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The EcoRep Program at the University of South Carolina: How to Engage Students in On-Campus Environmental Activities

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Thesis Summary

This senior thesis focused on determining how much the undergraduate student population is aware about current environmental problems, their impression of them, and how they act accordingly. In addition, through completion of this thesis I hoped to understand what motivates students to participate in events on campus in order to more effectively increase awareness or sustainable behaviors. Specific interest was placed on the students at the University of South Carolina. I oriented this research for one environmental organization at the University of South Carolina in particular, known as EcoReps. EcoReps are peer leaders that strive to educate students about environmental issues, such as climate change, through hosting engaging events ("Who Are the EcoReps", 2012).

Attracting high and diverse attendance at events is difficult for many organizations on campus. This, along with limited funding, can hinder an organization's capacity to fulfill its mission. As an EcoRep member for three years, I strongly believe in the organization's mission and wanted to contribute in any way possible to its continuing success. Hence, the purpose of this project was formulated: through the use of a survey, I intended to collect data on the environmental awareness of the University of South Carolina's undergraduate student population to possibly increase the organization's effectiveness at completing its mission to educate students about climate change and the behaviors that can mitigate it. This would be made possible by knowing which sustainability issues the general population of students find most pressing and those they know the least about. I hope this research helps all environmental organizations at the University of South Carolina more successfully fulfill their role on campus.

Before evaluating the environmental needs specific to the University of South Carolina, it was necessary to understand the importance of the EcoReps mission: to educate others about the environment and the current problems relating to it. I conducted research regarding the global environmental crisis specifically through the lens of climate change. I chose this avenue strictly because there are many facets to this topic that can be explored and I believe most of the undergraduate student population would be familiar with this specific term. What I found provided substantial support that climate change is real and that the mission of the EcoReps is relevant. Thus, the driving force of this thesis was confirmed.

Since the survey was intended to target students and their personal opinions, I also sought out research that was directed at mitigating climate change by altering individual environmentally-conscious behaviors at the local level, rather than on global-scale sustainable corporate behaviors. This direction was selected because I discovered that while environmental regulations can have positive outcomes, their effects are often limited by the cooperation of the individuals they are imposed upon (Herrfährdt-Pahle et al., 2012). There was also a great deal of information about the interpretation of climate change information in the United States and the impact of anti-environmental behaviors that have become the standard in society illustrates how necessary early education is (Lorenzoni et al., 2006). Climate change affects all. It is universal; therefore, I feel strongly that all individuals be accurately informed and educated. The undergraduate student population at the University of South Carolina is diverse. Students are studying a myriad of majors with the hope of graduating with a degree illustrating expertise in a specific field; however, the information EcoReps are disseminating crosses all boundaries because it impacts daily lifestyle choices.

In an attempt to further tailor this research to the goal of this thesis, I then evaluated the presence of sustainability in higher education within the United States. College campuses are popular areas for sustainable development and therefore, should be a great resource to organizations such as EcoReps in addressing climate change (Williams, 2015). In addition, college campuses are already appropriate backdrops for progressive movements of any kind ("University Leaders", 2008). I also researched the breadth of EcoRep organizations nationwide. EcoReps can be found on many college campuses today and its structure is varied from school to school. Noting the differences in how universities approach environmental education through its EcoRep organization was useful and adopting aspects of successful programs that align with the culture of sustainability at the University of South Carolina was considered.

The electronic survey I developed was distributed across the University of South Carolina's campus and was intended to target the general undergraduate population of students. The structure and content of the survey followed the guidelines of qualifying Institutional Review Board exempt surveys. Hopefully, the EcoRep organization finds the information from this thesis and survey useful by increasing its on-campus presence through higher and more diverse attendance at events that are targeted more directly to the needs of this particular student population.

Introduction

Climate change is frequently cited in the media, possibly to the point of overexposure. Hollywood capitalizes on it by regularly releasing anthropogenic climate change-induced post-apocalypse films. Politicians compete for the spotlight over it - arguing about who is doing more to fight it or even who is doing more to protect the industries being attacked because of their connection to the "made-up" threat. Companies promote their green initiatives to mitigate climate change, but still express resistance when demanded transparency of the rest of their operation. Often heard on the weather channel is that dreaded hurricanes are more frequent and stronger due to climate change. The overarching message in the United States seems to be that climate change is to blame for everything, but nothing serious needs to be done about it. Overall, getting the public to accept climate change is a problem has not presented much of a challenge; however, getting the public to accept it needs to be prevented certainly has. This problem stems from both a lack of and ineffective public science education and effective media miseducation. The public has not been prepared to handle the onslaught of contradictory information or think critically about it (Cooper, 2011). Few people would feel knowledgeable or comfortable enough to openly discuss the science of climate change, what can and is being done about it, and how they can take part. Unfortunately, even if that were untrue, there still would not be many accessible opportunities for this type of discussion.

Researching the shocking information regarding global climate change illuminated the pressing need for more environmental education. It became clear that no effort is too small when

it comes to addressing this issue. University of South Carolina students are not immune to the effects of climate change, nor are they irrelevant to its mitigation. With an undergraduate population totaling near 25,000 students, effective climate change education can have a monumental impact. Luckily, there are several organizations at the university that are doing their part. One example would be the EcoRep organization. At the University of South Carolina EcoReps work primarily in the residence halls, but also collaborate with Sustainable Carolina, hall governments, student government and other campus and community organizations to increase their impact. In addition, the University of South Carolina EcoReps have hosted the annual Southeastern EcoRep Conference every spring semester for the past five years ("Who Are the EcoReps", 2012). This conference brings together EcoReps from across the southeast to discuss the similarities and differences of the successes achieved and the challenges confronted in making college campuses more sustainable. I have contributed a considerable amount of my time to this organization over the course of my college career, joining as a member my sophomore year for the Honors residence hall, taking a leadership role my junior year as Social and Conference Chair, and moving on to EcoExec my senior year. I have witnessed many of the great things the EcoRep organization has done for the University of South Carolina and with this project, hopefully I can help it achieve even more success in the future.

Thus, the direction of this senior thesis was established. Ultimately, I desired to evaluate the effectiveness of the University of South Carolina EcoRep organization utilizing the data gathered from a survey I developed. The IRB-exempt survey was designed with three topics in mind: 1) what are the current sustainable behaviors and habits of the undergraduate student population; 2) what motivates undergraduate students to attend on-campus events; and 3) could demographic information be helpful in tailoring climate change education? I achieved this

sample by contacting a variety of clubs, classes, organizations and departments that were willing to voluntarily distribute the survey. The following paper will submit a justification for completing this project by investigating the scientific-facts surrounding climate change and how mitigation would best be approached. Secondly, it will detail how sustainability is incorporated on college campuses across the country, and here at the University of South Carolina. Finally, some suggestions for the EcoRep organization are presented using the survey results as a guide.

It is the overarching goal of this thesis that the information gathered will ultimately impact the student body; therefore, it is appropriate to justify the content of the product with research supporting the efficacy of its design. Using the information in this thesis, the EcoRep organization might be able to shift the culture of sustainability on the University of South Carolina's campus to one that is more accepting and proactive. EcoReps will be able to provide students with educational materials about the environmental issues they are most interested in and in a format they find most engaging. It is the hope of this project that the student population will begin to guide the direction of sustainable progress at the University of South Carolina.

The Environmental Crisis: Why It Is a Concern

There is a great deal of publicized debate over the concept of global warming, now more commonly referred to as climate change. According to the fourth assessment report published by the Intergovernmental Panel on Climate Change, climate change is the "change in the state of climate that can be identified by alterations in the mean or variability of the properties that compose climate over comparable time periods through the use of statistical tests" (IPCC, 2007). Some definitions explicitly state that climate change is a result of anthropogenic forces, while other definitions acknowledge other natural forces. The term global warming is not incorrect; however, climate change is a more descriptive term.

The majority of speculation surrounding the legitimacy of climate change is whether or not it is caused by anthropogenic forces, how much of the scientific population supports this claim and if it even needs to be addressed. Numerous studies, surveys and reviews have concluded that 97% of climate scientists support the theory of human-caused climate change (Van der Linden et al., 2015). However, it's been found that only 12% of Americans think that scientific agreement on the topic is at least 90%. This is largely a result of media campaigns set out to undermine the public's understanding and interpretation of scientific information (Van der Linden et al., 2015). In the discussion of climate change, the media have interfered in the scientific communication process and have caused a great deal of miseducation, particularly surrounding the final speculation: is addressing climate change necessary? As a result, the public are often responsible for seeking out climate change information independently. Fortunately,

there is a vast network of reliable information on the subject from primary sources if one knows where to look.

The Intergovernmental Panel on Climate Change (IPCC) is the premier scientific organization studying climate change. The IPCC was founded in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP). Its goal was to provide policymakers with information relating to climate change as it applies to four main topics: scientific observations of climate change, its impact, future risks, and possibilities for adaptation and mitigation ("IPCC Factsheet", 2013). The IPCC published its fifth and most recent assessment report in November of 2014. It is a lengthy scientific document, but a summary is produced for policymakers to bridge the gap between science and the government. In this way, the IPCC welcomes the public into the climate conversation.

The statistical findings in the fifth assessment report from the IPCC that support the current state of anthropogenic climate change on the planet are shocking. To start, on average, the atmosphere and the ocean combined have warmed 0.85°C over the past 132 years ("Climate Change", 2014). This warming is extremely likely to have been caused by increasing greenhouse gas emissions from industrial, economic and population growth. Even with the most stringent mitigation controls, global mean surface temperatures are likely to increase by 0.3°C to 1.7°C by the end of the 21st century. Under the same strict conditions and timescale, global glacier volume is projected to decrease between 15% and 55% ("Climate Change", 2014). Between 1970 and 2012, the annual Arctic sea-ice extent decreased at a rate of 3.4% to 4.1% per decade. Finally, if no mitigation efforts were implemented, the Arctic Ocean will be virtually ice-free in the summer by mid-century and global mean sea level has already risen by 0.19 meters in the past 111 years, an increase greater than the two previous millennia ("Climate Change", 2014).

These values may seem negligible, but simulation models have been run to estimate the configuration of the planet according to the projected temperature increases and glacial melting. For example, in a study comparing the locations of biomes on Earth during the relatively warm, mid-Holocene period to their locations today, a significant shift in biomes was revealed. For example, in the mid-Holocene period, the tundra biome was at least 200 km north of its present location in Siberia. What is most concerning is that the climate anomalies between the mid-Holocene period and present day are smaller than the climate anomalies between those that have been projected into the future and present day (Benito-Garzón et al., 2014). This means biome movement in the future as a result of climate change will drastically alter the planet's configuration to an extent that has not occurred in all of recorded history and will likely render it unlivable for human society. Regarding glacial melt and sea level rise, rates are likely to increase into the 21st century. The sea level rise between 2081 and 2100 is projected to be 0.26 m to 0.55 m ("Climate Change", 2014). This rate is much greater than was measured for the past century. If projections are correct and sea level rises 1 meter by 2100, coastal cities such as Miami, New Orleans, Tampa and Virginia Beach could lose up to 10% of their land area ("Rising seas", 2011). The examples create visuals that supplement the statistics presented in the IPCC assessment report in order to make them more memorable and convey the severity of the impact of climate change. But exactly how will moving biomes and lost coastline affect human systems?

First, terrestrial, freshwater and marine species have already begun shifting their geographic ranges, seasonal activities and migration patterns in response to climate change and if mitigation efforts are not taken, they will no longer be able to adapt quickly enough ("Climate Change", 2014). This means there will be a dislocation of many species and combined with temperature increases that can hurt crop yields, humanity will suffer from food insecurity.

Second, climate change will intensify disputes over water rights because renewable surface water and groundwater resources are projected to shrink as a result of salt-water intrusion caused by the melting ice caps (“Climate Change”, 2014). Third, economic instability is highly likely due to constraints on human activity as a result of higher temperatures increasing the stress on pre-existing chronic and acute illnesses. Finally, these complications will affect disadvantaged communities the most, leading to mass migrations of people seeking environmental refuge from lack of food and water and more frequent and dangerous natural disasters (“Climate Change”, 2014). The United Nations projected that by 2020, there will be 50 million environmental refuges seeking safety (Zeitvogel, 2011). Essentially, if climate change is not addressed, efforts to reduce poverty and increase quality of life will be ineffective - progress will be stifled and this is a major concern. Therefore, no matter the cause of worry, be it the loss of a beautifully diverse and healthy ecosystem or the loss of human productivity and life, climate change is an important issue that demands immediate attention and action.

Even with complete cessation of anthropogenic causes of climate change, these increases are still projected to occur for decades to centuries to come (“Climate Change”, 2014). Economic, political, social and technological actions are considered most effective at the national level; however, the IPCC addresses the major limitations of possible adaptation and mitigation efforts to be lifestyle, behavior and culture (“Climate Change”, 2014). National action is only effective when the proposed policies reflect the entire nation’s vision and priorities, which suggests that education imbedded into engaging initiatives at the local level must take place in order to change the current environmental culture of a country to one that supports national sustainability policies. The necessity of a cultural overhaul to mitigate climate change emphasizes that there is indeed an environmental crisis that should be raising great concern.

The Environmental Crisis: How to Address It

In 2012, Herrfährdt-Pahle and Pahl-Wostl conducted research relating to the interaction between culture and sustainability by evaluating the effects of cultural stagnancy versus fluidity on the success of a sustainable project. They did so by comparing the implementation of the European Union-funded NeWater Project, an initiative focused on finding new methods of water management, in South Africa and Uzbekistan. The study evaluated the effectiveness of policy implementation in each country as it pertained to what they call "formal institutions" (laws) and "informal institutions" (moral values). It was found that regardless of the policy approach, be it immediate or gradual implementation of the project, the defining factor for success was the fluidity of customs, traditions and cultural values of the governed people throughout the process, (i.e., informal institutions). In both cases the laws were altered. The common denominator between the two case studies was the rigidity of the public's values and as a result, neither program was successful (Herrfährdt-Pahle & Pahl-Wostl, 2012). This finding speaks volumes about how the observation of a community's lifestyle and behavior and their incorporation in policy can increase policy efficacy. Environmental policy should be addressed in such a way.

If the lifestyle and behavior of a common people must be one that is more climate-conscious in order to implement successful policy solutions that mitigate climate change, it is essential to first understand their current lifestyle and behavior. This begs the question, what is the United States' stance on climate change? According to the results of a survey by Lorenzoni and Pidgeon in 2006, while most individuals that make up the American public do perceive

climate change as harmful, they ranked climate change ninth in terms of severity out of a list of ten environmental issues. This is primarily because Americans do not perceive climate change as a personal threat; however, they recognize it will be a major issue affecting developing countries in the near future. According to survey responses, Americans also prioritize luxuries of the first-world lifestyle over climate change for social reasons. The only climate change-related threat to Americans is a loss of their current lifestyle (Lorenzoni & Pidgeon, 2006). This is not a particularly motivating threat and is one reason why there is such a great lack in environmental action.

American corporations have taken advantage of the market surrounding environmental awareness by incorporating forms of environmental activism in the consumption of their product. Often, this becomes an issue of "greenwashing" – when companies advertise that corporate practices are more sustainable than they are in reality. Other strategies of green advertising create a sense of political resignation. When corporations overshadow negative terms with positive terms they form "corporate oxymorons," an example being "clean coal." They make individuals feel defeated by major corporations and come to the conclusion that the environmental degradation they create is inevitable (Benson & Kirsch, 2010). Efforts have been taken in the corporate world to counteract these transgressions of greenwashing, like L.E.E.D. certifications. Americans desperately need an environmental education revitalization to overcome this deeply engrained culture of consumerism.

An article published in by *BioScience* in 2011, identified several problems that led to a gap between public knowledge and policy action. The author, Caren B. Cooper, first states that traditional informal science education is inadequate, because it utilizes a "deficit approach." This means that scientists are attempting to "fill" the public brain with information in addition to

"unlearning" the misinformation presented by the media. She also found that public science education typically aims at disseminating basic scientific knowledge, not critical thinking skills. As a result, it leaves out possibly enticing details, such as its relevance to social issues. Cooper's second problem is the "intentional use of mass media by climate change deniers." The public is overall receptive to science. Unfortunately, this can backfire because the public may value all scientific viewpoints equally, leading to skepticism and uncertainty. The media steps in and provides the stability the public craves by supporting climate change deniers. Finally, Cooper addresses the "unintentional influence of the media." The purpose of media is frequently entertainment or persuasion, not education, and the public comes into contact with it much more often than science educators. Subsequently, media amplifies the natural human desire to make decisions quickly. Cooper suggests that the focus of educators not be adhering to the public understanding of science (PUS) model, but following the new public engagement in science (PED) model. This model is built upon "events, activities, interactions, or experiences that allow for two-way communications and deliberation [because it] … enhances knowledge while getting people involved and invested in the issue" (Cooper, 2011).

Clearly, American perceptions about climate change would not align with a national sustainability policy and this is a huge area of concern. Americans do recognize; however, that voluntary action is necessary to mitigate climate change. The tendency for climate change mitigation to be a local, grassroots movement arose from an opinion such as this because it makes the environmental benefits of lifestyle and behavior change tangible (Lorenzoni & Pidgeon, 2006). The survey responses from this study illuminate that the contradiction between the consensus among Americans to take responsibility for climate change and their wasteful

lifestyle of consumerism stems from miseducation by media and ineffective educational community engagement about climate change.

Miseducation by the media and blocked communication between the public and scientists have affected the culture of environmental concern in the United States. The data supports that climate change is currently threatening plant, animal, and human life globally to an unknown, yet catastrophic degree. Research also confirms that an individuals' perception of climate change can often trump national policy in making progress against planetary harm and that in America, the current public opinion will not lead to positive change. Therefore, education about climate change and sustainable behaviors through local level engagement is key to necessary environmental progress. One community found to be particularly well-suited for this is that of higher education institutions.

Sustainability in Higher Education

An article on sustainable campus buildings published in *University Business*, the most widely read publication on higher education in America, states that environmentally-friendly facilities on college campuses is becoming the norm. Monika Urbanski, Sustainability Tracking, Assessment and Rating System (STARS) analyst with the Association for the Advancement of Sustainability in Higher Education (AASHE), says “sustainability is increasingly becoming the standard for construction and master planning in higher ed[ucation]” (Williams, 2015). The popularity of eco-college development is due to the variety of facilities necessary for a campus to function, such as cafeterias, residence halls, libraries, gyms, classroom and research buildings, and auditoriums. The expense of constructing and maintaining so many buildings practically necessitates the incorporation of environmental designs that cut costs into the construction process.

In addition, sustainable buildings can contribute to students’ education (Williams, 2015). First, eco-facilities have been shown to increase the productivity of their inhabitants as a result of more natural lighting, efficient ventilation and the use of fewer volatile organic compounds. Second, students can be included in the sustainable design process, creating a unique educational opportunity supplementary to those engineered into the sustainable design. For example, a green roof can be utilized by a geology professor to teach about the storm water management services

it provides the university and the plants on the green roof can be utilized in a biology lecture (Williams, 2015). In addition, I was able to take part in a student panel with the project designers of the new Darla Moore Business School to provide feedback about the design and its functionality for the modern college student. The potential monetary, environmental, and health benefits of eco-construction listed above are only a handful of those addressed by green building certifications.

The University of South Carolina has incorporated environmental sustainability within its various institutions, green buildings being a prominent one. The 2010 University of South Carolina: Vision for a Sustainable Future 2010 Master Plan includes goals for environmental sustainability that are five-fold, covering natural landscapes, water, energy, materials and waste, and transportation ("University", 2011). Objectives under these goals touch on topics such as a dark sky initiative, storm water management, energy-use reduction, use of local food, and reduction of vehicle miles travelled. Overall, the environmental goals in this master plan seek to achieve an environmentally-sensitive campus ("University", 2011). The master plan, however, does not address their implementation except for that of transportation. Regarding transportation, the university intends to remove excess surface parking, provide more efficient bus services, and encourage pedestrian activity. Highlighted is the redevelopment of the Rocky Branch Creek to mitigate flooding that impacts transportation in addition to university housing and athletic recreation by removing dilapidated buildings from the university land residing in its flood plain ("University", 2011). All this has been considered to increase the connectivity of campus to its academic buildings and to various parts of the city in a sustainable manner.

Since this master plan was written, several environmental projects have been completed at the University of South Carolina. A recent example would be the new Darla Moore School of

Business that was awarded L.E.E.D. certification of gold (platinum certification pending). The building's construction achieved many of the objectives outlined in the master plan, like impervious surfaces, sustainable landscaping, and reducing the waste stream. The University of South Carolina has also implemented educational sustainable initiatives: *No Impact Man*, was assigned for the freshman reading experience in 2011, a green living and learning community was established at the West Quad residence hall, and a Student Sustainability Fund is in the process for approval. In addition, the University of South Carolina has affirmed its commitment to sustainability by joining AASHE and the American College and University Presidents Climate Commitment (ACUPCC). These endeavors are great steps along the way to becoming a truly environmentally-sensitive university, but do these initiatives alone create environmentally-sensitive individuals?

Institutions of higher education are seen as major players in the development of a student's identity, values, and sense of civic responsibility (Messineo, 2012). With the growing threat of climate change, students should be introduced to the concept of sustainability while pursuing a higher education. Colleges and universities are ideal settings for this because of their educational purpose as well as their inherent ties to sustainability in that not only do they use resources and produce waste, they are also major hubs of innovation in sustainable fields through their research (Lang, 2015). In 1990, the president of Tufts University recognized this and created a document known as the Talloires Declaration that outlined how higher education institutions can help create a more sustainable future:

> Universities educate most of the people who develop and manage society's institutions. For this reason, universities bear profound responsibilities to increase the awareness, knowledge,

technologies, and tools to create an environmentally sustainable future ("University Leaders", 2008).

However, the green features and opportunities a university can provide its students, such as buildings, courses and organizations, are not enough to change a student.

A study tested the correlation between universities' environmental performance and their sustainable initiatives (Lang, 2015). Environmental performance was measured by evaluating a university's energy use intensity, greenhouse gas emission intensity, water use intensity, waste-creation intensity, and waste-diversion rate. The sustainable initiatives were measured by evaluating a university's campus characteristics, best practices and sustainability-related activities. Of most importance are the last two sustainable initiative measures. Evaluated under best practices were the presence of features, such as LED lighting, composting programs, and waterless urinals, in conjunction with any climate-related action plan at the university. Sustainability-related activities were identified as curriculum, extracurricular opportunities, and research. The study found that no correlation existed between a university's best practices and its environmental performance. In addition, no correlation was found between environmental performance and sustainability-related activities on campus (Lang, 2015). As an example, these findings demonstrate that placing recycling bins around campuses and disseminating knowledge about recycling does not directly lead to increased recycling rates. So if the built environment and campus activities aren't fostering sustainability-oriented students, what does?

While the aspects of sustainability are conveyed to students as knowledge, skills and competencies, the practice of sustainability is "underpinned by affective attributes such as values, attitudes, and dispositions" (Shepard et al., 2015). This reiterates the theme that informal institutions, or lifestyle choices and behavior, influence the efficacy of sustainability policies.

Education is first and foremost the most effective method by which to modify lifestyle choices and behavior. However, the quote above illuminates a new facet to this argument: not any style of education will suffice. This study argues that affective learning, learning that incorporates values, attitudes and behaviors, should be combined with the traditional cognitive learning of higher education institutions (Shepard et al., 2015). Doing so encompasses "what students know, what skills they have to put this knowledge to use, and what they choose to do with the knowledge and skills at their disposal" (Shepard et al., 2015). The final component is critical to fostering environmentally-sensitive individuals.

All universities can make this possible on their campus. The importance of thorough sustainability plan development in this process was heavily stressed, as was defining measurability within said plan (Swearingen White, 2014). An evaluation of campus sustainability plans showed that most institutions focused on campus operations because of its cost benefits, moderately on the incorporation of sustainability into academics, and neglected social-environmental issues. Many sustainability plans also failed to address budgeting and finances. This becomes an issue when the implementation process begins and it underscores how vague and unsolidified many university plans are surrounding its environmental initiatives. Sustainability plans need to be specific and approach sustainability environmentally, economically and with equity. In addition, plan crafters need to provide their own criteria for measuring success. This strengthens understanding of the outlined goals and objectives. Finally, greater participation in plan formulation leads to more successful implementation (Swearingen White, 2014).

The variety of forms a sustainability plan can take is infinite. However, a successful approach would suggest targeting students the instant they step foot on campus freshman year

(Messineo, 2012). Presenting a culture of environmental-sensitivity to new students is key to creating long-term lifestyle and behavioral changes. An article promoting first-year activities to engage students in sustainability describes a "Green Continuum" within residence halls, classrooms, and community essential to their success. For universities just now introducing sustainability practices the far left of the continuum is the place to start, where "helpful tips" are spread, like how and what to recycle (Messineo, 2012). Next on the continuum is "opportunities for practice." This phase expands on the previous one by providing recycling bins or hosting recycling competitions. "Content and offerings" is third phase on the continuum and is defined by a cultural norm of sustainability, only surpassed by "paradigmatic emphasis," the complete commitment to sustainability (Messineo, 2012).

Acting as "living laboratories" or "city microcosms," universities provide enriching opportunities in which students can learn about and practice participating in sustainability in order to become more informed global citizens. While the most visible sustainability initiative at universities occurs in campus operations, the gradual adjustment of a student's environmental consciousness is a result of an affective and cognitive geared academic system, ideally detailed in a comprehensive sustainability plan so that students can be immersed in a community whose culture embodies sustainability as soon as they arrive.

EcoReps: Nationwide and at the University of South Carolina

For the past five years, the South Carolina EcoReps have hosted the annual Southeastern EcoRep Conference. This provides an opportunity for students across the southeast to exchange the ideas and experiences they have had while promoting sustainability on their campuses. A lot of networking occurs and over twenty presentations are given at several breakout sessions during the day, with one being given by a keynote speaker that all the participants attend together. Often, new EcoReps are surprised to learn that not all EcoRep programs operate the same way across universities. These numerous alternative structures offer a lot of opportunities for possible improvement. This section summarizes the information I know about the EcoRep program from first-hand experience.

A majority of the differences between programs stems from the office it is funded by. At the University of South Caroline the EcoReps are funded by Housing, while at other universities the program goes through the Office of Sustainability. Some programs are filled by voluntary positions only. These programs tend to be much larger due to the lack of financial constraints. Subsequently, those programs that are not funded by Housing and as a result are not confined to working in the residence halls do most of their programming for the campus as a whole.

Another major distinction between organizations is if the EcoRep members plan programming based on education or initiatives. Many programs focus on hosting interactive events that educate their peers about sustainability issues whether it be in the residence hall or

campus-wide. Other universities focus on campus culture change through the forced participation of the student population in sustainable behavior by working with the university to implement initiatives, such as campus-wide plastic bag bans or composting services. This type of programming sounds to be dramatic and impressive, but does demand a sufficient general environmental education of the student population in order for the initiatives to be effective. It is great for a university to be sustainable, but if that university is not transferring the knowledge of how it is being sustainable and why it is important, then it is not completely filling its purpose as an institution of higher learning.

At the University of South Carolina the EcoRep organization is funded by Housing. For this reason, the majority of members are on-campus residents and their work occurs primarily in the residence halls. There are a few off-campus EcoReps to assist in campus-wide efforts and they are often returning members serving on the leadership team. The compensation from Housing is a stipend of about $100 distributed each semester. In order to receive the stipend a member must host a minimum number of events in their residence hall, accumulate only two absences from weekly meetings, attend the Southeastern EcoRep Conference, and volunteer four hours total for campus-wide EcoRep programming. The events that the EcoReps of the University of South Carolina must complete are typically geared toward educating the student population. Popular events this semester have promoted social justice movements, such as the "Bring Your Own Mug" fair trade coffee event. For this event, students that attend with a mug are able to receive free fair trade coffee. The free product attracts students and provides a positive environment for the EcoRep to interact one-on-one with their peers about an issue. EcoReps have done recycling competitions in their residence halls as well, and several have gone around their residence halls asking for plastic bags in order to properly recycle them. In all of

these scenarios, an EcoRep is engaging personally with a student and sharing an important message. It might not require much effort from the student, but each event described leaves an impact. They either have their first sip of fair trade coffee, are motivated to recycle for a prize, or realize just how many plastic bags they had when they go searching through their rooms and learn that there is a way to recycle them.

Additionally, the EcoReps are a very visible and involved organization at the University of South Carolina through the collaboration with other sustainable programs, such as Sustainable Carolina. For example, each year the EcoRep submits a design to the Reclaimed Runway event hosted by Sustainable Carolina and the USC Fashion Board. This year, the EcoReps participated for the first time in Tunnel of Awareness, creating an interactive room in order to share a message about trash culture that got great feedback. The EcoReps also have several liaisons involved in many traditionally non-sustainable organizations, such as the Residential Housing Association, Student Government, Hall Government and Dining Board. One such liaison is also on the leadership team as the Community Outreach Chair and has done great work connecting the EcoReps with hard-to-reach student populations.

A session at this year's Southeastern EcoRep Conference was dedicated to implementing sustainable initiatives within the administration and reflected a lot of the great work the USC EcoReps are doing by integrating themselves in many facets of camps life. The presenter Namita Koppa explained that often sustainable programs need to be researched, developed, pilot tested and then sent off for higher-up approval. Showing that they are effective, working, and ahead of the curve makes them more attractive to officials for support. When officials see that employees are dedicated to a cause regardless of it being mandated by the institution, they realize it is a worthwhile endeavor. By being members of outside organizations, the EcoReps are showing to

the administration of this university that sustainable change is possible and that students are willing to see it through regardless. At this point, a university would be remiss for not acknowledging the desires of its constituents.

The University of South Carolina EcoReps are all great, dedicated students. As a member, I have been a part of three distinct EcoRep groups and all have done tremendous work. I have learned about many new programs, laws, and technologies in meetings and have realized how differently others interpret sustainability. Completion of this thesis has also allowed me to understand how some of the undergraduate student population at the University of South Carolina see sustainability as well.

Survey Analysis

Attached in the appendix is a copy of the survey and a spreadsheet summarizing the results. A total of 115 current undergraduate students were surveyed. Disclaimer: a truly representative sample could not be reached, but useful information was gathered nonetheless. Also, self-reporting surveys, such as this one, tend to have skewed results due to over- or under-reporting according to social norms.

Roughly 50% of the survey respondents were in the College of Arts and Sciences. The School of Business represented 23% of the total students surveyed, coming in as the second most represented college. Seniors were heavily represented at 40%. Freshmen, sophomores and juniors were approximately 20%, 16% and 18%, respectively. Exactly half of the respondents self-reported themselves as being moderately environmentally conscious (the equivalent to a 3 on scale from 1 to 5, with 1 being not environmentally conscious). Nearly 40% of students rated themselves as a 4 or 5 and 11% rated themselves as either a 2 or 1.

The survey results showed that many students are relatively competent at adhering to popular sustainable behaviors, such as recycling a variety of products, carpooling, walking, and regulating energy use. The behavior reported the most as being done “always” (options being “never,” “rarely,” “sometimes,” “often,” “always,” and “I do not know what this is”) was turning off the faucet while brushing teeth. According to the results, 87% of students recycle paper

sometimes, often, or always and those responses were chosen by 92% of the respondents regarding aluminum and plastic recycling.

The behaviors that were accomplished the least were timing showers, composting, restricting meat consumption, and using cloth shopping bags. Composting was understandably the behavior with the majority of respondents reporting to "never" completing it (60%). I was genuinely surprised, however, to see that the purchasing of local and organic food both received 50% reporting of "sometimes." In addition, 70% of students "rarely" or "never" restrict their meat consumption.

What I find most telling about these results is that 60% of students say that they have not taken a sustainability related course in their time at the University of South Carolina. Environmentalism has so many facets to it, that it has been neglected so glaringly is pretty astonishing to me. As stated above, most of these behaviors are ones that have been engrained since many of the respondents were a very young age – 80% of respondents stated these behaviors were learned from their parents. Clearly, cultural change must start early. However, what must be asked then is, how is the university helping creating environmentally conscious citizens? As addressed above, just because a university has certified "green" buildings does not mean its students understand their importance or how they contribute to mitigating climate change. It appears that the University of South Carolina is neglecting to move from the second phase of the "Green Continuum" that is operational practices and into the cultural shift and commitment to sustainability.

The importance of a cultural shift is highlighted by more results from the survey. Inconvenience was listed as the top reason for low participation in a sustainable behavior with 49% of the vote; however, 96.3% of those surveyed stated they do believe in climate change.

This is common in first world countries where the threats of climate change are not felt. Unfortunately, when asked if taking this survey would increase future sustainable behavior half responded “no.” This does mean that the survey possibly increased the performance of sustainable behaviors of half of those that participated, but many of the behaviors questioned about are relatively basic steps at reducing one’s carbon footprint. Clearly, a cultural shift is necessary on this campus.

The top reasons students attend events on-campus, according to this survey, are free food and whether or not their friends are attending. These two options came in at 78% and 77%, respectively. The third most picked choice was the actual subject of the event at 69%. Regarding opportunities to become involved in sustainability-oriented events, 50% of respondents did know about a sustainable organization on campus, but 67% were not familiar with the EcoReps. Only 10% of those living on-campus knew who their EcoRep was. The biggest barrier between EcoReps and the student population seems to be communication. The most popular form of event communication selected was email, but lack of awareness about events was by far the top reason for low attendance at 61%. Therefore, one can conclude advertising is the main reason 73% of survey respondents did not attend an EcoRep-sponsored event. On a positive note, 71% said they would be interested in attending an event after taking the survey, but the majority did not want to be added to a listserv.

Comparing the environmental awareness between freshmen and seniors did provide some enlightening information. The percentage of seniors was higher than the percentage of freshman in these categories: having taken a sustainability course (46%; 31%), knowing environmental organizations on campus (46%; 40%), having attended a sustainability event (28%; 23%), and believing in climate change (98%; 95%). However, I would argue that the differences are not

suggestive of a great deal of cultural change after spending four years at the university. The closeness of these numbers could be a result of improved sustainability education provided to incoming freshmen.

Higher percentages of females than males were reported in the following categories: increasing sustainable behaviors in the future (56%; 40%), knowing about environmental organizations on campus (52%; 41%), having attended a sustainability event (27%; 25%), being open to attending a sustainability event, and believing in climate change (97%; 95%). A lower percentage of females than males had taken a course incorporating sustainability (37%; 44%).

Some of the lowest responses overall came from students on track to graduate from the School of Business. Only 34% had taken a course relating to sustainability, 70% reported not knowing any environmental organizations on campus, 87% had not attended a sustainability event, only 69% said they would attend a sustainability event after taking the survey, and 13% did not believe in climate change. Thus far, they were the only group studied to total less than 90% in the category believe in climate change.

When it came down to parsing through the demographic information, not a lot was revealed. I initially thought that higher education and income levels would suggest more knowledge surrounding sustainability and climate change; however, 95% of students whose parents had a bachelor's degree or higher believed in climate change compared to 100% of students whose parents had a high school or community/technical college education. The percentage of parents who believed in climate change was essentially the same: 82% and 81%, respectively. This may be a result of disadvantaged populations experiencing the effects of climate change more; although, this conclusion cannot be extrapolated from the data. Higher percentages for climate change affirmers did hold true in the West – albeit, by a small margin.

Students from the Southwest, West, and North Pacific reported believing in climate change at 100% and their parents came in the highest as well at 87%. Students from the Northeast and Southeast came in a 96% believing in climate change. However, parents from the Southeast were reported to believe in climate change at 81%. This is 3% higher than parents from the Northeast.

By having a better understanding of the average student's thought process surrounding environmentalism and sustainability, the EcoReps may be able to more effectively shape and target their message.

Application

Not surprisingly, most students ranked themselves (and their parents) as moderately sustainable; however, the accuracy of those rankings depends a great deal on each individual's interpretation of not sustainable versus very sustainable. Many of the highly reported behaviors are reflective of the average college students' lifestyle. For example, most college students will probably turn off their lights or unplug an appliance when not in-use because they are responsible for paying their electric bill. Along the same lines, carpooling is popular to and from campus to cut down on gas costs and once on-campus or in the downtown area it is almost easier to bike or walk most distances. Not only are these behaviors fitting in a college student's lifestyle, but these are also behaviors many were introduced to during their youth or by their parents. For example, carpooling to after-school activities was common in childhood, parents were role models in turning off the faucet while brushing their teeth, and many primary schools posted flyers with recycling characters.

It is reassuring to see how successful recycling campaigns have been, although the results could still be better. Aluminum and plastic are recycled at higher rates than paper. This may be due to the ease with which those products can be recycled. There are many receptacles for this purpose and most bottles are probably purchased and disposed of on-campus where recycling is available. Also, students might not have recycling at their place of residence where they are disposing of their paper more often. In addition, there are many different types of paper products, such as office paper, newspaper, magazine paper, folders, paperboard, and non-waxed food packaging to name a few, which can make recycling confusing. While there are also many types

of plastics, most students when asked this question most likely ranked themselves based on how often they recycle water or soda bottles and did not think about all the other plastic products they regularly interact with.

A possible culprit for this slightly inaccurate reporting is multi-stream recycling. Most multi-stream recycling containers have lids with specific shape openings, such as a circle to fit a bottle or can or a slit to fit paper. This often limits what can be placed into the containers and can lead the public to believe that the items that fit the containers are the only recyclable items. While multi-stream recycling has its benefits over single-stream by cutting down residual waste and sorting costs, it lowers overall recycling rates. The USC EcoRep program might consider researching and proposing a receptacle that best suits the university's infrastructure and leads to the highest waste diversion rate possible.

Another possibility moving forward might be re-igniting the promotion of reusable water bottles or containers of any kind. These products have recently become a popular giveaway, but seem to be neglected possibly as a result of the different liquids consumed over the course of a day. Nearly all students have a water bottle for the gym, but that is not preventing them from continuing to purchase soft drinks. Collaborating with vendors might make this transition easier. Letting customers know that they can have their thermos filled with coffee, or bottle filled at a soda fountain might decrease the number of disposable containers thrown away. A health approach might also prove effective. This could take shape in encouraging students to choose water and tea over sodas, juices and coffee so fewer containers are needed.

The EcoRep program could also take up the initiative to rebrand the three R's (reduce, reuse, recycle) by emphasizing their prioritization. Along the lines of reducing, the use of cloth shopping bags was reported much less than I anticipated. Outside of plastic bag bans or taxes

(which could concurrently be incrementally sought after on-campus), solving this issue might simply require more education. EcoReps can suggest students acquire several cloth bags and place them where they are least likely to be forgotten, such as the trunk of their car, the bottom of their backpack, or the inside of their front doorknob. Recycling is last on the list because it is a last resort; the three options are not equally sustainable. This is supported by the disproportionately low reporting of purchasing recycled and used materials. If products are being recycled, but no one is purchasing the second-hand products, what purpose does recycling serve? This could also simultaneously be approached through educational activities for students and an institutional-level project, such as getting the university to promise to buy a certain percentage of recycled products.

The least reported sustainable behaviors centered mainly on water-use and agriculture. Meat restriction seemed to be interpreted as an "either/or" question. The vegetarian/vegan respondents could choose "always" and the remaining omnivores, "never." It appears that more should be done to educate students about harmful and unsustainable livestock practices, stressing that caring about such an issue does not require being vegetarian or vegan. Approaching the topic from more directions than animal rights, like the meat industry's water-intensity, might make non-vegetarian students more receptive to the idea of monitoring their meat intake. An interactive guessing game could easily be developed through this avenue.

Composting was probably one of the most challenging sustainable behaviors questioned about in the survey, because there are very few ways to accomplish it here in Columbia. Increasing this behavior would ultimately require a city- or campus-wide operation. Since the university is considering purchasing an in-vessel rotary drum composting machine or signing on with a compost pick-up service, the EcoRep program should start an intense campaign to educate

students about how to properly compost. This will prepare students for when the operation is implemented, helping it run smoothly, and could encourage university officials to move forward with the purchase.

Events for these least reported sustainable behaviors could also follow a behavior change format. EcoReps could choose a single topic to host events on for a semester and see if the behavior has increased overtime. For example, if a student wanted kids to restrict their meat consumption one event could bring in a farmer for a guest speaker, the next could be an info session on where to eat vegetarian on campus, followed by a vegetarian recipe sharing event. It is important to note that these events must be held at regular intervals throughout the semester. Hosting an event the first month of classes and hosting the remaining three in the last month is harmful for attendance in two ways. First, the large gap in time might cause students to forget about what they learned at the last event. Secondly, having three events in a two week time span could reduce attendance if students feel overwhelmed and have to choose which event to go to. One event a month, if four is to remain the criteria to be met for EcoReps.

If the University of South Carolina is claiming to support sustainable initiatives, such as the composter, sustainability should be incorporated into all curricula. Therefore, the USC EcoReps could consider initiating a campaign to add a sustainability graduation requirement to the Carolina Core. This could be met through an introductory environmental science course, a relevant major elective, an internship, or service-learning class. Similar to most other Carolina Core requirements, it should be easy enough to find qualifying courses; the requirement simply ensures all students are exposed to the concepts of sustainability. A campaign of this nature might also help bring more females into the realm of sustainability. According to the survey,

females were generally more aware and engaged in the university's sustainable opportunities, but drastically fewer females had been enrolled in a sustainable course.

This exposure might also inspire more dedication to being sustainable. The vast majority of students believe in climate change, but half feel inconvenienced by sustainable behaviors and half are not interested in being any more sustainable than they already are. Complacency is a huge barrier in the fight against climate change; one that is prominent at the University of South Carolina. I believe the emphasis placed on particular actions, such as recycling, has led many people to believe that they are doing their part to save the environment by completing one or two simple tasks. An educational approach should be constructed that highlights the importance of staying dedicated to sustainability, without being intimidating or sounding alarmist. Here, targeting freshmen by hosting programs specifically for them might be one solution. By spreading a culture of sustainability starting their first day on campus, the obstacle of complacency could be turned into a school spirit challenge. Rather than waiting to table at the student organization fair, the EcoRep program could become an integral part of Welcome Week festivities. Early exposure could turn into continued exposure, resulting in graduates that are highly informed about sustainability.

Another way the university could further fulfill its commitment to sustainability would be to have all sustainability-related events advertised in weekly campus emails and newspapers. Lack of awareness was reported as the number one reason students did not attend a sustainability event. Email was also the preferred form of communication, but most survey participants were not willing to sign up for a new listserv. This is understandable, because students are already registered for more than enough email subscriptions. The university should not be making it difficult to spread the message of sustainability. I was interviewed for one of the university's

weekly e-newsletters about the EcoRep's No Impact Week events, but in the week's calendar at the bottom of the newsletter none of the events were listed. Exclusions such as this should not be tolerated by environmental organizations, nor encouraged by the university. Simply a link to an all-encompassing sustainability newsletter in USC's weekly newsletter would suffice.

An additional move for the EcoRep organization to consider is to expand their campus outreach. The program currently does a great job collaborating with other sustainable organizations, such as Sustainable Carolina. Unfortunately, some of the lower percentages reported suggest that future graduates may not have the well-rounded education to do their job responsibly for the environment. For example, hosting events in the School of Business, in conjunction with business school events, or for business students could have a great impact. This campaign team should also consider having events for the men on campus in order to get them more aware and involved. Coordinating with colleges or other clubs for personalized events may ensure diverse and attentive audiences. Continuation of the Climate Peer Educator campaign team would certainly achieve this.

Finally, this past year the USC EcoRep's campaign teams were very successful and I had the opportunity to be on a particularly creative one, I thought. The Water Campaign team held a design contest to create a new sticker for housing to place on residence hall mirrors in order to promote water conservation. I thought this was a great way to get students involved. It did not require face-to-face contact, but students were forced to think about the issue and how to represent it themselves. I would hope that many of the students that submitted designs are even more encouraged to act in such a way that conserves water. In addition, the winner and runner-ups could certainly mention to their friends that they designed a product used by the university and that in itself would spread the word about water conservation. Students may be more likely

to conserve water when told to do so by a friend. Event ideas similar to this, and many more could easily be done within residence halls to engage the students, adhering to the public engagement of science education model. For example, cloth shopping bag use was one of the behaviors reported the least and a contest could easily be done for a new logo. The EcoReps could draw up an informational factsheet on the contest topic in order to educate the contestants.

Implementing any or all of the suggested programs listed above could certainly make the EcoRep organization more prominent on campus. Overall, my main suggestion for the restructuring of the USC EcoRep organization based on the survey results would be to implement educational activities in residence halls that aim to culminate in significant and measurable behavior change in a way very similar to what is done in the current campaign teams in order to execute the suggested programs.

Conclusion

The goal of this thesis is to help make a positive impact on the growing climate change problem around the world by studying the undergraduate student population at the University of South Carolina. This was done by surveying the undergraduate student population in order for the EcoRep organization to more effectively increase environmental awareness or sustainable behaviors. In the survey I hoped to determine what the sustainable behaviors and habits of the undergraduate student population are, what motivates them to attend on-campus events, and if demographic information be helpful in tailoring climate change education.

It became clear that it was necessary to first understand the importance of the EcoReps mission, so I conducted scientific research on climate change and found evidence that it is a real and serious threat. I also came across research that suggested not only is the EcoRep organization's mission of education important, but it is also one of the most effective approaches for climate change mitigation. Environmental regulations are effective when they are supported by the values of the public and when the two do not align, education must take place. (Herrfährdt-Pahle et al., 2012). Education is the solution, because the public has not been prepared to handle the onslaught of contradictory climate change information or think critically about it due to a lack of and ineffective public science education and effective media miseducation (Cooper, 2011). As a result, getting the public to accept climate change is a problem has been much easier than getting the public to accept it needs to be prevented.

Next, I evaluated the presence of sustainability in higher education within the United States because college campuses have become a popular area for sustainable development (Williams, 2015). Furthermore, universities are empowering and enriching centers where students can learn that they are not immune to the effects of climate change, nor are they irrelevant to its mitigation. I also researched the breadth of EcoRep organizations nationwide to note the differences in how universities approach environmental that could possibly be adopted the University of South Carolina.

Finally, some suggestions for the EcoRep organization were presented using the survey results as a guide. For example, the organization should consider focusing more on conducting campus-wide campaigns in coordination with interactive events on the same issue or hosting events on similar topics during a single semester to collect behavior change information.

Optimistically, the EcoRep organization will find the information from this thesis and survey useful by increasing its on-campus presence through higher and more diverse attendance at events that are targeted more directly to the needs of this particular student population. The EcoRep organization is one of this unversity's best tools to shift the culture of sustainability on campus to one that is more engaged and progressive by ensuring students feel comfortable openly discussing the science of climate change, what can and is being done about it, and how they can take part and have the opportunities to do so. It is the hope of this project that through a shift toward a culture of sustainability, the student population will begin to guide the direction of sustainable progress at the University of South Carolina.

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Senior Thesis Survey

1. **What school/college will you graduate from?**
   Check all that apply.

   - [ ] College of Arts and Sciences
   - [ ] School of Public Health
   - [ ] School of Journalism
   - [ ] School of Music
   - [ ] School of Business
   - [ ] College of Engineering and Computing
   - [ ] College of Education
   - [ ] College of Nursing
   - [ ] College of Hospitality, Retail, and Sports Management
   - [ ] College of Social Work
   - [ ] Honors College
   - [ ] College of Information and Communications
   - [ ] Other: _____

2. **What year are you in school?**
   Mark only one oval.

   - ◯ Freshman
   - ◯ Sophomore
   - ◯ Junior
   - ◯ Senior
   - ◯ Fifth year or greater

3. **On a scale from 1 to 5 (5 being the highest), how environmentally conscious would you rate yourself?**
   Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

4. **Do you recycle paper products?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

5. **Do you recycle plastic and aluminum products?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

6. **Do you buy products made from recycled materials?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

7. **Do you buy used products?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

8. **Do you compost?**
Mark only one oval.

- Never
- Often
- Rarely
- Someimes
- Often
- Always
- I do not know what this is

9. **Do you purchase organic food?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

10. **Do you purchase local food?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

11. **Do you restrict your meat consumption?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

12. **Do you use cloth shopping bags?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

13. **Do you recycle or reuse plastic shopping bags?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

14. **Do you buy LED/fluorescent light bulbs?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

15. **Do you turn off/unplug appliances when you stop using them?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

16. **Do you carpool when possible?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

17. **Do you bike or walk distances up to one mile when possible?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

18. **Do you time your showers to 5 minutes or less?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

19. **Do you turn off the faucet when brushing your teeth?**
Mark only one oval.

- Never
- Rarely
- Sometimes
- Often
- Always
- I do not know what this is

20. **Have you ever taken a course at USC that incorporated topics related to sustainability?**
Mark only one oval.

- Yes
- No

21. **If there are behaviors listed above that you have rarely or never performed, why is that?**
Mark only one oval.

- Cost
- Inconvenience
- No interest
- Did not know about the behavior

22. **On a scale from 1 to 5 (5 being the highest), how environmentally conscious would you rate your parent(s)/guardian(s)?**
Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

23. **Do you believe in climate change?**
Mark only one oval.

- Yes
- No

24. **Do your parent(s)/guardian(s) believe in climate change?**
Mark only one oval.

- Yes
- No

25. **Are any of the behaviors you rated above learned from your parent(s)/guardian(s)?**
Mark only one oval.

- Yes
- No

26. **After taking this survey, will you adopt or increase any of these behaviors?**
Mark only one oval.

- Yes
- No

27. **What motivates you to attend on-campus events?**
Check all that apply.

- [ ] Subject
- [ ] Food
- [ ] Prizes
- [ ] Music
- [ ] Celebrity guests
- [ ] Advertising
- [ ] Friends attending
- [ ] Other: _____

28. **What kind of event communication do you most prefer?**
Check all that apply.

- [ ] Email
- [ ] Word of Mouth
- [ ] Poster
- [ ] Social media
- [ ] Other: _____

29. **Do you know of any environmental organizations on campus?**
Mark only one oval.

- ◯ Yes
- ◯ No

30. **List them here (or type N/A)**

_____

_____

_____

_____

_____

31. **Are you familiar with the EcoReps program?**
Mark only one oval.

- ◯ Yes
- ◯ No

32. **If you are an on-campus resident, do you know who your EcoRep is?**
Mark only one oval.

- Yes
- No
- N/A

33. **Have you attended events held by an environmental organization on campus?**
Mark only one oval.

- Yes
- No

34. **If no, why not?**
Check all that apply.

- Inconvenient time
- Inconvenient location
- Not interested
- No incentive
- Did not know about them
- I attended an event

35. **Would you consider attending an eco-event after taking this survey?**
Mark only one oval.

- Yes
- No

36. **Would you like to sign up for Sustainable Carolina's newsletter?**
Mark only one oval.

- Yes
- No

37. **Enter email (or type N/A)**

38. **What race/ethnicity do you identify with?**
Mark only one oval.

- Black or African American
- American Indian or Alaskan Native
- Asian
- Native Hawaiian or Pacific Islander
- Caucasian
- Hispanic or Latino

39. **Are you a U.S. citizen?**
Mark only one oval.

- Yes
- No

40. **How do you describe yourself?**
Mark only one oval.

- Male
- Female
- Trans
- Do not identify as male, female, or trans

41. **What region of the country are you from?**
Mark only one oval.

- Northeast
- Southeast
- Southwest
- Midwest
- West
- North Pacific

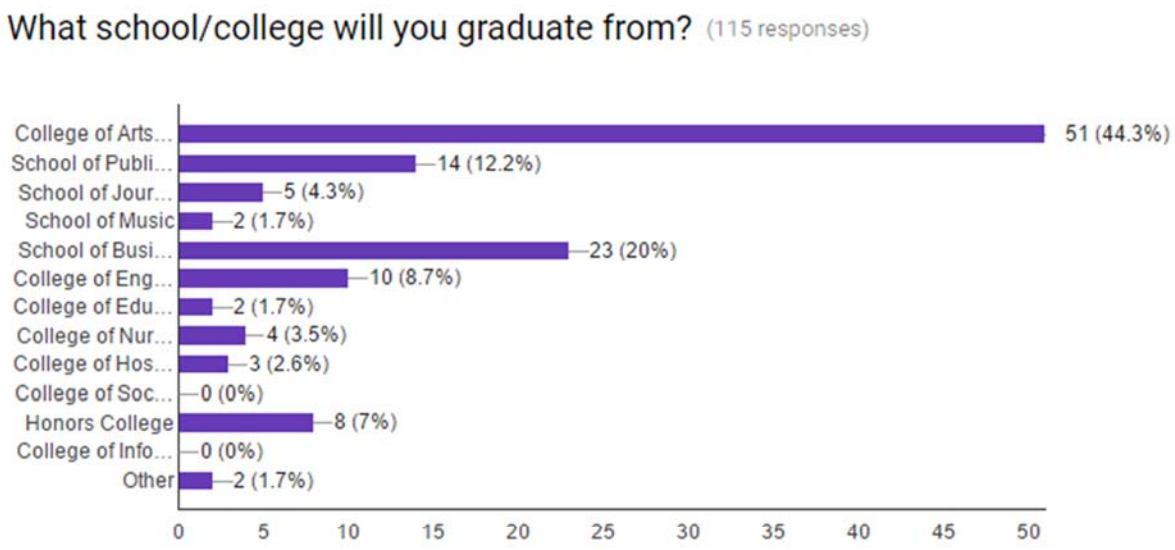
42. **What is the highest education level of your parent(s)/guardian(s)?**
Mark only one oval.

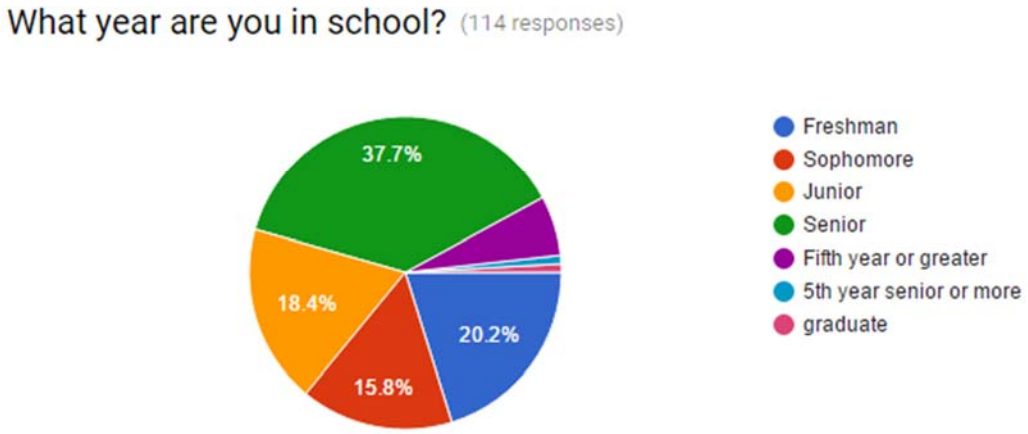
- High school
- Community/Technical College
- Undergraduate at four year institution
- Master's
- Doctorate

43. **Estimated total family income:**
Mark only one oval.

- Less than 40,000
- 40,000-80,000
- 80,000-120,000
- More than 120,000

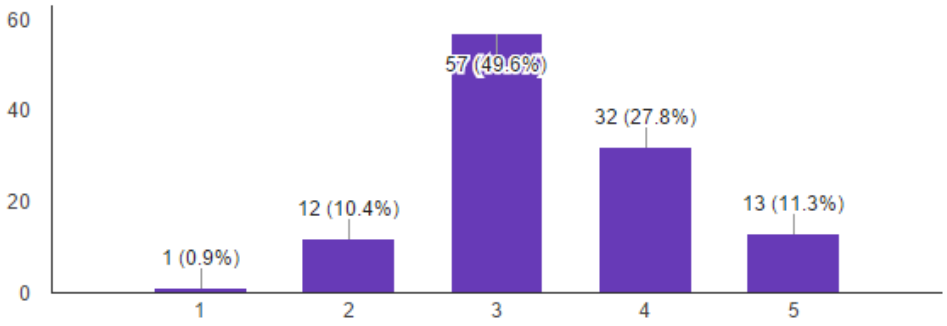
Survey Results



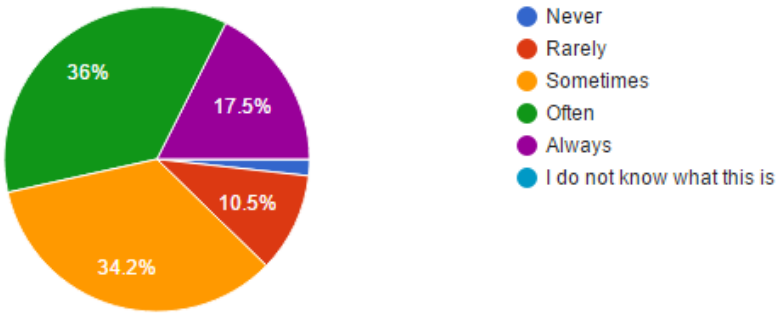


On a scale from 1 to 5 (5 being the highest), how environmentally conscious would you rate yourself?

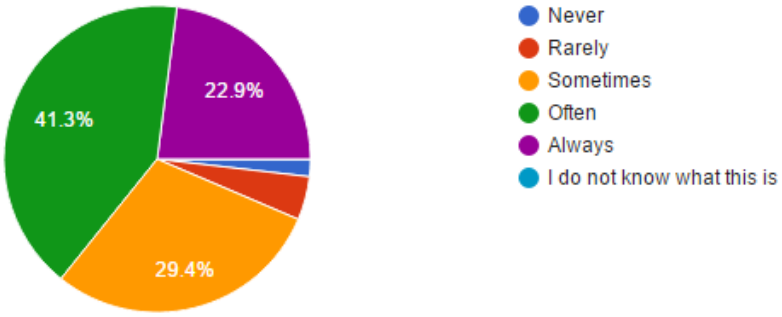
(115 responses)



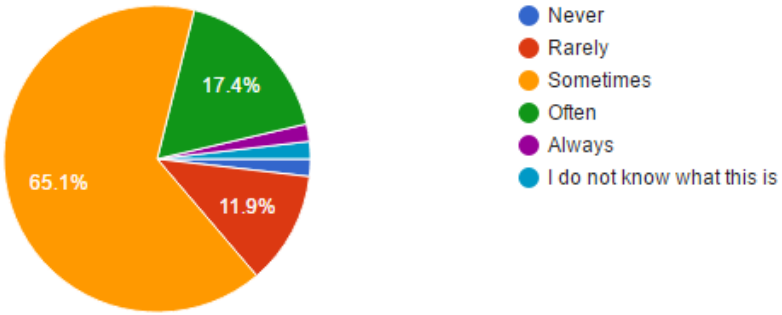
Do you recycle paper products? (114 responses)



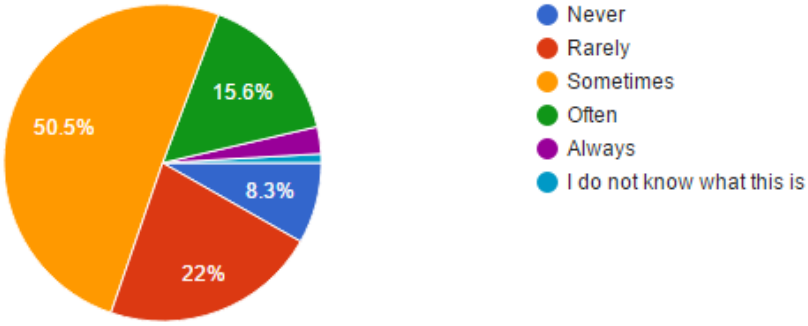
Do you recycle plastic and aluminum products? (109 responses)



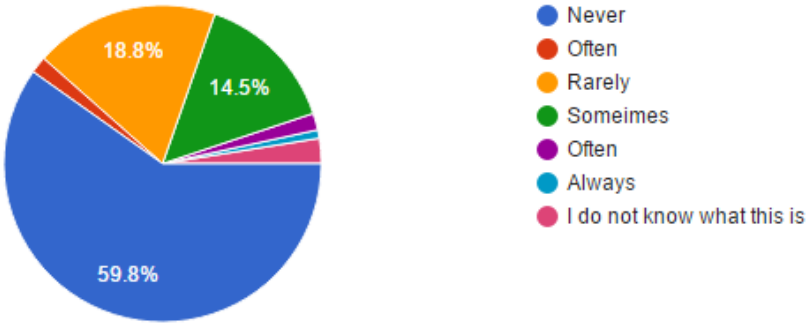
Do you buy products made from recycled materials? (109 responses)



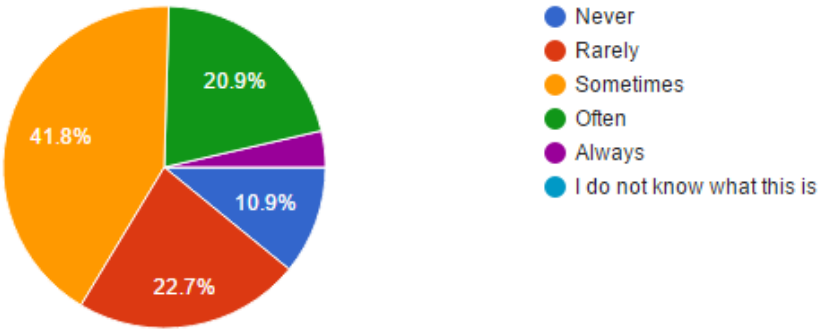
Do you buy used products? (109 responses)



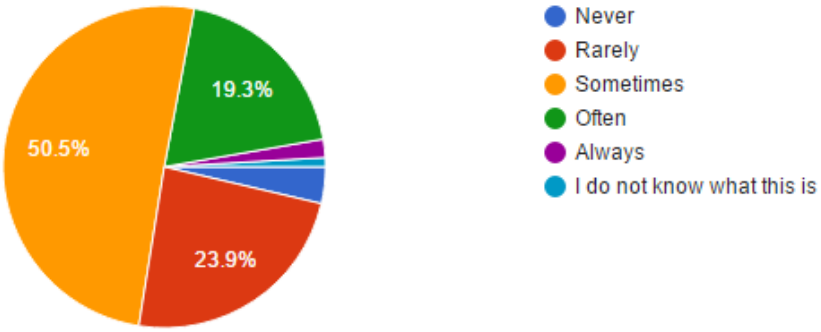
Do you compost? (115 responses)



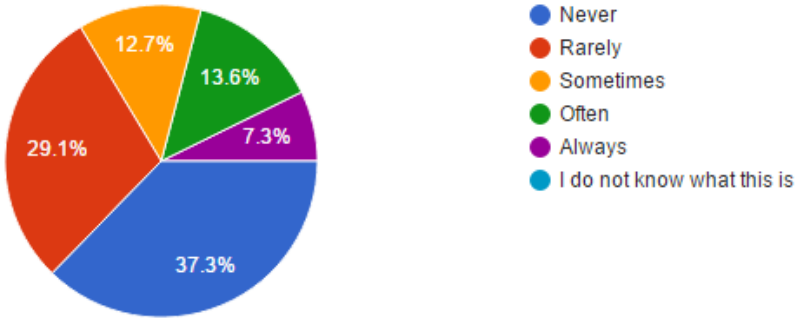
Do you purchase organic food? (110 responses)



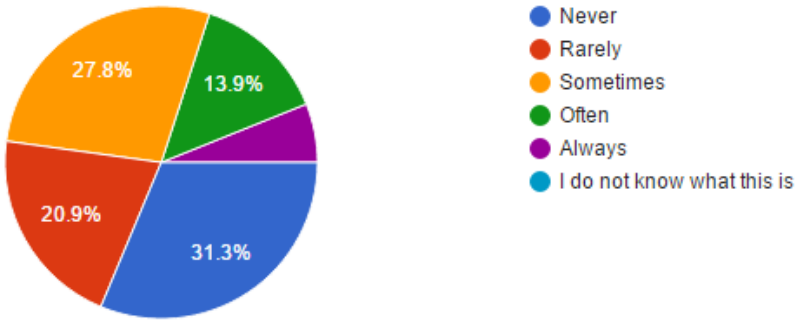
Do you purchase local food? (109 responses)



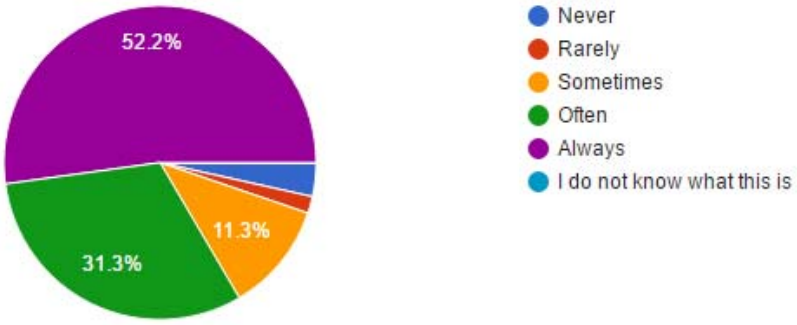
Do you restrict your meat consumption? (110 responses)



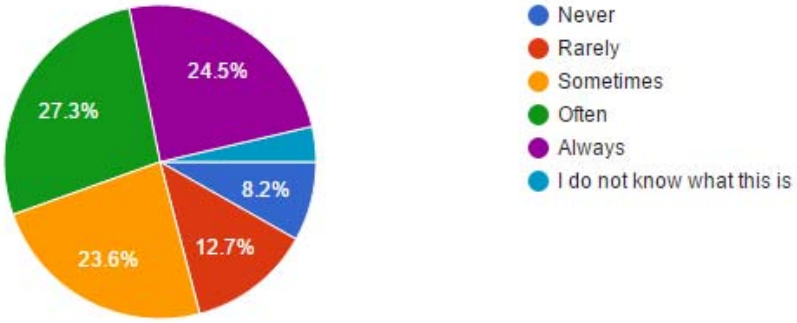
Do you use cloth shopping bags? (115 responses)



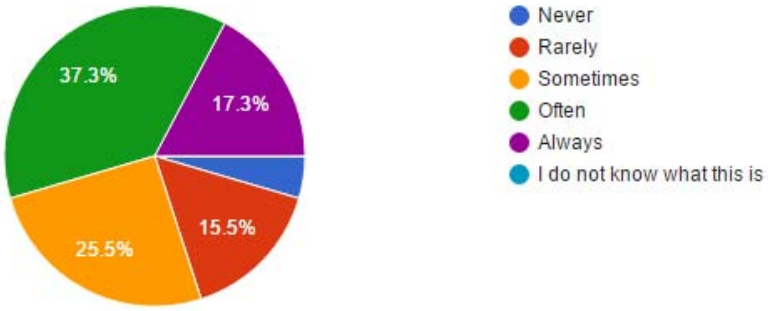
Do you recycle or reuse plastic shopping bags? (115 responses)



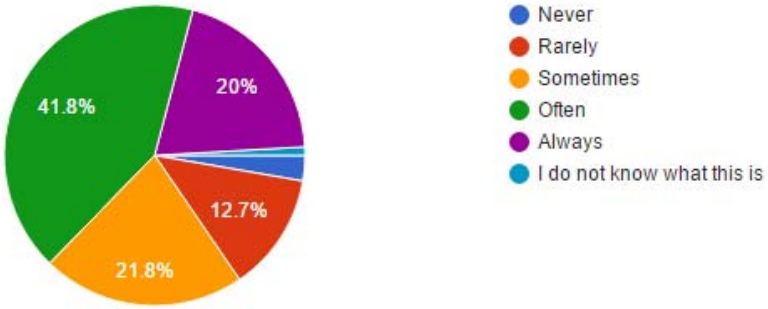
Do you buy LED/fluorescent light bulbs? (110 responses)



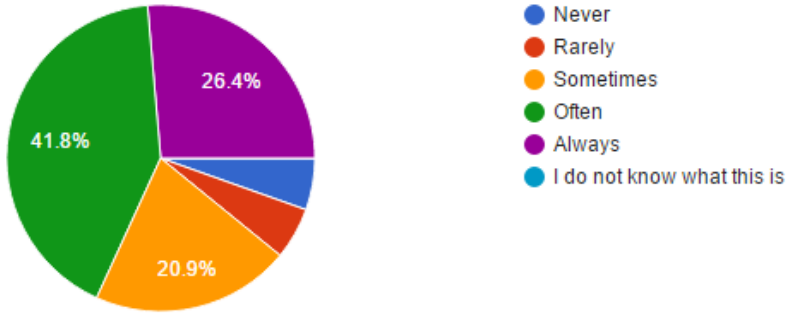
Do you turn off/unplug appliances when you stop using them? (110 responses)



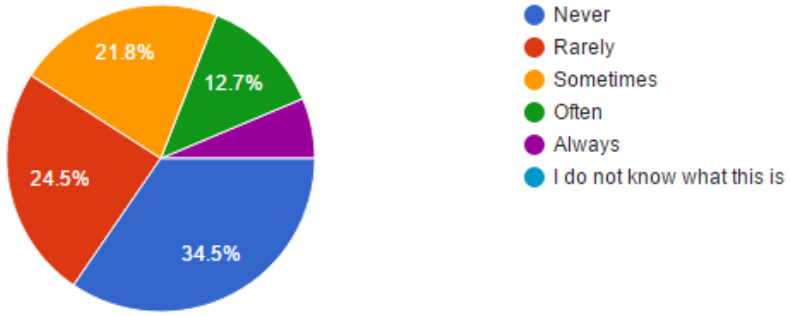
Do you carpool when possible? (110 responses)



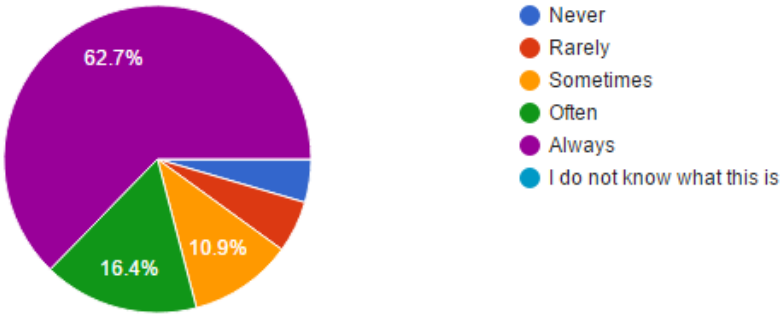
Do you bike or walk distances up to one mile when possible? (110 responses)



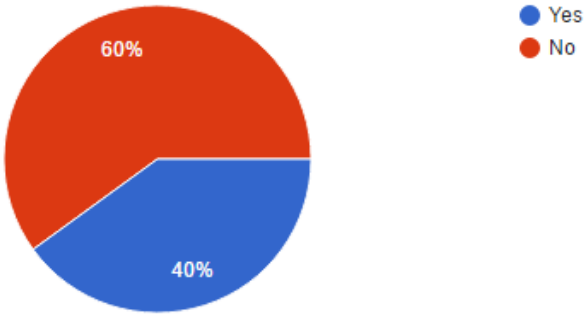
Do you time your showers to 5 minutes or less? (110 responses)



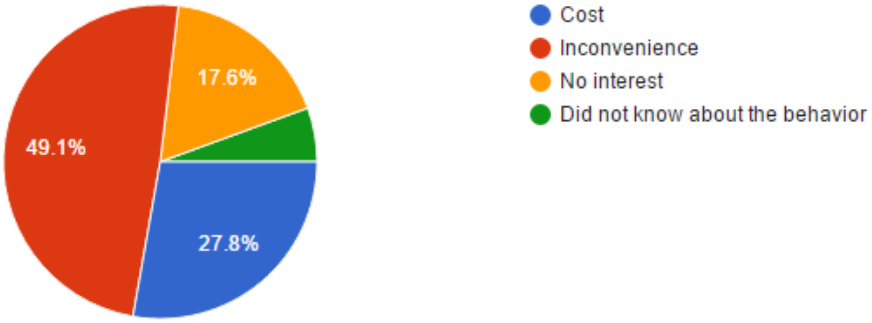
Do you turn off the faucet when brushing your teeth? (110 responses)



Have you ever taken a course at USC that incorporated topics related to sustainability?
(110 responses)

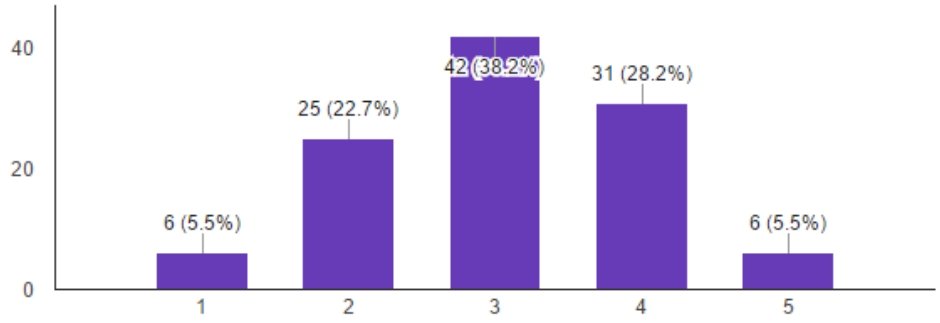


If there are behaviors listed above that you have rarely or never performed, why is that?
(108 responses)

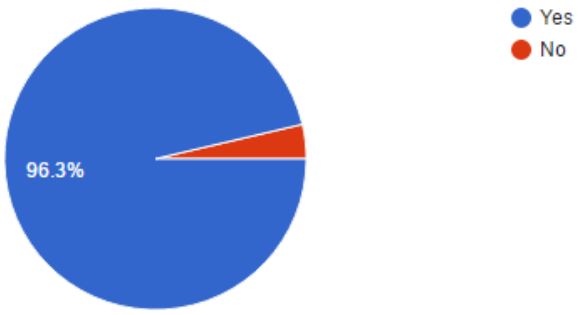


On a scale from 1 to 5 (5 being the highest), how environmentally conscious would you rate your parent(s)/guardian(s)?

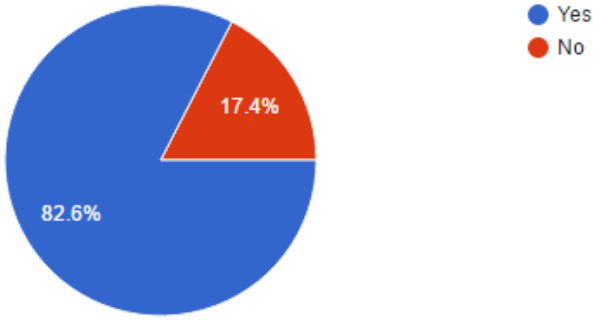
(110 responses)



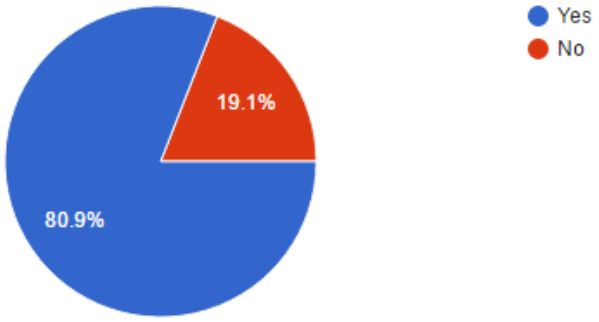
Do you believe in climate change? (109 responses)



Do your parent(s)/guardian(s) believe in climate change? (109 responses)

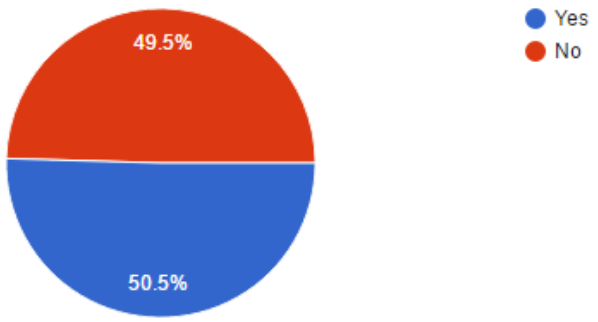


Are any of the behaviors you rated above learned from your parent(s)/guardian(s)?
(110 responses)

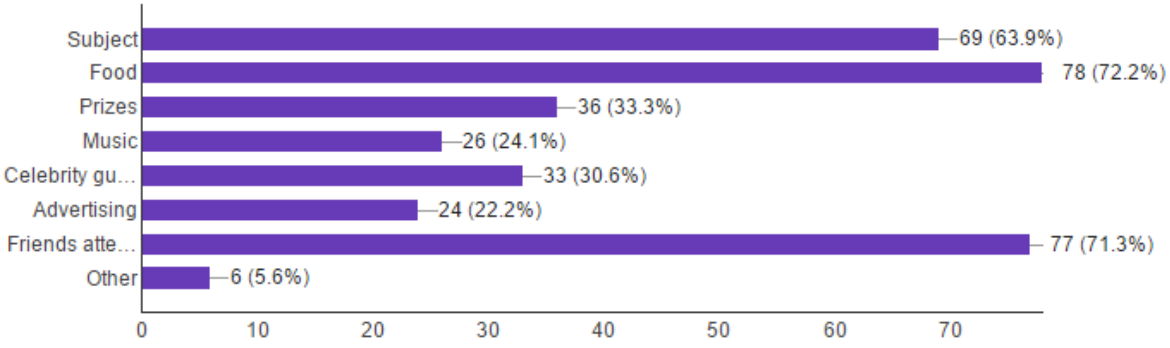


After taking this survey, will you adopt or increase any of these behaviors?

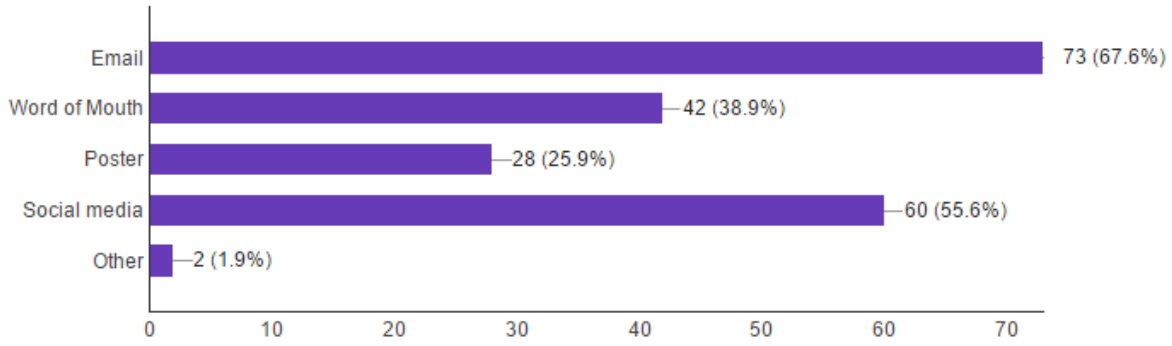
(109 responses)



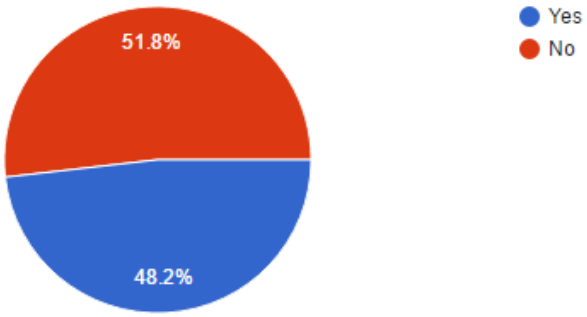
What motivates you to attend on-campus events? (108 responses)



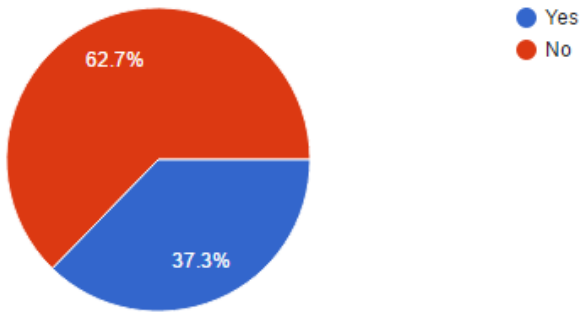
What kind of event communication do you most prefer? (108 responses)



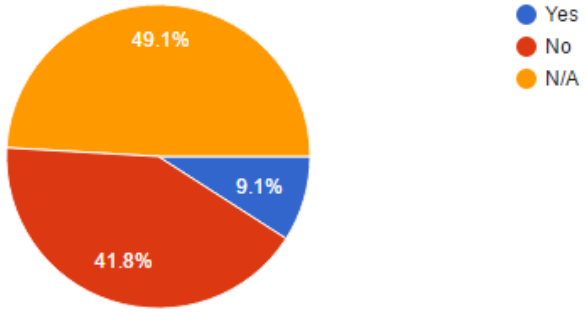
Do you know of any environmental organizations on campus? (110 responses)



Are you familiar with the EcoReps program? (110 responses)

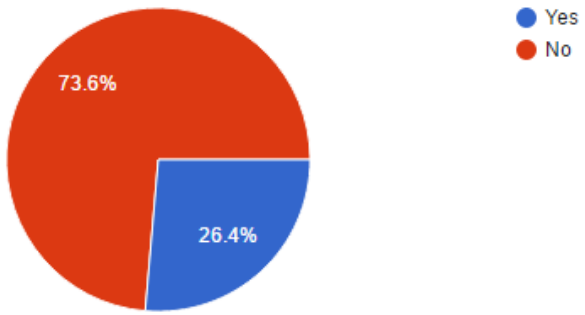


If you are an on-campus resident, do you know who your EcoRep is?
(110 responses)

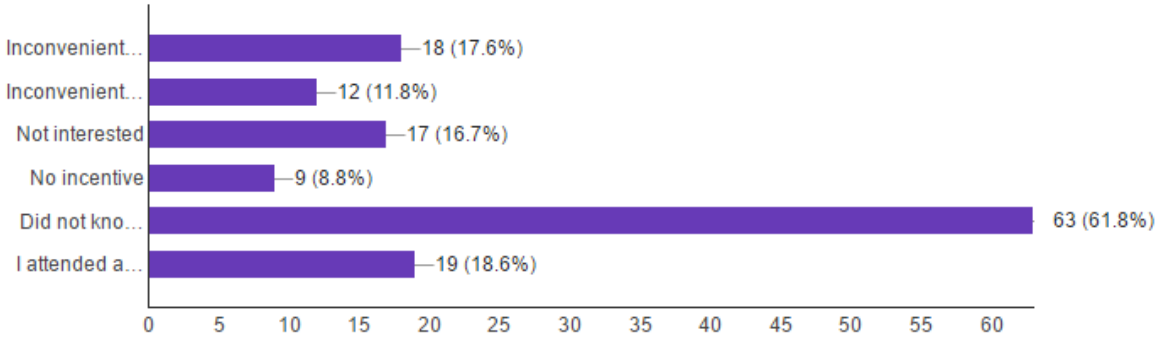


Have you attended events held by an environmental organization on campus?

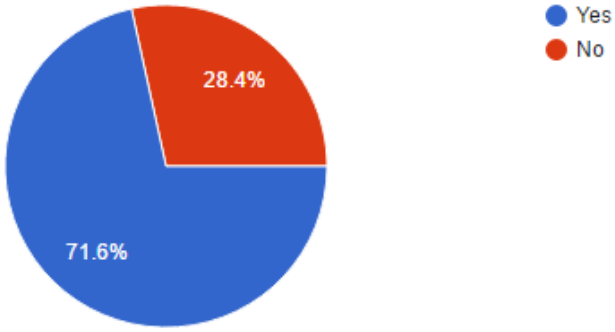
(110 responses)



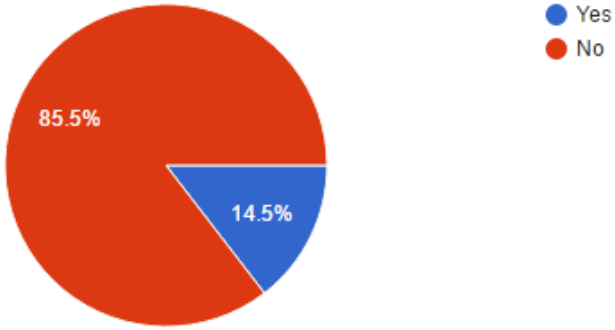
If no, why not? (102 responses)



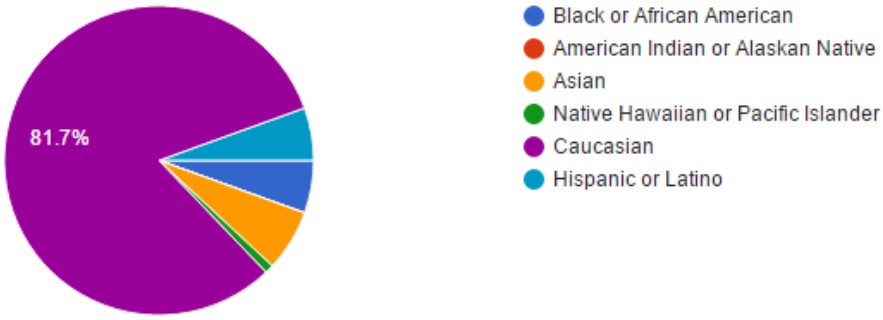
Would you consider attending an eco-event after taking this survey?
(109 responses)



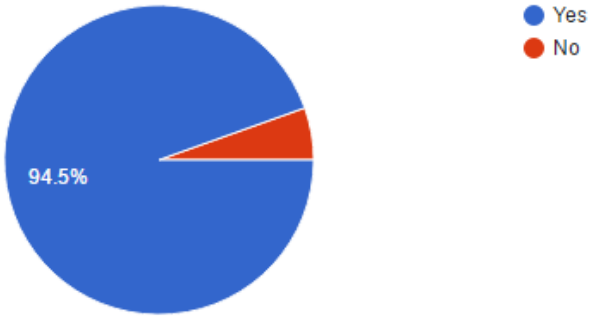
Would you like to sign up for Sustainable Carolina's newsletter? (110 responses)



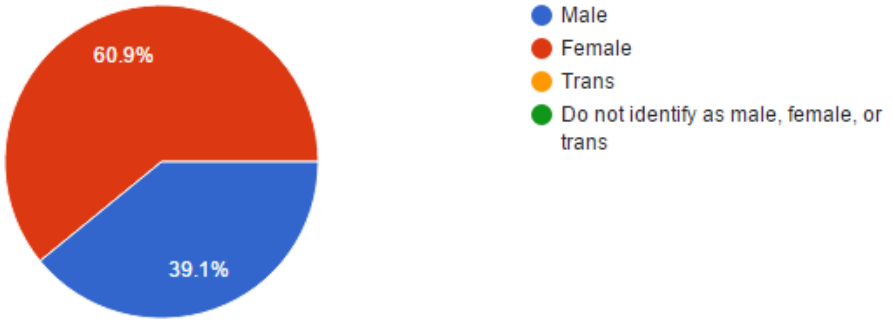
What race/ethnicity do you identify with? (109 responses)



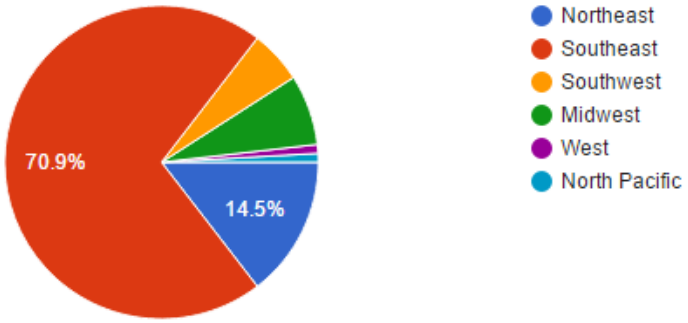
Are you a U.S. citizen? (110 responses)



How do you describe yourself? (110 responses)

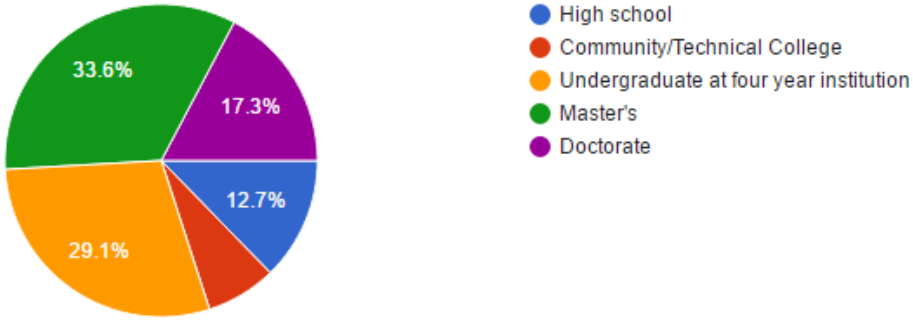


What region of the country are you from? (110 responses)



What is the highest education level of your parent(s)/guardian(s)?

(110 responses)



Estimated total family income: (108 responses)