing to practice the two types of plans—evacuation and communication—with a 24% increase from the pre-survey to the post-survey. When asked about their willingness to conduct a home hazard assessment, complete a preparedness kit, and create a written evacuation plan, 17% of participants demonstrated a change in knowledge. Participants were also asked to rate their willingness to prepare for a disaster, the importance of disaster preparedness, whether they had a list of emergency contacts and a written communication plan, and if they knew how to shut off their utilities. The change in knowledge for these items ranged from 12% to 10%. Refer to Figure 5: Disaster Preparedness Knowledge Change by Question for a visual representation of change in knowledge by question.

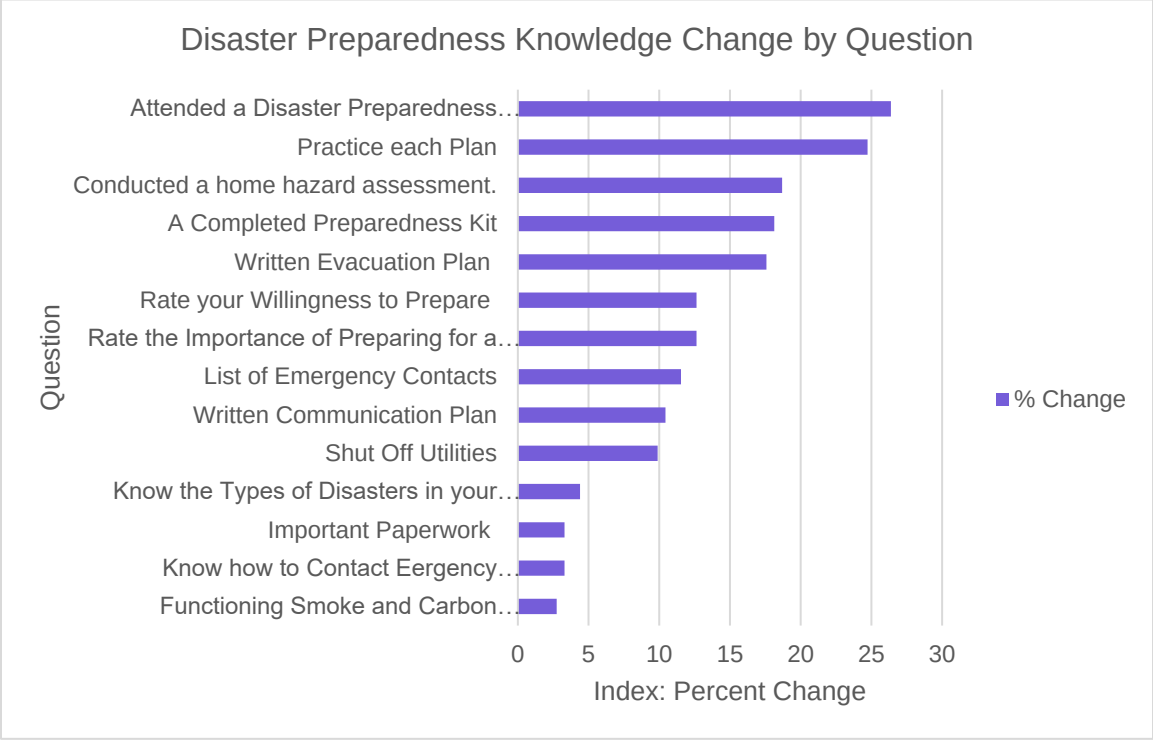


Figure 5: Disaster Preparedness Knowledge Change by Question

In assessing the change in participants' knowledge, all those who completed the questionnaire showed an improvement. The participants who experienced a change knowledge had scores ranging from 7% to 95%, scores in the higher percentage reflect the largest change in knowledge. Only one participant did not experience a change in knowledge. Refer to Figure 6: Disaster Preparedness Knowledge Change By Participant for a visual representation of the pre-workshop, post-workshop, and percentage change in participant scores.

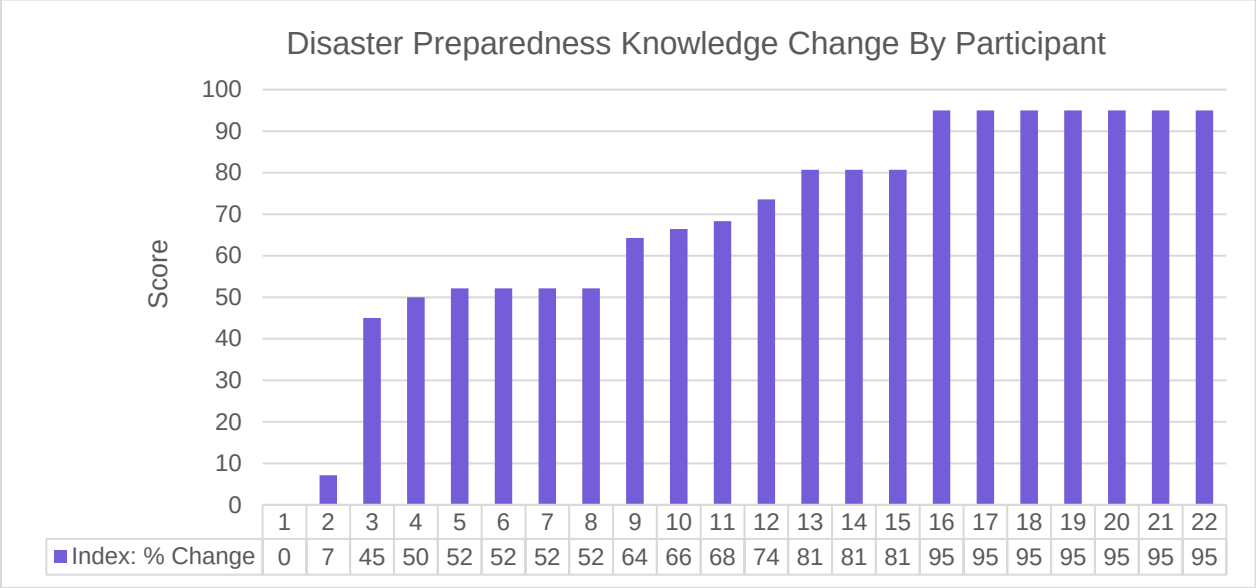


Figure 6: Disaster Preparedness Knowledge Change By Participant

Disaster Preparedness Kids:

There were five participants in the study, with an average response rate of 89.09%. Demographically, 40% of the participants identified as female, and another 40% as male, with an average age of 10.5 years. A majority, 60%, were in elementary school, and 60% identified as minorities. During the pre-evaluation, most participants rated the importance of preparing for a disaster as a 5 on a scale of 1 to 5. Similarly, they rated their willingness to help their parents get ready for a disaster as a 5. In the post-evaluation, most participants also rated their confidence in their disaster preparedness as a 5 after attending the workshop.

In the pre-evaluation, when asked to describe the word "disaster," only one participant responded, describing it as a "travesty." However, in the post-evaluation, all participants identified specific disasters such as "Hurricane Ian" or "tornadoes," and described a disaster as "something bad." When asked in the post-evaluation what the most important thing they learned from the workshop was, participants mentioned protective actions like "stop, drop, and roll," "be safe," and "call 911." See Figure 7: Children Disaster Preparedness Word Cloud.

Figure 7: Children Disaster Preparedness Word Cloud

When asked to assess their knowledge of various disaster preparedness activities before and after the workshop, only two questions showed a notable increase in scores. Specifically, children's scores improved by 40% on the following questions: "Are you aware of the types of disasters that may impact your family?" and "Do you know how to call 911?"

For the remaining questions—"Have you practiced what to do if there's a fire at home?" and "Do you know where the closest safe place (such as a school, police station, fire department, or community center) is located?"—scores ranged between 90% and 100%. This high baseline suggests that children were already knowledgeable in these areas, or that more detailed questions may be needed for deeper insights. Question illustrates these questions and their results.

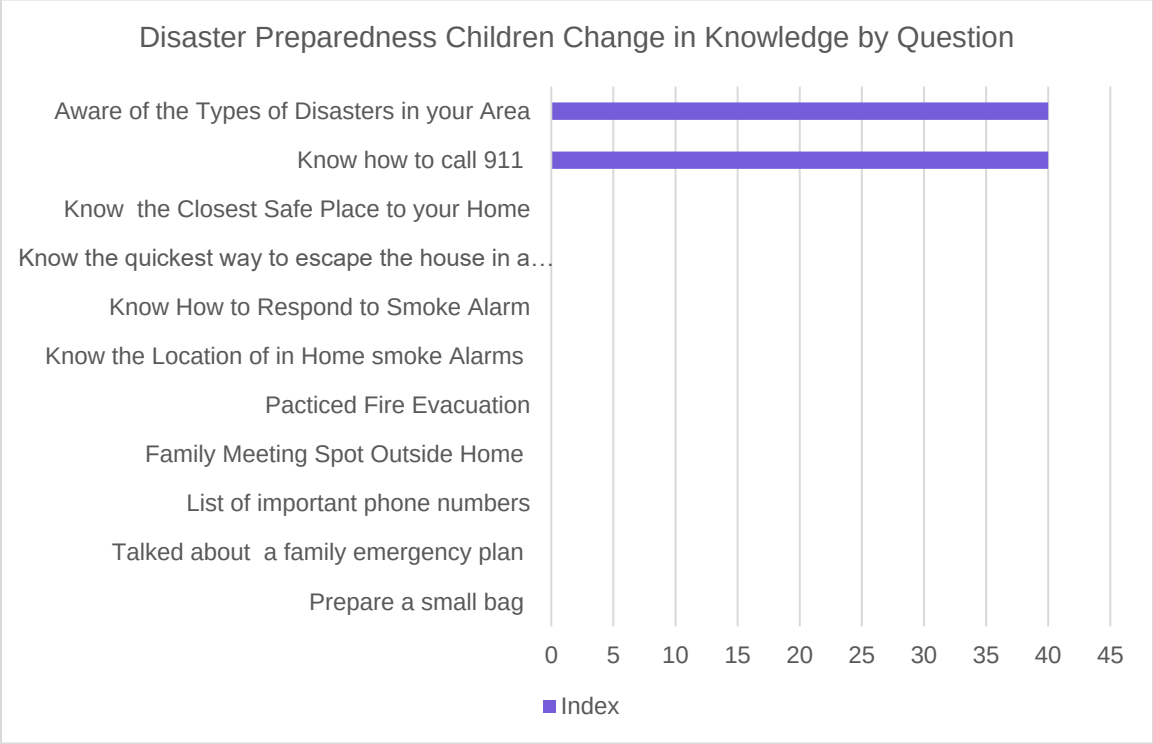


Figure 8: Disaster Preparedness Children Change in Knowledge by Question

The evaluation of children's overall knowledge change revealed that all participants demonstrated some level of knowledge gain, with four out of five showing an increase exceeding 70%. These results suggest that every child who attended the workshop benefited from the learning experience.

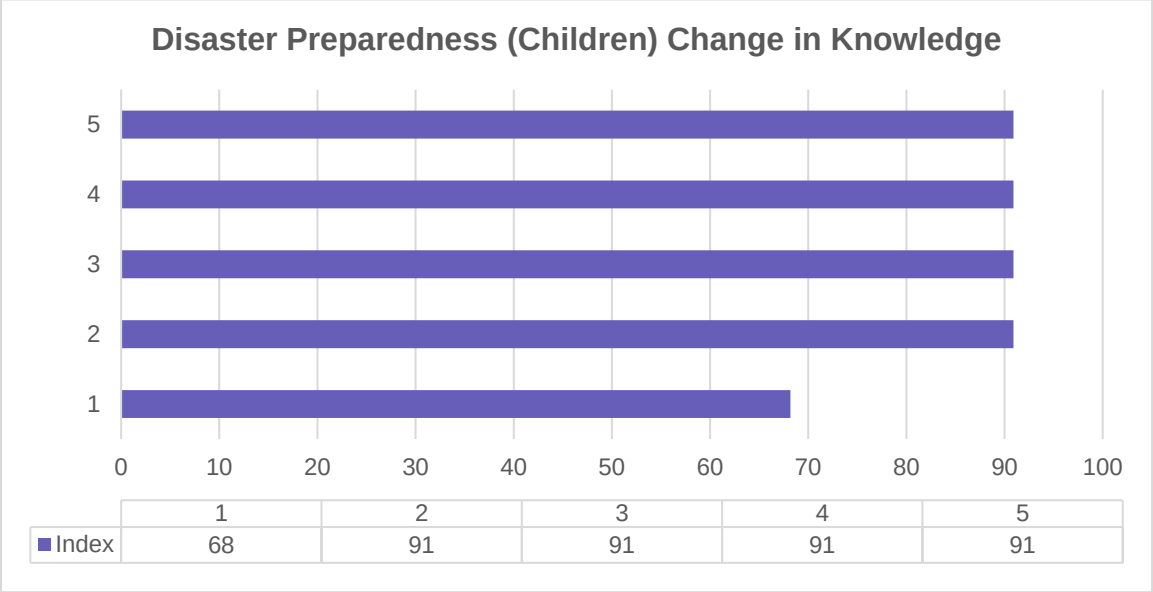


Figure 9: Disaster Preparedness (Children) Change in Knowledge

Challenges & Recommendations

- While adult participants stated they enjoyed the presentation and that the presenters were knowledgeable. One suggestion is to add a skills section at the end of the workshop to ensure that participants can apply the knowledge gained.
- Additional participant recruitment is needed to ensure robust participation.
- Suggest having a smaller auditorium instead of a gym so the audience can feel more inclusive.
- Recommend a separate area for the children session to occur simultaneously as the parents.

The Green Economy: Young Adult Mixer and Career Fair

Description

The Green Economy: Young Adult Mixer and Career Fair was a two-part event that connected young professionals, recent graduates, and organizations. In part one of the event young adults were provided with a one and half our workshop where they learned how to dress for success, build their resume, and professionally approach workplace confrontations.

In the second part of the workshop young adults were provided with an opportunity to network and explore career opportunities focused on reducing carbon emissions, improving energy efficiency, and protecting biodiversity. Young adults were immersed in opportunities to connect, learn, and engage with individuals working in green jobs and who are passionate about climate resilience, innovation, and equity. The mixer portion of the event allowed young adults to network with peers, recruiters, and representatives from various companies and industries. Attendees were afforded an opportunity to exchange contact information, discuss career goals, and learn about different career paths in climate resilience work.

Audience Type

The audience for this *The Green Economy: Young Adult Mixer and Career Fair* primarily consisted of students, recent graduates, or young professionals residing in the Houston area.

The young adults who attended this workshop were passionate about making a positive impact on the planet. These individuals sought practical guidance on how to best prepare for the workplace and engage in climate jobs.

The audience was diverse in age, background, and experience, all brought together by a shared commitment to making a positive impact on the world.

Learning Objectives

- **Equipped** young professionals with insight into career possibilities in climate resilience and understood the steps to pursue them.
- **Empowered** young professionals with the skills to tailor resumes for the climate industry, highlighting relevant skills and experiences.
- Young professionals **acquired** tips for effectively presenting their qualifications and commitment to the environmental sector during interviews.

Incentives

- Portfolios

Study Site

The first workshop took place at the Verizon Forward Center in Eastend, with 21 participants, 3 volunteers, and 12 vendors in attendance held in collaboration with L.E.E.D. With Joy LLC. Staff provided instruction during the workshop portion of the training on topics related to dressing for success, resume building, and workplace confrontation.

Image 6: Students Illustrating Dressing for Success

Image 7: Students at the Mixer With Speaker

Students who attended this workshop were primarily undergraduate students from Texas Southern University. The mixer portion of the event was held directly after whereas students were able to network directly with potential employers.

The second event took place at the Verizon Forward Center in Gulfton with 10 participants, 2 volunteers, and 9 vendors in attendance. This event was set primarily as a mixer whereas members of the broader community were invited into network directly with potential employers.

For both events participants were provided with a pre- and post-workshop questionnaire during registration, along with instructions on how to complete them. The results of both the questionnaires are detailed below.

Evaluation

There was a total of 21 participants in the study, with a 90.48% response rate. In the pre-test, when asked to rate their familiarity with career opportunities in the climate and environment field on a scale of 1 to 5, the majority of participants gave a score of 4. However, this average dropped to 3 in the post-test. When asked about their willingness to incorporate sustainable practices into their career decisions, participants consistently rated it a 4 in both the pre- and post-tests. Similarly, when asked to rate their confidence in networking effectively at professional events, most participants rated their confidence as 4, with no change after the workshop.

Participants were moderately confident (scoring 3) in their ability to create an elevator pitch. Additionally, most participants did not have a resume specifically tailored for environmentally focused job opportunities, with an average score of 0.14 (Yes-1, No-0). On a scale of 1 to 5, the majority rated their awareness of the importance of sustainability in the workplace as a 4, while their insight into tailoring a resume and elevator pitch for environmental job opportunities was rated at a moderate level (3).

In analyzing the climate mixer results by question, the largest knowledge increase 70% was noted for " raising awareness of sustainability in the workplace," whereas other questions showed changes of up to 12%. These findings suggest that either the questions may need refinement to better capture knowledge change, or the assessed themes were not key factors for attendees when considering job opportunities. See Figure 10: Climate Mixer Results by Question.

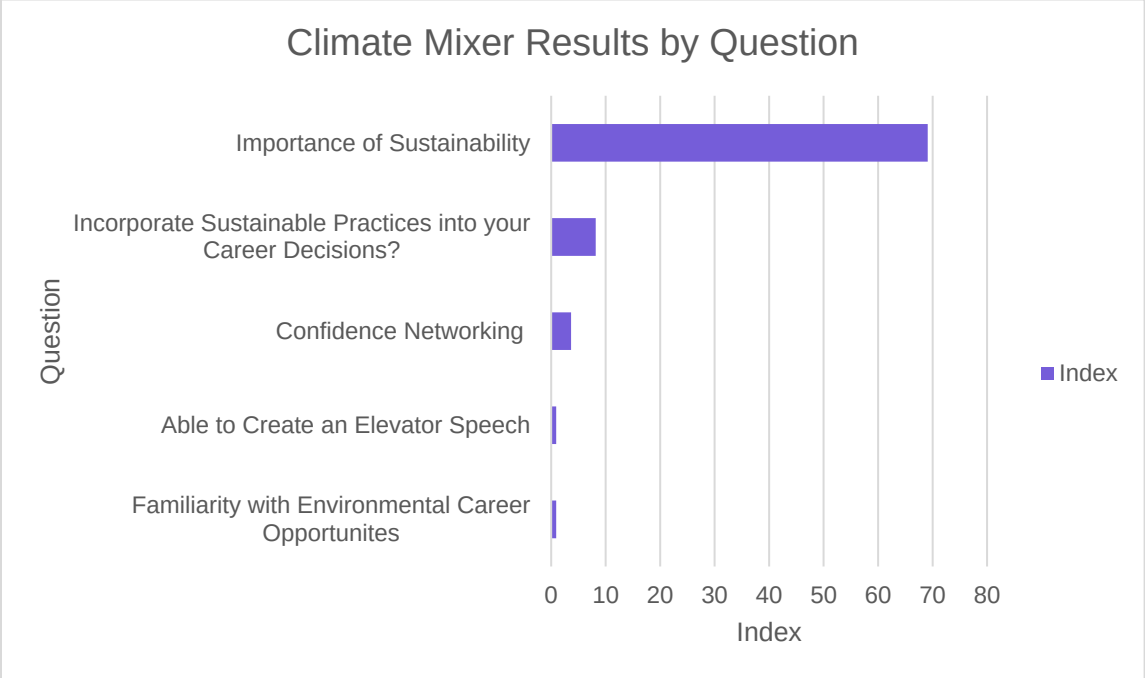
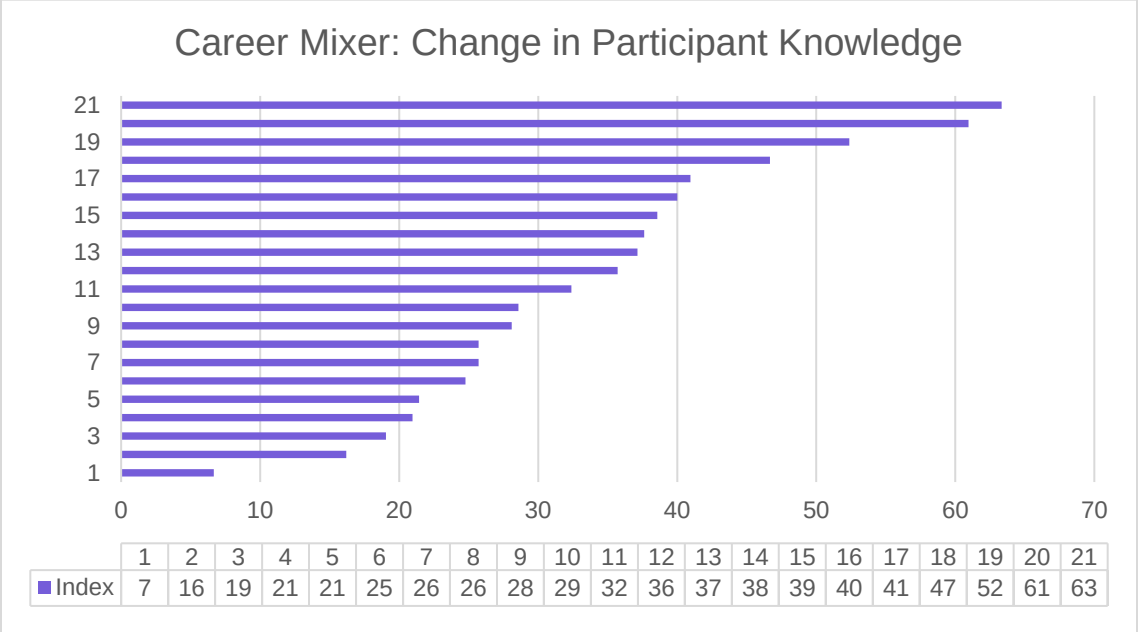


Figure 10: Climate Mixer Results by Question

The effectiveness of the workshop in raising awareness of sustainability in the workplace was also rated at 3 by most participants.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Index	7	16	19	21	21	25	26	26	28	29	32	36	37	38	39	40	41	47	52	61	63

Figure 11: Career Mixer: Change in Participant Knowledge.

When asked if attending the Climate Mixer/Career Fair boosted their confidence in pursuing a climate industry career, most participants responded positively, averaging a score of 0.79 (Yes=1, No=0).

In terms of knowledge gains, four participants showed increases of over 45%, while the others saw improvements between 5% and 45%, indicating that all attendees expanded their knowledge of climate change and green energy through the workshop.

Additionally, most attendees rated the event a 4 out of 5 for providing practical strategies and tips for climate industry job interviews, highlighting the workshop's effectiveness.

When asked to describe the most valuable takeaways from the workshop students stated the following:

- How to write a great resume
- I learned the dress for success can help a lot
- The way we dressed helped how I should go about first impressions, code switching, etc.
- I learned the difference between a CV and a regular resume
- I gained new insight from this mixer.
- I realized I can use environmental justice in my communication major
- I learned about how to create several resumes for the orientation of each position you are interested in.
- I've learned just how many job opportunities there are in the climate field and how to use my connections to achieve them
- I learned how my resume should look and what should be on there
- How I need to tailor my resume for each opportunity
- C.V.'s are important
- How great my resume should be and what is required on it.
- How their jobs work, what they do and its very interesting
- List what you can do on resume
- Difference in attire
- Resume/Professional attire
- learn how to communicate with the world
- How to create a good resume

- Have more quality in my clothes and resume
- The new strategies and the tips were definitely the sum portions I really needed it
- How to build resumes and CV
- Insight on how to present myself during interview
- The style advice
- I have just learned to be more cautious when entering "new" professional settings
- Mainly work-place "dress." I learned something new about business casual, and "business ready"
- Build better resumes and how to dress accordingly
- How to properly present yourself
- Speak louder, speak clearer, relax, know who you are, know what you bring

The major themes centered around building strong resumes and understanding the distinctions between resumes and CVs, with a focus on customizing each application to specific job opportunities. Participants also learned about professional attire, differentiating between business casual and "business ready" to make effective first impressions.

Practical tips for interview and communication skills were shared, emphasizing clear speaking, confidence, and self-awareness. Additionally, there was an increased awareness of the diverse job opportunities available in the climate and environmental justice fields, with insights into how various academic backgrounds, like communication, can intersect with these sectors. Finally, participants recognized the value of networking, learning how to leverage connections strategically to achieve their career goals in the climate industry. See the word cloud below to see how those themes were translated to participants.

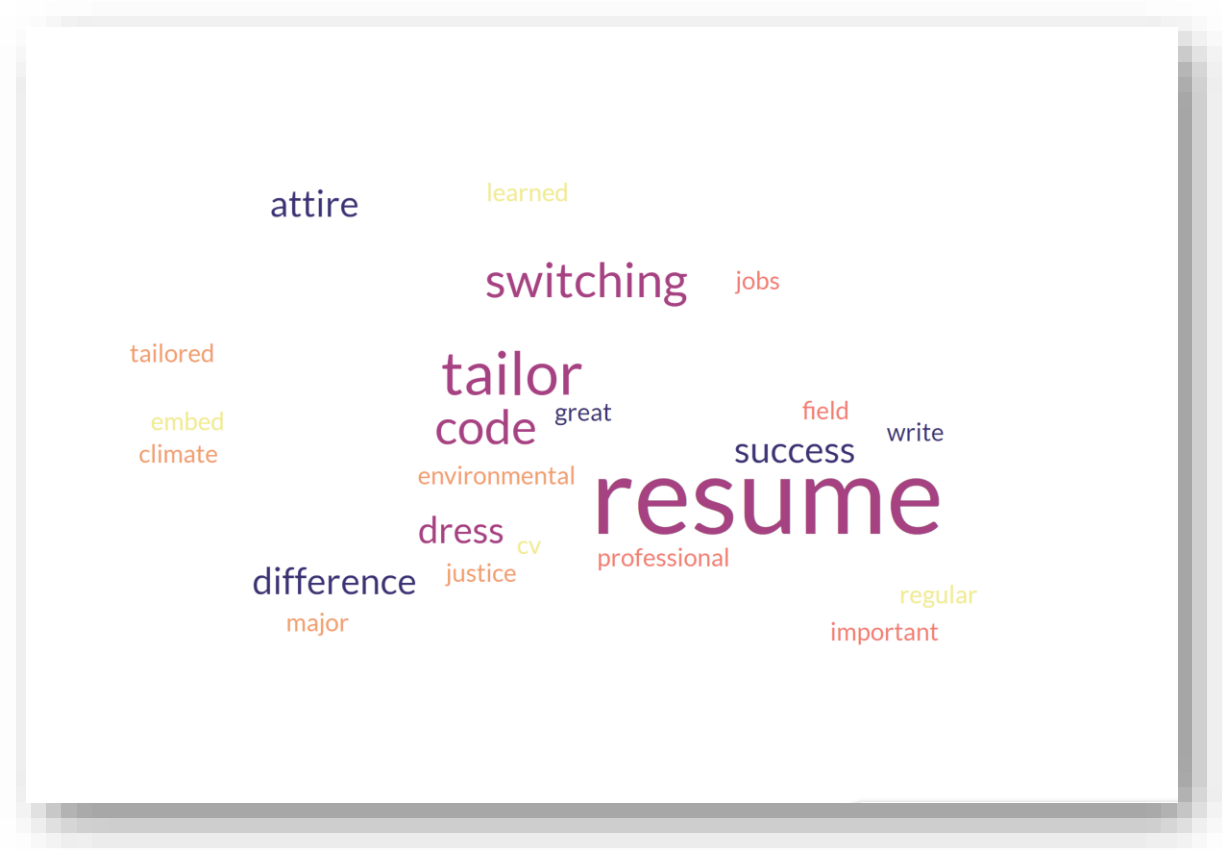


Figure 12: Career Mixer Word Cloud

Challenges/ Recommendations

- Increase partnerships among stakeholders who can provide career opportunities
- Increase marketing strategy to increase participant attendance
- In the event that a major speaker can not attend the workshop – always keep an extra presentation available.

Camp

Description

The Climate Science Camp provided an immersive, educational experience for K to 5th graders. Campers explored the connections between climate change, environmental justice, and community resilience.

Through hands-on experiments, interactive demonstrations, and discussions, students explored how natural disasters like hurricanes, floods, and wildfires are influenced by environmental and human factors.

Partners

Primary Speaker: The K.A.P.S. Disaster Hub

Stakeholder: The Baker Ripley School

Vendors: None

Audience Type

For this workshop we partnered with the Baker Ripley Schools in Eastend and Gulfton. The schools provided 30 students each ranging from K – 5th grade who had an interest in climate science.

Learning Objectives

- *Investigate* the science behind extreme weather events and their connection to climate change.
- *Engage* in hands-on projects to better understand the impact of climate and environmental issues affecting the Houston community.

Incentives

- Science Backpacks
    - Chips & Juice
    - Googles
    - Lab-coat

Study Site

The camp was held in partnership with the Baker Ripley summer school program in both the Eastend and Gulfton Communities. The first

workshop was held at the Gulfton Campus. The room was set up classroom style, with climate science experiments on every table. Before participating in the experiments students were asked to put on proper PPE which included gloves, lab coats, and goggles. Students were then guided through each experiment and the climate science relevance to their age group.

Image 8: Children Completing Science Experiments

Image 9: Al the Bear Playing With Children

Image 10: Children Playing Twister

For the first workshop held at the Gulfton Campus we were given 45 minutes to provide instruction to various one grade levels at a time. Each session consisted of upwards to 20 students. For this workshop we ordered pre-made science experiments from Amazon. Those experiments included: Tornado Tubes (K-1st grade), Instant Snow Kit (2nd-3rd), Elephant Toothpaste (4th grade), and Traffic Light Experiment (5th grade).

The second workshop was held at the Eastend campus in the gym in collaboration with their end of school bash. We designed the gym in a manner where incoming students could do round robin around a table with all climate science experiments. In this workshop we added magnets as a science experiment option.

Relevance of Experiments

- Tornado Tubes (*K-1st grade*): This experiment required students to add water into two tubes in which a vortex formed when shaken. It was used to illustrate how tornados form at rapid speeds. Students were also taught that changes in the weather will lead to increased climate events like tornados and hurricanes.
- *Instant Snow Kit (2nd – 3rd grade):* This experiment was two-fold in where participants were able to actively engage and learn about the impacts of snow on communities. Here we used polymers combined with water to illustrate that as climate change continues to increase there will also be an increase of climate related events like snow that will increase and become more intense. We also used the kit to illustrate absorption ability. We used polymers as an example substance that can absorb water at a higher rate than cotton balls illustrated that it's a better substance to act as a sandbag and stop flooding. This directly correlates to the real world as engineers are using polymers as sandbags to protect property from damage.
- Elephant Toothpaste (4th grade): In this experiment students combined hydrogen peroxide, with dish soap, and yeast. The reaction caused by mixing all of these ingredients together leads to an exothermic reaction where heat is exuded from the bottle and at the same time carbon dioxide is released and the substance foams and bubble over. This experiment is directly related to climate change because as the heat carbon dioxide is trapped in the atmosphere it heats up the earth similar to the reaction that occurs in the bottle.
- Traffic Light Experiment: Redox reactions are fundamental in atmospheric chemistry, influencing gases like methane (CH_4) and carbon dioxide (CO_2), with methane oxidizing to form CO_2 and

water, a key process in climate modeling. The traffic light experiment's color changes mirror how pollutants like nitrogen oxides react with light and oxygen, affecting air quality and contributing to smog and acid rain. Additionally, redox reactions drive carbon cycling in oceans and soils, critical carbon sinks that store CO_2, helping scientists evaluate CO_2 absorption versus emissions to predict climate change impacts.

- Magnets: Playing with magnets can demonstrate concepts related to climate change by illustrating Earth's magnetic field and the role of magnetism in renewable energy. The Earth's magnetic field, for instance, protects the planet from solar radiation, and shifts in this field are studied to understand long-term environmental changes. Additionally, magnets are essential in generating renewable energy through wind turbines and electric motors, both of which use magnetism to convert motion into electricity without burning fossil fuels, thus reducing greenhouse gas emissions. Experiments with magnets can introduce these foundational ideas in climate science and clean energy technology.

After students completed the camp, they were provided with their own science kit to take home. The science kit included a backpack, googles, lab coats, and a light snack.

Evaluation

Rather than conducting a formal evaluation using questionnaires we used sticky notes and had the students write or in some cases verbally describe some of the major themes associated with the camp. During the summer camp workshops, participants engaged deeply with two overarching themes: weather phenomena and preparedness. Each theme was explored through specific sub-categories.

For weather phenomena, campers discussed a range of observable atmospheric events, including precipitation (rain, snow, sleet, hail), temperature variations, humidity, wind, cloud formations, storms (strong winds, heavy precipitation, thunder, lightning), and fog. These discussions highlighted how weather events like hurricanes, tornadoes, droughts, and high temperatures can influence climate and daily

weather conditions, illustrating both natural processes and their impact on human life.

Preparedness emerged as a central theme, with participants exploring proactive steps to effectively respond to and recover from disasters. The workshops covered essential aspects of preparedness, such as planning (e.g., evacuation routes, communication strategies), training in emergency skills (first aid, emergency response), and resource management (securing medical supplies, food, water, shelter). Exercises and drills were also discussed to ensure readiness, alongside risk assessments to evaluate community vulnerabilities. Participants emphasized community engagement to promote a culture of readiness. Key preparedness tools discussed in the workshop included emergency kits, LED light bulbs for energy efficiency, recycling practices, and sandbags to mitigate flooding.

These themes helped campers connect practical actions with broader environmental processes, fostering a sense of responsibility and empowerment in their understanding of weather, preparedness, and community resilience.

Challenges/ Recommendations

- If possible, securing the age groups of participants before the workshop to better prepared with coordinating experiments that are age appropriate.
- Incorporating larger climate science community-based programs (i.e. NASA, Hoston Zoo, Houston Aquarium)

Back to School Workshop

Description

The Climate & Environmental Justice Back-to-School Bash empowered families and students by combining community support with environmental awareness for a meaningful start to the school year. The event provided opportunities to prepare for the upcoming academic season while addressing climate and environmental challenges in the community.

Students, families, educators, and local vendors gathered to distribute essential school supplies and engage in informative exhibits, workshops, and presentations on climate resilience and environmental stewardship. Participants learned about renewable energy, recycling, and waste reduction while local vendors showcased eco-friendly products and green solutions aimed at promoting a more sustainable future.

Partners

Primary Speaker: None

Volunteers: Texas Southern University Students, Community volunteers, COCO Block Captains

Vendors:

Audience Type

The Climate Back-to-School primary audience were students and their families from the two communities East End and Gulfton.

Families attended to ensure their children had the necessary school supplies while also offering them opportunities to learn about sustainability.

Students of all ages participated, excited to start the school year and engage in activities related to climate resilience.

Local vendors and community organizations showcased products and initiatives promoting sustainability and community engagement.

Learning Objectives

- *Increase* Awareness of Climate Change and Environmental Challenges affecting the participants community.
- *Develop* an understanding of climate science and the environmental challenges facing their community.
- *Promote* Sustainable Practices and Environmental Stewardship.

Incentives

- Backpack
    - Notebook
    - Colors
    - Pencils
    - Glue
    - Pencil Sharpener
    - Pencil Pouch
    - Index Cards

Study Site

The workshop was held for the broader community, whereas vendors from all over the city were invited to showcase their resources to promote climate resilience.

Image 11: Volunteer Conducting Experiment

Image 12: COCO Leader

Image 13: COCO Volunteer

The first event was held at the Eastend Campus gym (5 Volunteers, 29 Vendors), and the second event was held at the Gulfton Campus gym (8 volunteers, 25 Vendors). The gyms were set up in two sections. In section A vendor tables were set up around the room to showcase and provide resources to students and their families. In section B climate related experiment tables were set up around in the middle of the room in a round robin style.

For this workshop we ordered pre-made science experiments from Amazon. Those experiments included: Tornado Tube, Instant Snow Kit, Elephant Toothpaste, Traffic Light Experiment, Potato Clock, and Liquid Battery Science.

Relevance of Experiments

- Tornado Tubes: This experiment required students to add water into two tubes in which a vortex formed when shaken. It was used to illustrate how tornados form at rapid speeds. Students were also taught that changes in the weather will lead to increased climate events like tornados and hurricanes.
- *Instant Snow Kit:* This experiment was two-fold in where participants were able to actively engage and learn about the impacts of snow on communities. Here we used polymers combined with water to illustrate that as climate change continues to increase there will also be an increase of climate related events like snow that will increase and become more intense. We also used the kit to illustrate absorption ability. We used polymers as an example substance that can absorb water at a higher rate than cotton balls illustrated that it's a better substance to act as a sandbag and stop flooding. This directly correlates to the real world as engineers are using polymers as sandbags to protect property from damage.
- Elephant Toothpaste: In this experiment students combined hydrogen peroxide, with dish soap, and yeast. The reaction caused by mixing all of these ingredients together leads to an exothermic reaction where heat is exuded from the bottle and at the same time carbon dioxide is released and the substance foams and bubble over. This experiment is directly related to climate change because as the heat carbon dioxide is trapped in the atmosphere it heats up the earth similar to the reaction that occurs in the bottle.
- Traffic Light Experiment: Redox reactions are fundamental in atmospheric chemistry, influencing gases like methane (CH_4) and carbon dioxide (CO_2), with methane oxidizing to form CO_2 and water, a key process in climate modeling. The traffic light

experiment's color changes mirror how pollutants like nitrogen oxides react with light and oxygen, affecting air quality and contributing to smog and acid rain. Additionally, redox reactions drive carbon cycling in oceans and soils, critical carbon sinks that store CO_2, helping scientists evaluate CO_2 absorption versus emissions to predict climate change impacts.

- Magnets: Playing with magnets can demonstrate concepts related to climate change by illustrating Earth's magnetic field and the role of magnetism in renewable energy. The Earth's magnetic field, for instance, protects the planet from solar radiation, and shifts in this field are studied to understand long-term environmental changes. Additionally, magnets are essential in generating renewable energy through wind turbines and electric motors, both of which use magnetism to convert motion into electricity without burning fossil fuels, thus reducing greenhouse gas emissions. Experiments with magnets can introduce these foundational ideas in climate science and clean energy technology.
- Potato Clock: The Potato Clock uses a simple electrochemical reaction to produce electricity, illustrating how organic materials can generate small amounts of power. This concept parallels bioenergy, where organic waste is used to produce clean energy.
- Liquid Battery Science: experiment shows how chemical solutions can store and release electricity, which models large-scale renewable energy storage systems, such as flow batteries, that store wind and solar energy

Student participants were given the opportunity to participate in seven climate science experiments that directly related to the environmental issues within their community. After completing the round robin students were given a backpack with school supplies.

Evaluation

At a back-to-school event, students participating in a series of climate-related experiments gained valuable insights through five core themes: sustainability, wildlife, weather phenomena, preparedness, and human impact.

Sustainability emerged as a key focus, highlighting the importance of integrating long-term environmental, social, and economic factors to mitigate and adapt to climate change. Students explored how sustainability is essential for creating resilient systems capable of enduring and recovering from climate challenges without compromising future generations' needs.

The experiments introduced them to concepts like mitigation—reducing greenhouse gas emissions through practices like renewable energy—and adaptation strategies such as managing water resources and planning for rising sea levels. Students also learned about sustainable development, community resilience, and the role of education in promoting sustainability. Practical applications discussed during the experiments included recycling, conservation efforts, and planting trees to address coastal flooding.

Wildlife, another significant theme, emphasized how climate change impacts various species and ecosystems. Through experiments and discussions, students explored how rising temperatures, habitat loss, changes in food availability, and shifting migration patterns are forcing species to adapt or face extinction. Participants learned how disruptions in ecosystems, such as forest and marine habitats, are affecting species like polar bears, sea turtles, and coral reefs. These activities deepened their understanding of the connection between climate change and biodiversity loss, as well as the importance of conserving wildlife.

Weather phenomena were also a prominent topic, as students delved into the science behind atmospheric events such as hurricanes, tornadoes, droughts, and heatwaves. The experiments helped them understand how these events are linked to broader climate patterns and how they impact both the environment and human life. Participants observed how weather patterns are changing due to global warming and discussed the potential for more frequent and severe natural disasters.

Preparedness was another essential theme, where students learned about the proactive measures needed to respond to and recover from climate-related disasters. They explored emergency planning, resource management, and community engagement, emphasizing the

importance of being ready for potential hazards. Through hands-on activities, students gained insights into creating emergency kits, using energy-efficient tools like LED light bulbs, and preparing sandbags for flood prevention. These exercises highlighted how individual and community efforts can reduce disaster risks and support quicker recovery.

The final theme, human impact, focused on how human activities have contributed to climate change and the urgent need to reduce greenhouse gas emissions. Students examined the role of industrialization, deforestation, and fossil fuel dependence in driving global warming, as well as the effects of urbanization, transportation, and waste management on the environment. The experiments underscored the importance of transitioning to renewable energy, adopting sustainable practices, and minimizing human impact to protect the planet for future generations.

Overall, these climate-related experiments allowed students to engage with real-world issues, deepening their understanding of sustainability, the environment, and the importance of taking action against climate change.

Challenges/Recommendations

- Because of the diverse age groups coming at various times it made it complex to fully evaluate the experiences, effectiveness, and changes in knowledge for each child.
- In the future have a side event with a dedicated space for children to actively engage along with the back-to-school drive for parents may be better method of application

Toxic Tour

Description

The Toxic Tour of Houston took undergraduates students HBCU Climate Corp summer program presented by the Robert D. Bullard Center for Climate and Environmental Justice at Texas Southern University on an eye-opening journey through key areas of environmental concern within the city of Houston, Texas. The Tour sought to shed light on the severe impacts of industrial pollution and environmental injustice around the city.

Participants learned about the disproportionate burden these communities bear, often low-income and predominantly minority populations, and how industrial activities contribute to public health issues like asthma, cancer, and other chronic conditions. The tour not only highlighted the environmental hazards but also emphasized the resilience of these communities and the ongoing efforts to fight for cleaner, healthier living conditions through advocacy and policy change.

The tour focused on neighborhoods located near chemical plants, oil refineries, and waste facilities, where residents face heightened risks of exposure to toxic air, water, and soil contamination. The tour went through Black and Latino neighborhoods that historically have been invisible, neighborhoods whose residents are disproportionately impacted by environmental threats in the air, water and ground, near their schools and playgrounds, including Fifth Ward/Kashmere Gardens neighborhoods plagued by illegal waste dumping and where the Union Pacific Railroad contaminate site and cancer cluster are located, Manchester located fence line with chemical plants on the Houston Ship Channel, Pleasantville impacted by industrial encroachment and flooding, and the Sunnyside neighborhood that has a long history of flooding, open ditches and drainage problems.

The sites represent low-income and predominantly minority populations and demonstrate how industrial activities contribute to public health issues like asthma, cancer, and other chronic conditions. This area is locally referred to as the Cancer Cluster. The tour not only highlighted the environmental hazards but also emphasized the resilience of these

communities and the ongoing efforts to fight for cleaner, healthier living conditions through advocacy and policy change.

Partners

Primary Speaker: Rev. Caldwell, Coalition of Community Organizations

Stakeholder: Robert D. Bullard Center for Climate and Environmental Justice at Texas Southern University

Audience Type

This toxic tour sought to engage undergraduate students from the 2024 HBCU Environmental Justice Climate Corps (EJCC) Summer Program. The tour engaged 21 students and began representing 10 HBCUs from diverse backgrounds.

Learning Objectives:

- *Develop* a understanding the Environmental and Health Impacts of Industrial Pollution affecting vulnerable communities in Houston Texas.
- *Recognize* the Role of Environmental Injustice and explore how environmental injustices disproportionately affect low-income and minority communities, developing an awareness of the social and economic factors that contribute to the unequal distribution of environmental hazards.
- *Promote* Advocacy and Community Resilience and empower participants to engage in environmental advocacy, learning about the ongoing efforts by local communities to combat pollution, improve public health, and push for policy changes that address environmental justice and sustainability.

Study Site

The tour was a two-hour tour across the broader community. The students completed ground truthing of textbook examples of environmental injustice by participating in a “toxic tour” of some of Houston’s most environmentally threatened neighborhoods.

The tour will through Black and Latino neighborhoods that historically have been invisible, neighborhoods whose residents are disproportionately impacted by environmental threats in the air, water

and ground, near their schools and playgrounds, including Fifth Ward/Kashmere Gardens neighborhoods plagued by illegal waste dumping and where the Union Pacific Railroad contaminate site and cancer cluster are located, Manchester located fence line with chemical plants on the Houston Ship Channel, Pleasantville impacted by industrial encroachment and flooding, and the Sunnyside neighborhood that has a long history of flooding, open ditches and drainage problems.

This event was not hosted by COCO rather sponsored by COCO. Therefor their is no evaluation data to report.

Image 14: Toxic Tour Participants

Climate Resiliency Tour & Asset Mapping

Description

While the "Toxic Tour" was solely a tour-based event, the "Houston Climate Resilience Tour" was a two-part event: Community Asset Mapping Workshop and Sites Tour

Community Asset Mapping Workshop

Part One was a hands-on workshop where participants learned the practicality of community asset maps to document and track environmental hazards in their communities. During the workshop, participants had the opportunity to apply their knowledge by creating their own asset maps in group pairings.

Sites Tour

Part Two included participants visiting four sites significantly impacted by climate change in Houston, Texas historic Fifth Ward. The four sites included: Olivewood Cemetery, Fifth Ward/Kashmere Garden Union

Pacific Railroad Site Contamination and Area Cancer Cluster, Evergreen Negro Cemetery, and Old Bruce Elementary School.

Including cemeteries and environmental hazard sites in the conversation around climate change is essential for several reasons. First, cemeteries represent significant cultural and historical landscapes, often containing the final resting places of communities that have historically faced systemic injustices, such as African American and Indigenous populations. These sites embody legacies, memories, and community identities, and they are irreplaceable markers of cultural heritage that are vulnerable to climate-induced risks like flooding, erosion, and extreme weather events.

Throughout this tour, participants engaged in community assessment mapping of environmental risks and hazards at each site, including the two historic cemeteries. This hands-on experience illustrated the importance of addressing climate change, environmental justice, and historic preservation within the context of urban planning and policy. Understanding these interconnected issues can better protect our communities from environmental threats and build a more just and sustainable future.

Partners

Primary Speaker: Cemetery Sista

Stakeholder: Houston Climate Week

Volunteers: Texas Southern University Students

Vendors:

Audience Type

The Climate Resiliency tour's primary audience were community members from the broader Houston community. For this event we partnered with Houston Climate week to bring in diverse participants across the city.

Learning Objectives

- Develop an understanding, historic and current, of the environmental and health impacts of industrial pollution affecting communities across Houston.
- Acknowledge the impact of environmental injustice by seeing and hearing how low-income and minority communities are disproportionately affected by industrial pollution and climate-related events; while also learning about the ongoing efforts by local communities to combat pollution, improve public health and push for policy changes that address environmental justice and sustainability
- Create a collaborative and welcoming learning environment where participants across Houston can connect and learn about their cities shared history and resilience.

Incentives

- Portfolios
- Draw String Backpacks

Study Site

The workshop was open to the broader Houston community. This one-off event was divided into a two-part workshop. The first part of the tour was held at the Carl Walker Community Center where participants were provided with an opportunity to engage in a hour workshop on the importance of protecting cultural assets in the face of a changing climate. The second part of the tour was a three-hour tour across the broader Houston community.

At each stop participants were allowed to deboard the bus and explore each climate at risk area. Participants were asked to perform a pre-post questionnaire as well as risk assessment analysis for each site. The results of those questionnaires and risk assessments are presented below.

Evaluation

Initially designed for college students, the Climate Resiliency Tour expanded its target audience to include a diverse group of participants as it was integrated into Houston Climate Week events. The final demographic included students, professionals, and community members from various racial and ethnic backgrounds who share interests in environmental science, environmental justice, mapping, historic preservation, and climate change. A total number of 55 people attended the workshop. The age range started from eight years old and upward.

This one-off event was divided into a two-part workshop. The first part of the tour was held at the Carl Walker Community Center where participants were provided with an opportunity to engage in a hour workshop on the importance of protecting cultural assets in the face of a changing climate. The second part of the tour was a three-hour tour across the broader community. The tour had four stops: Olivewood Cemetery, Fifth Ward/Kashmere Garden Union Pacific Railroad Site Contamination and Area Cancer Cluster, Evergreen Negro Cemetery, and Old Bruce Elementary School. At each stop participants were allowed to deboard the bus and explore each climate at risk area. Participants were asked to perform a pre-post questionnaire as well as

risk assessment analysis for each site. The results of those questionnaires and risk assessments are presented below.

This evaluation was conducted to assess the overall impact and effectiveness of the “Climate Resiliency Tour. By gathering insights from participants and analyzing key aspects of the tour, this evaluation aims to identify strengths, areas for improvement, and any additional value added through community engagement. Participant feedback is central to understanding how well the tour met its objectives of enhancing environmental awareness, fostering community resilience, and highlighting the significance of historic cemeteries in environmental justice. The results will inform future tour implementations and contribute to the ongoing development of impactful community-based programs.

In the post-tour survey, participants highlighted essential features for asset mapping and shared valuable insights gained during the tour. 45% of participants identified cultural heritage sites and customs as the most important elements to include on an asset map, while 36% prioritized physical features like schools, parks, and emergency services. Human features were considered key by 10% of participants, with another 5% emphasizing social networks and organizations, and the final 5% focusing on economic features as critical. When asked about the most valuable things they learned, participants gave diverse responses, including the connection between increased cancer diagnoses and chemical exposure or soil contamination, the need for community preservation, and expanded knowledge of geography and local history. Social issues related to contamination, a deeper understanding of historic cemeteries, insights into contamination and gentrification, awareness of broader environmental issues, and the importance of resource allocation were also among the insights shared. These reflections underscore the participants' heightened awareness of the interconnectedness of cultural heritage, environmental risks, and community resources.

When asked if there were any community assets or resources they hadn’t previously considered that stood out during the study,

participants identified a diverse range of features. Responses included unexpected resources like amphitheaters, gravesites, cultural sites such as churches and monuments, as well as social gathering areas and the people themselves as integral assets. Participants also noted the importance of contaminated land, emergency services, community centers, and schools, highlighting a broader awareness of the variety of elements that contribute to community identity and resilience.

Challenges/ Recommendations

Below is the direct feedback we received from the post- tour survey.

- Participants shared additional resources on how communities create and utilize asset maps and ensure multiple perspectives within the community are represented.
- Participants expressed enthusiasm for similar events in the future, reinforcing the value of continued community engagement and hands-on learning opportunities.
- People cited high temperatures, reaching the upper 90s, posed discomfort, as did the need for appropriate attire and bug spray to navigate outdoor conditions.
- Site accessibility was noted; given site contamination participants were only able to view them from the bus, unlike the hands-on exploration permitted at the cemetery sites.
- Participants expressed interesting for more time in the itinerary to engage with their group, explore each site further, and reflect on the experience together.
- They let us know what they learned, when asked if there were any community assets or resources they did not consider before the tour. Responses ranged from identifying community members as valuable assets for storytelling and cultural knowledge, along with contaminated lands, historical sites (especially cemeteries), emergency services, and community centers as overlooked yet essential resources.

- Some participants expressed difficulty processing the magnitude of environmental injustices and displacement that have historically impacted the local community. They recognized the importance of sharing accurate information within their communities and valued the responsibility of representing environmental and cultural issues truthfully.
- We heard a resounding yes to the question "*Do you see opportunities to use asset mapping in your work or community in the future?"*. All participants responded positively, underscoring the practical relevance and potential for community-based applications of asset mapping techniques.
- Participants also shared insights on challenges they face in their community when trying to leverage their assets; these included: 1) limited funding and resources, 2) uncertainty on how to begin organizing community-led initiatives like citizen science, 3) Systemic barriers, including racism, which impact population size and visibility, 4) Development pressures and encroachment by developers, 5)Lack of awareness and actionable knowledge on resolving environmental issues within the community

Disaster Recovery

Description:

The disaster recovery training was designed to provide the community with key recovery skills needed to keep themselves and their loved ones safe after an emergency.

The workshop was hosted in collaboration with the City of Houston Emergency Management Team and the Coalition for Environment, Equity, and Resilience (CEER). The community received disaster recovery training covering essential topics: building a Muck Bucket, making post-event recovery plans, how to turn off utilities, and how to work with reputable contractors for repair.

This unique event aimed to empower families to effectively prepare for a disaster.

Partners

Primary Speaker: Coalition for Environment, Equity, and Resilience (CEER) and The Houston Emergency Management Office

Vendors:

Audience Type:

The audience for this disaster recovery workshop primarily consisted of community members from the Houston area. This workshop was only held in the Eastend community. Attendees sought guidance on how to recover from natural disasters.

Learning Objectives:

The weatherization workshop aimed to achieve two key objectives:

- **Equip** community members with knowledge and skills to recover from a disaster.
- **Empower** community members with the practical tools and appropriate education to understand the importance of disaster recovery.

Incentives

- Muck Buckets

- 5 Gallon Bucket
- Bleach
- Lysol
- Gloves
- Sponges/Brushes
- Mask

Study Site

This workshop took place at the Baker Ripley House in Eastend, with 17 participants, 3 volunteers, and 7 vendors in attendance. The workshop was held in a classroom at the Baker Ripley House. Before the workshop began, participants were provided with a pre- and post-workshop questionnaire during registration, along with instructions on how to complete them. The results of both the questionnaires are detailed below.

Evaluation:

There were 17 participants in the study, with an average response rate of 85.19%. Demographically, 88.24% identified as female, 11.76% as male, 5.88% were over 55 years old, 82.35% had a college education, 64.71% reported an income above $15,000, and 76.47% identified as minorities.

In the post-evaluation, most participants rated the importance of recovering from a disaster as a 5 on a scale of 1 to 5. Additionally, the effectiveness of the disaster recovery workshop and its speakers was rated a 5 by the majority.

Disaster recovery activities showed an average increase of 58.31% in participant engagement. The two activities with the highest increases were *"Do you have a completed emergency recovery kit or a supply bucket ready in case of disaster?"* and *"Have you conducted a home hazard assessment to identify and mitigate potential risks, such as securing heavy furniture or checking for fire hazards?"* Participants generally answered positively to questions about having functioning *smoke and carbon monoxide detectors* and *being aware of the types of disasters most likely to occur in their area*.

In assessing changes in knowledge by question participants scored an over a 50% change on questions related to performing a hazard

assessment, list of post storm recovery contacts, and update and practice recovery plan and kit. This indicates that after leaving the workshop participants were more knowledgeable about these four topics. See Figure 13: Disaster Recovery By Question for a visual depiction of the changes in knowledge by question.

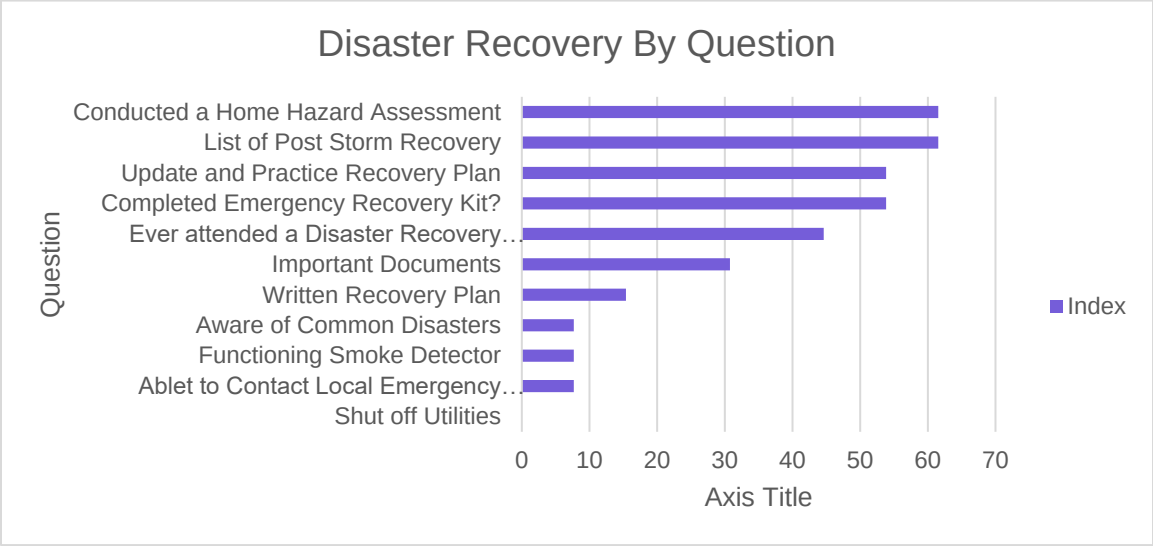


Figure 13: Disaster Recovery By Question

All participants demonstrated some level of knowledge increase, with nine out of eleven respondents reporting gains of over 60% in disaster recovery knowledge. These results suggest that attending the workshop enhanced participants' understanding of disaster recovery. See Figure 14: Disaster Recovery: Changes in Knowledge by Participant to view the changes in knowledge by participants who attended the Disaster Recovery Workshop.

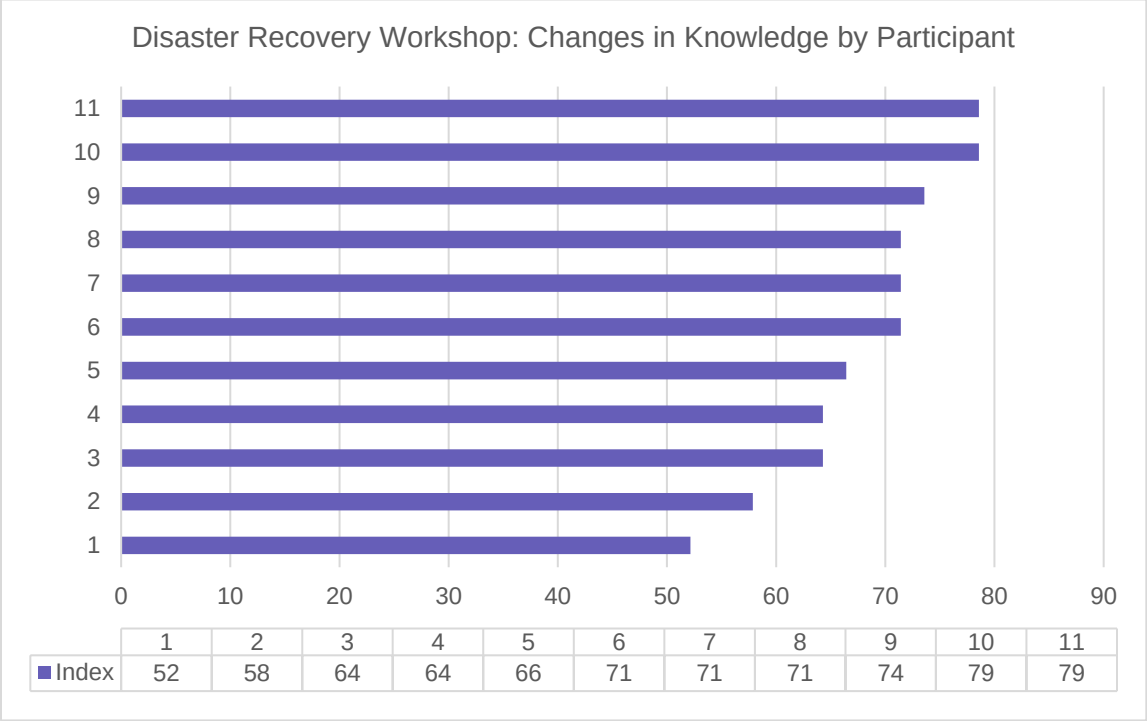


Figure 14: Disaster Recovery: Changes in Knowledge by Participant

Challenges/Recommendations

- Add a skills section to test participants changes in knowledge
- Address both preparedness and recovery in the same workshop

VI.CONCLUSIONS

The Climate Connect Workshops were broadly successful in achieving their primary goal of increasing participant knowledge across a range of climate-related topics. Attendees across all sessions reported measurable knowledge gains, indicating the effectiveness of each workshop in delivering practical, accessible information.

Each session targeted specific areas critical to climate resilience, including weatherization techniques to improve energy efficiency, disaster preparedness skills for both individuals and families, and the science of climate change to deepen participants' understanding of the environmental challenges at hand.

Additional sessions included a climate science camp, aimed at fostering curiosity and foundational knowledge in younger participants; a climate resiliency tour, which provided on-site insights into resilience-building practices; and a disaster recovery workshop focused on strategies for communities to rebuild sustainably. Collectively, these varied topics helped attendees build a comprehensive understanding of climate resilience, from prevention to recovery.

Despite the program's success, executing these workshops involved significant planning challenges. Factors such as changing weather conditions, location constraints, and participant availability required organizers to remain adaptable. Situational adjustments, like modifying workshop formats or shifting venues, were essential to maintain engagement and continuity.

These adaptations underscored the importance of flexibility in program planning, particularly in climate-focused initiatives where real-world environmental factors can directly impact event execution. Ultimately, these challenges were overcome, allowing the Climate Connect Workshops to deliver impactful, actionable climate knowledge to all participants.

Contact

Joy Semien

Program Manager | Coalition of Community Organizations (COCO)

Owner & Founder | L.E.E.D. With Joy LLC

leedingwithjoy@gmail.com

225-800-2017

Thank you.

To learn more, visit our website.