

**Perceived Environmental  
Responsibility: How Undergraduate  
Students' Educational and Social  
Background Influences Their Role in  
Addressing Sustainability Challenges**

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## Introduction

Climate change stands as one of the most pressing challenges of our time, an issue affecting all of the Earth's inhabitants. The main sources of global climate change are human-induced changes in atmospheric composition. There is still great uncertainty about the rates of change that can be expected, but these changes will be increasingly manifested in tangible ways, such as changes in extremes of temperature, precipitation, and sea level rise. Anthropogenic climate change is now likely to continue for many centuries. We are venturing into the unknown with climate, and its associated impacts could be quite disruptive (Karl & Trenberth, 2003). Yet, how people perceive this crisis varies significantly across social identities such as age, socioeconomic status, upbringing, and more. Younger generations, particularly Millennials and Gen Z, often express the highest sense of urgency fueled by awareness that they will bear the long-term consequences of a changing planet. Older generations tend to feel less of a need to address the issue, a perception shaped by technological and economic growth prevalent during their lifetime. In a 2021 study by the Pew Research Center, 77% of participants in Gen Z said that addressing global climate change is one of their most important concerns, 37% of those participants listing climate change as their top concern (Funk, Kennedy, & Johnson, 2021). However, studies from the *Yale Program on Climate Change Communication* highlight the common distrust in media that younger and older generations share. While Gen Z and Millennials are more likely to trust scientists, they are not any more inclined to believe what they see in mainstream news media (Yale Program on Climate Change Communication, n.d.).

Education level also plays a critical role in shaping climate change perspectives. A study by Wodika et al suggested that the quality of climate change instruction they receive is a significant factor in shaping college students' understanding and concern about climate change. This research surveyed 264 students from various departments at a large Midwestern university to examine how their major influenced their knowledge, attitudes, and behaviors related to climate change. The study found that students majoring in science disciplines, particularly Agricultural Science, exhibited higher levels of climate change knowledge and more positive attitudes toward climate change compared to students in non-science majors like Engineering and Mass Communications (Wodika & Schoof, 2017). In addition to the quality of climate education, the team also suggests that students' prior beliefs also play a role in shaping their understanding of climate change. Individuals who have experienced extreme weather events are more likely to attribute them to climate change. However, those who are skeptical about climate change are likely to dismiss these events as unrelated. This suggests that experiencing climate-related events may not be enough to convey the severity of the issue to the public (Sambrook et al. 2021).

## Goals

Our overall goal is to explore how a student's college education and/ or personal identity influence their personal environmental responsibility. For this research, personal environmental responsibility is defined as the amount of accountability an individual feels to care for the natural world surrounding them. We aim to better understand how students' values, shaped by both their academic disciplines and broader social backgrounds, impact their perceptions of environmental sustainability. While there is literature describing the relationship between education level and

climate change belief, there is little understanding of the impact the professional field in higher education may have. This understanding is crucial for recognizing how different perspectives shape attitudes toward climate action, informing more effective communication strategies that resonate across diverse educational and social contexts. Specifically, we seek to address the question: *Do educational and/ or social background affect the level of personal environmental responsibility that Colorado State University students feel?* By examining this intersection, we hope to bridge the gap between varying generational and disciplinary perspectives, ultimately contributing to a more comprehensive approach to fostering environmental responsibility on campus.

## Approach & Methods

Firstly, we created a survey to examine the variables that might impact environmental responsibility, to get a strong understanding of how undergrads at CSU perceive this responsibility to the environment. We wanted to take a large sample across majors, colleges, and backgrounds. We kept the survey short and convenient, taking less than five minutes for the majority of students to finish, hoping to encourage participation without being too taxing. The survey included a mix of multiple-choice and short-answer questions. They were intended to gather information on students' educational exposure to sustainability, their everyday habits towards the environment (e.g., energy saving or composting), political orientation, cultural identity, and childhood experiences. We were particularly keen to find out whether students felt that their environmental responsibility was more shaped by their education or by their family background and social environment.

We conducted the survey using Google Forms and distributed it online and on campus. We installed posters with a QR code in various locations around campus—at the Warner building, a dorm and some academic buildings to get a large sample of people. We also shared the link through group chats, class announcements, and among friends to reach students in various majors. In total, we received 53 responses that provided a strong sample size and allowed us to identify students interested in participating in follow-up interviews. We chose to do the interviews after the survey to give people the option to discuss certain topics further, including topics focused on educational and social backgrounds. This also ensured that everybody we interviewed filled out the survey as well.

Each member of our group interviewed two people, from all of the major colleges at CSU. This led to an overall 12 student interviews. In comparison to the design of the survey, our interview questions circled back on some of the bigger subjects regarding environmental responsibility and how your values, upbringing, or educational choices have affected one's views or beliefs on the subject. Our questions had five different categories: Influence of Education, Personal Engagement with Environmental Issues, Behavioral Practices and Challenges, Social and Cultural Influences, and Future Outlook and Aspirations, each with 2 questions, some with multiple parts, ending in over 10 total questions. The questions we wanted to have answered from our interviews were whether people's childhood, personal interests, or values drove them to feel, or not feel, responsible for our environment. These questions asked students to reflect on specific experiences like classes or professors that shaped their views on sustainability. We also explored what outside factors have influenced their thinking, such as family, culture, or where

they get their information. We were sure to keep our questions neutral to avoid leading languages so that every response was personal and unique. The type of data we collected from our interviews was strictly qualitative because all questions were open-ended, leaving room for people's thoughts, feelings, motivations, experiences, and meanings behind their answers. Responses were not inherently numeric or statistically structured, all participants were asked the same questions and the responses all varied in depth, context, and language.

Their responses were recorded, transcribed, and analyzed for common themes like academic impact, personal motivation, and the role of community. To analyze these interviews, we discussed answers we acquired from the interviewees to find and better understand the bigger patterns in the answers. This helped us piece together a more personal picture of how students at CSU develop their sense of environmental responsibility. This two-part approach allowed us to explore both broad trends and deeper personal narratives. The combination of survey and thematic analysis provided insight into how CSU students think about environmental responsibility and the factors that shape their actions and beliefs.

## Results & Discussion

To better understand how students perceive and act on environmental responsibility, we conducted a survey targeting undergraduate students across various colleges and majors. Below, in Figure 1, each of the different colleges that responded to the survey can be seen. The survey asked questions about academic exposure to sustainability topics, personal habits, political and cultural identity, and early life experiences. Our goal was to identify trends in how students develop their environmental worldviews and what influences their actions. One question in particular helped reveal a key insight into the long-term impact of early exposure on environmental responsibility.

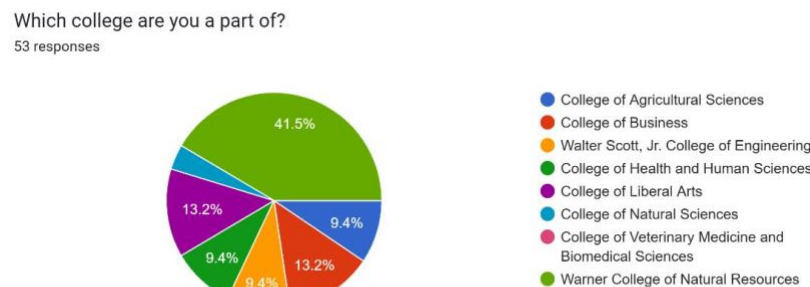


Figure 1: Breakdown of CSU students per college to better understand how major impacted the results of our survey. From the survey results in Google Survey

Referencing Figure 2 below, the question “Do you think your education has influenced your views on environmental responsibility?” can be seen. This question itself revealed some of the clearest trends. While about 50% of respondents answered “Significantly,” their behaviors, such as composting, reducing energy use, and avoiding single-use plastics, often reflected values shaped before college. Responses to this and related questions showed that early exposure to environmental ideas through family, community, or media played a major role in shaping

personal responsibility. This suggests that college education tends to reinforce rather than initiate environmental worldviews and that early-life experiences are critical in building long-term environmental values.

Do you think your education has influenced your views on environmental responsibility?  
53 responses

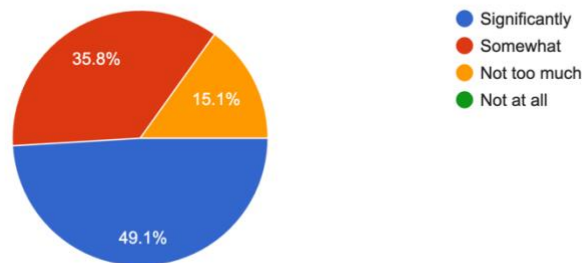


Figure 2: Pie chart showing results to the question: “Do you think your education has influenced your views on environmental responsibility?”  
From the survey results in the Google Survey

Overall, through our 12 interviews with students, we gathered qualitative data, with results that emphasized two significant factors involved in personal environmental responsibility levels. We gathered this through group discussion and recurring patterns across transcripts. These two key components were both positively correlated with the level of personal environmental responsibility. These two components are personal interest in the outdoors and more exposure to sustainability during childhood. Both are more involved with the social background aspect of our research question, rather than the educational background. In Figure 3 below, a rough correlation chart can be seen. This chart was created by the research team, meant to demonstrate the positive correlations between the variables, with a representation of the outliers as well. Using a thematic analysis, we found that higher levels of personal interest in the outdoors were seen to lead most students to higher levels of personal environmental responsibility. To represent this correlation, one student said that “thinking about places where [he’s] been happy in [his] life and almost all of it has been outdoors,” which led him to “want to be the impact that [he] wants to see” (Interviewee 1 2025). Another student who mentioned this said a similar thing: “Growing up we spent a lot of time outside and that helped me care about nature even before I really knew what conservation was” (Interviewee 2 2025). Both of these students exemplify the positive correlation between more exposure to nature and higher personal environmental responsibility.

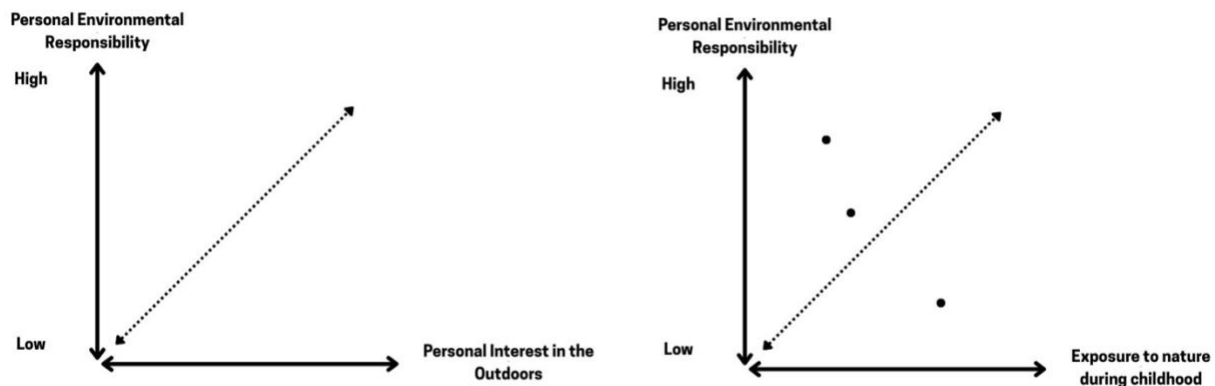


Figure 3: Demonstrating a positive correlation between the two key components found during the interview. The graph on the right demonstrates the outliers observed. Created by the research team using Canva for this project.

Through a thematic analysis, we also found that more exposure to sustainability during childhood led some students, but not all, to higher levels of personal environmental responsibility. More exposure to sustainability during childhood can include experiences with family, friends, personal practices, and many other groups. There were many examples of these, but also a few outliers. One student said that their biggest influence on environmental sustainability came from their scouting background, which was a nature-focused group she spent her childhood with (Interviewee 3 2025). This student represents a higher exposure to sustainability during childhood leading to higher levels of personal environmental responsibility. To look at the lower side of the correlation, a different student mentioned how her “parents don’t really care at all,” and then later said “as somebody wanting to go into sales ... corporate companies are not the best at doing good with the environment” (Interviewee 4 2025). This insinuates the idea that she will not be furthering sustainability goals in her work life. Comparing these two interviews is beneficial to view the difference between a student who was involved in a conservation group growing up, while the other student did not have much of an attachment to the environment throughout her childhood. One of the outliers we found said “growing up, my family was never super into environmental responsibility,” but then later says that “[she is] proud that [she is] becoming knowledgeable about ways [she] can help” (Interviewee 5 2025). This is an example of an outlier because she did not grow up in a highly environmentally conscious household but has developed higher levels of environmental responsibility throughout her life due to other correlations.

The overall results from our interviews suggest that there are positive correlations between personal environmental responsibility and personal interest in the outdoors, but also between personal environmental responsibility and connection to nature during childhood. Both of these components focus on the social background aspect, which can also be further tied into

the worldview framework. The worldview framework highlights personal values from a social sciences perspective, which highlights how personal values, social experiences, and identity shape attitudes.

## Conclusion

Our project explores how educational and social backgrounds shape personal environmental responsibility among CSU students. Through a mixed-method approach of surveys and interviews, we found that personal environmental values often emerge early in life but can also be reinforced later through STEM education or social contexts in college.

Although there were plenty of great takeaways from our group research, there were a few small errors and actions we would take if given the chance to do this project over again. One of the main issues can be seen in our interview selections, which can lead to possible information bias. Most of us selected interviewees from a small list of people who were open to us reaching out after taking the survey, and some of them never replied. A few members of the group ended up interviewing acquaintances who took the survey just to make sure we each interviewed two people. Given a larger pool of people and more time to focus on our interview phase of the research, we would have been able to select people from broader backgrounds without any possible social connections and conduct a more thorough analysis.

The qualitative data revealed a complex relationship between educational and social backgrounds with environmental responsibility. Students from a wide range of majors expressed similar environmental values when they had strong childhood connections to nature or regularly engaged in outdoor activities. These personal experiences often played a more influential role than academic discipline in shaping their environmental attitudes. These findings support the idea that environmental responsibility is not solely learned through formal education but is often deeply rooted in personal experiences and values developed over time. With that being said, it's crucial to recognize how impactful exposure to environmental topics can be. Our research matters because it shows that not all students are getting the same exposure to environmental topics. Understanding these differences can help CSU better promote sustainability in ways that connect with students from all backgrounds and majors.

## Lessons learned

This project was a learning curve, from patterns and observations made in the actual survey, to collaborating on a project and getting to know members of the group, there are plenty of takeaways from this project. In terms of the research itself, there were a lot of previously learned topics that were confirmed in our research. One of the biggest takeaways from our interviewing process was that college students are aware of environmental happenings and have at the very least a basic understanding of what is considered unsustainable. However, a majority of research participants stated that cost and convenience held them back from doing more to promote a sustainable lifestyle. Within the group, one of the key components for success was communication. This made each step of the process easier for all members because we knew exactly what we had to do, and it wasn't overwhelming. Towards the end of the project, it was important to hold each other accountable. Group projects can be hard, especially if every member of the group has plenty of other academic and personal commitments. Knowing that



everyone else is just as interested and committed to detail and hard work, made for smoother sailing. Regarding doing this project again, it would definitely be interesting to look further into our research question, include more research methods, and talk to a wider range of people. Overall, this project taught us many things, but it was an impactful introductory project for social science and sustainability research.

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