

# The “Green Game”: Awareness and Expectations of Sustainability Efforts at an NC State Baseball Game

**Report Completed by:**

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## Report Summary

On April 29, 2011, a research team led by Dr. Jonathan Casper conducted a game day survey at an NC State Baseball game against Maryland. The contest was themed as a *Green Game*. Pre-game efforts included announcements on the NC State Athletics web page (gopack.com) and the NC State Sustainability weekly e-newsletter. At the game, a sustainability information table was set-up at the main entrance where volunteers communicated the purpose of the game, distributed information on sustainability projects and initiatives, and gave away “green-themed” merchandise (e.g., pens, golf tees, t-shirts). During the 5<sup>th</sup> inning, a sustainability-themed promotional video was shown, and after the game there was proactive recycling by volunteers. Sport management student volunteers distributed and collected the surveys up until game time. A follow-up web-based survey was then sent to respondents who indicated a willingness to complete an additional survey three days after the game.

A total of 162 valid surveys were obtained. Based on the number of attendees by game time, it is estimated that the response rate was over 50%. There were more males (58%), the average age was approximately 36 years old, and 51% were –non-students. Since students and non-students are stakeholders for both Athletics Department and University Sustainability efforts, results are shown for each segment.

Most of the attendees were not aware of the *green* focus before the game (Game Day, Item 1). Most students were aware of NC State’s *Earth Day* efforts, but a majority of students and non-students indicated they were not aware of other efforts (Game Day, Item 2). The only Athletics Department-related effort that a majority of the respondents were aware of was *WeRecycle* (Game Day, Item 3). The results indicated there is some expectation for environmental efforts to be undertaken by University personnel and by Athletics Department personnel with slightly higher expectations held towards the University (Game Day, Item 4). Non-students had a slightly higher expectation of environmental action than students for both the University and the Athletics Department (Game Day, Item 4). A majority of all respondents had expectations (>50%) related to environmental elements at athletic events that included recycling, energy conservation, water usage reduction, and alternative transportation options (by students only) (Game Day, Item 5). A majority of the respondents did not expect athletic environmental efforts related to composting, carbon emissions reduction, incentivized transportation, educational outreach, , a commitment to green buildings/operations, or donating to campus sustainability efforts (Game Day, Item 5). In most cases, the students had a higher percentage of expectation in terms of environmental elements than non-students with the exception of education outreach efforts (Game Day, Item 5).

A total of 35 respondents completed the follow-up survey. In regard to awareness of game-related actions, 57% visited the Sustainability information table, and 51% reporting viewing the video shown during the 5<sup>th</sup> inning (Post-Game, Item 1). Based on these responses, about 86% stated the game changed their awareness of NC State’s environmental efforts and over 88% stated the game changed their awareness of Athletic department efforts (Post-Game, Item 2).

Over half of the respondents indicated that the game made them want to take more personal action related to recycling, energy conservation, and water conservation (Post-Game, Item 2). The game also increased a willingness to take action or learn more about other efforts such as carbon emissions and educational outreach opportunities (Post-Game, Item 2). Over 54% indicated the game changed their personal perspective of environmental issues, and 77% stated their perspective has positively changed related to NC State's environmental actions (Post-Game, Item 2).

## Recommendations

- Future efforts need to focus on promoting the “green”-theme better for specific green games. Pre-game marketing is essential to build awareness, to encourage participation in any pre-game and in-game activities.
- Explore development of coordinated environmental strategy between Athletics Department and University Sustainability personnel (we are working on this!)
- Athletic events can be effective to initiate behavior change efforts related to energy conservation, water usage, and alternative transportation and not just raise awareness. NC State Athletics is comprised of numerous sports that provide different engagement opportunities to reach different audiences (or overlapping ones) and to develop relationships with different stakeholders (e.g., environmental organizations, corporate partners) to help activate the efforts.
- Results show that spectators are receptive to “green” efforts and can be use to leverage sponsorship/cooperation for environmental corporate entities.
- Use athletic events to promote athletic and non-athletic environmental initiatives and/or achievements (e.g., game day announcement - Did you know that by having low-flow toilets in the stadiums NCSU saved X amount of water at today's game?). This can be done through e-newsletters, press conferences, and development of a dedicated micro-website and various social media platforms.
- Use experiential events to showcase NC State's commitment to sustainability, especially towards the non-students who stated an interest in environmental efforts. Athletic events can be a primary communication channel to reach them, but others can be developed in conjunction with different stakeholders and platforms (e.g., website, social media).

**Game Day Survey**  
**April 29, 2011**  
**Opponent: Maryland**  
**(162 Total Responses)**

**Demographics**

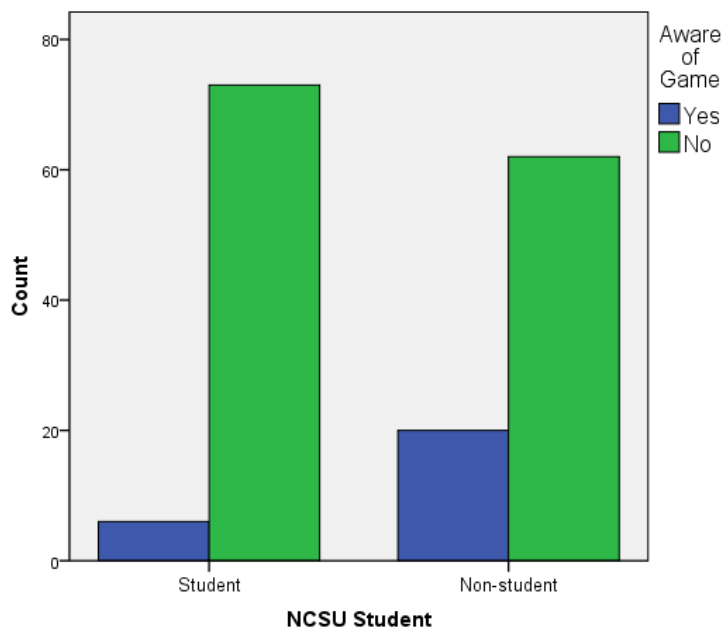
**Age:** Mean = 35.62 years (SD = 18.20); Range 18-79 years

**Gender:** Male = 94 (58%); Female = 67 (42%)

**Student Status:** Current Student = 78 (49%); Non-Student = 82 (51%)

**Item 1. Awareness of Game's Sustainability Focus**

**Student vs. Non-Student Awareness of Sustainability Focus of Game**

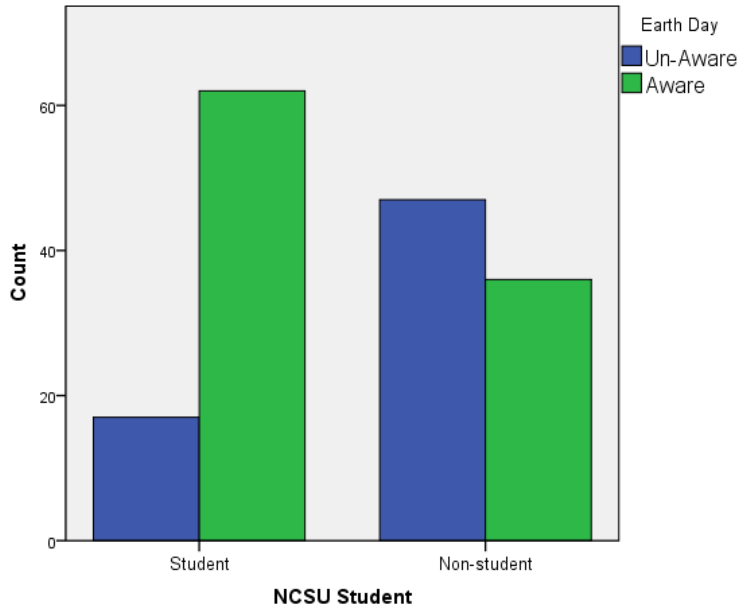


Students Aware: 7.6%  
 Students Un-Aware: 92.4%  
 Non-Students Aware: 24.4%  
 Non-Students Unaware: 75.6%

\*Significant difference between students and non-students

Item 2. Awareness of NC State Environmental Efforts (Non-Game)

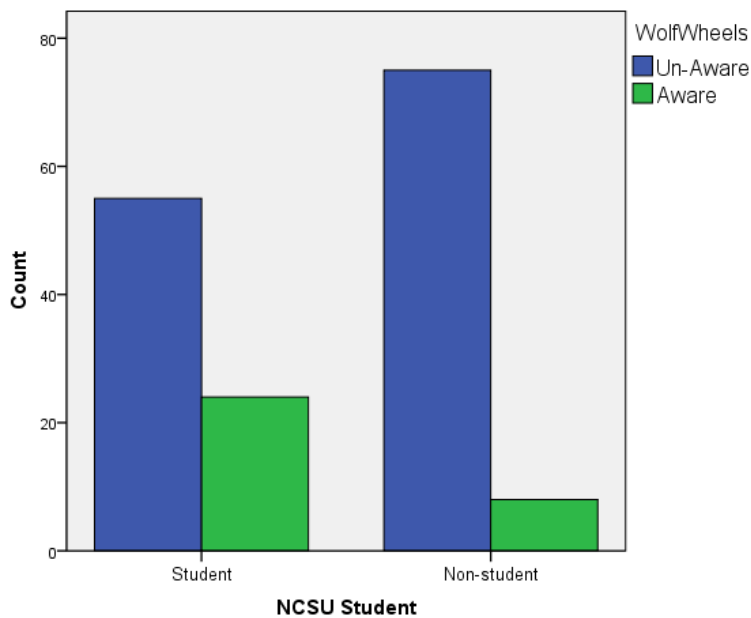
**Student vs. Non-Student Earth Day Awareness**



Students Aware: 78.5%  
 Students Un-Aware: 21.5%  
 Non-Students Aware: 43.4%  
 Non-Students Unaware: 56.6%

\*Significant difference between students and non-students

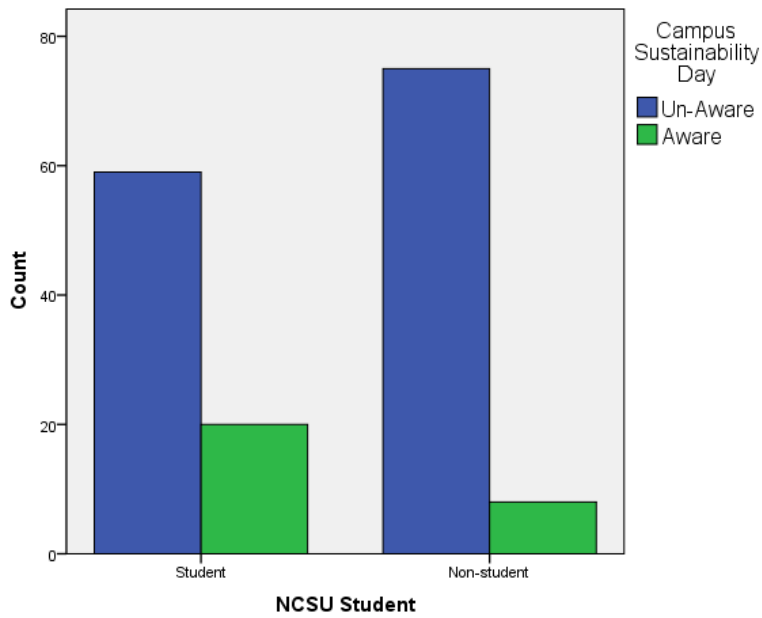
**Student vs. Non-Student Awareness of WolfWheels**



Students Aware: 30.4%  
 Students Un-Aware: 69.6%  
 Non-Students Aware: 9.6%  
 Non-Students Unaware: 90.4%

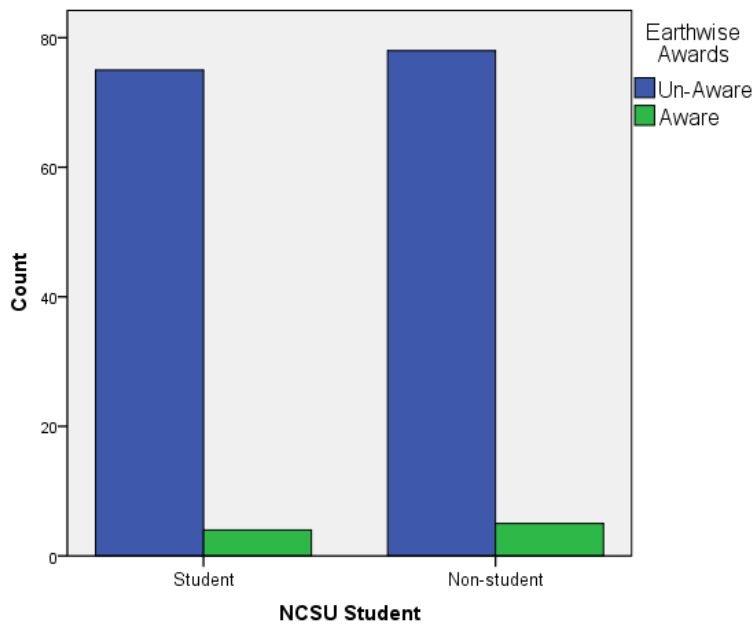
\*Significant difference between students and non-students

**Student vs. Non-Student Awareness of Campus Sustainability Day**



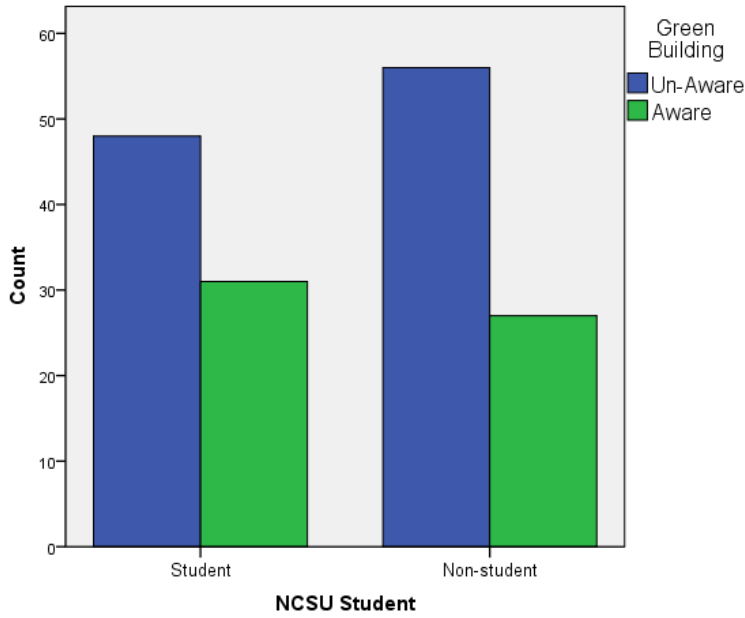
Students Aware: 25.3%  
 Students Un-Aware: 74.7%  
 Non-Students Aware: 9.6%  
 Non-Students Unaware: 90.4%

**Student vs. Non-Student Awareness of Earthwise Awards**



Students Aware: 5.1%  
 Students Un-Aware: 94.9%  
 Non-Students Aware: 6.0%  
 Non-Students Unaware: 94%

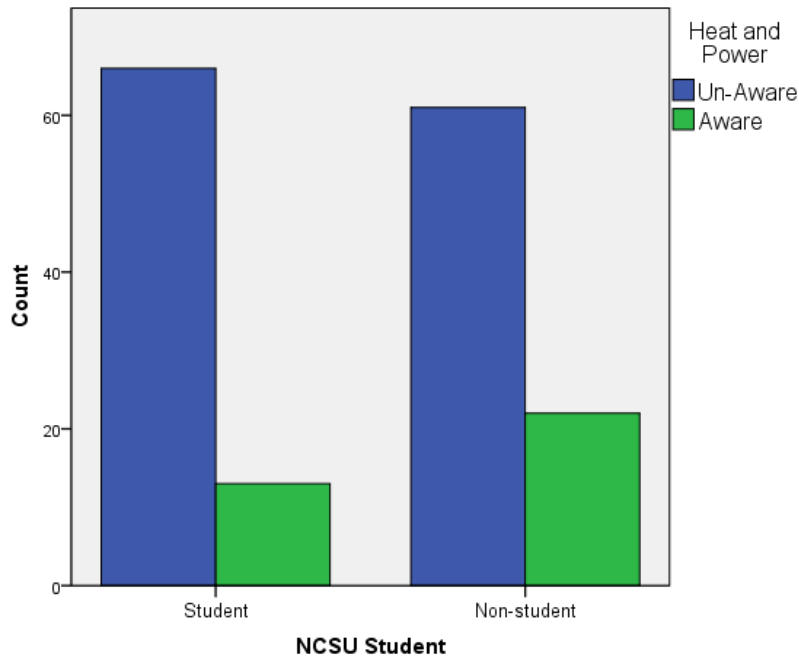
**Student vs. Non-Student Awareness of Green Building Commitment**



Students Aware: 39.2%  
Students Un-Aware: 60.8%

Non-Students Aware: 32.5%  
Non-Students Unaware: 67.5%

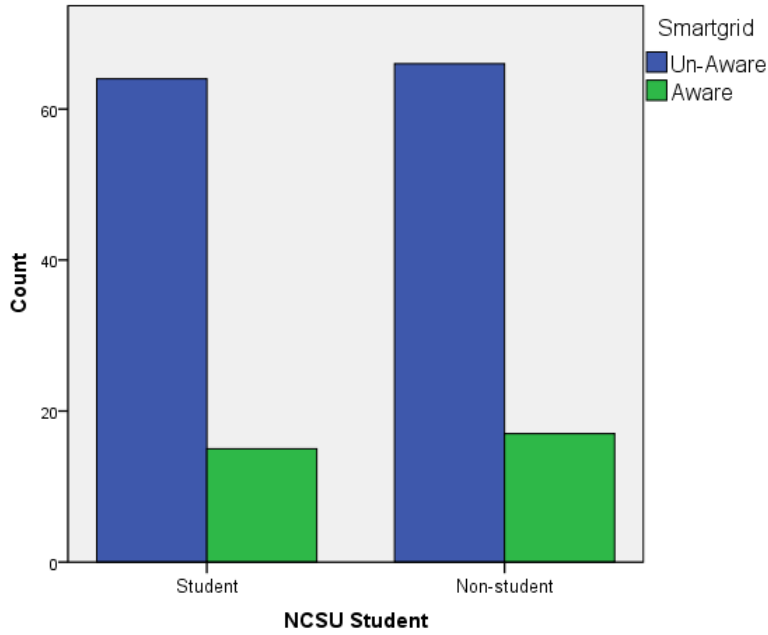
**Student vs. Non-Student Awareness of Combined Heat & Power Plant**



Students Aware: 15.2%  
Students Un-Aware: 84.8%

Non-Students Aware: 26.5%  
Non-Students Unaware: 73.5%

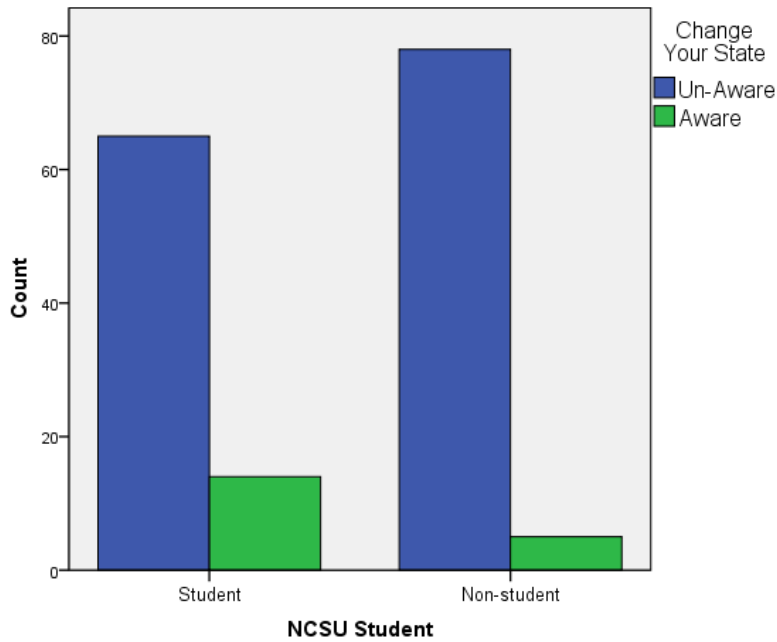
**Student vs. Non-Student Awareness of Smartgrid/Biofuels Research**



Students Aware: 19.0%  
 Students Un-Aware: 81.0%

Non-Students Aware: 20.5%  
 Non-Students Unaware: 79.5%

**Student vs. Non-Student Awareness of "Change your State" Campaign**



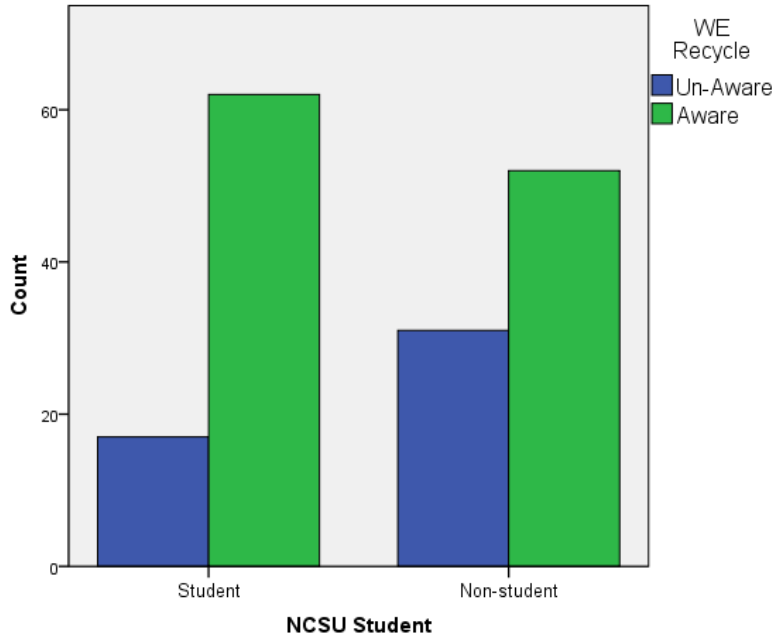
Students Aware: 17.7%  
 Students Un-Aware: 82.3%

Non-Students Aware: 6.0%  
 Non-Students Unaware: 94.0%



Item 3. NC State Athletics Environmental Efforts

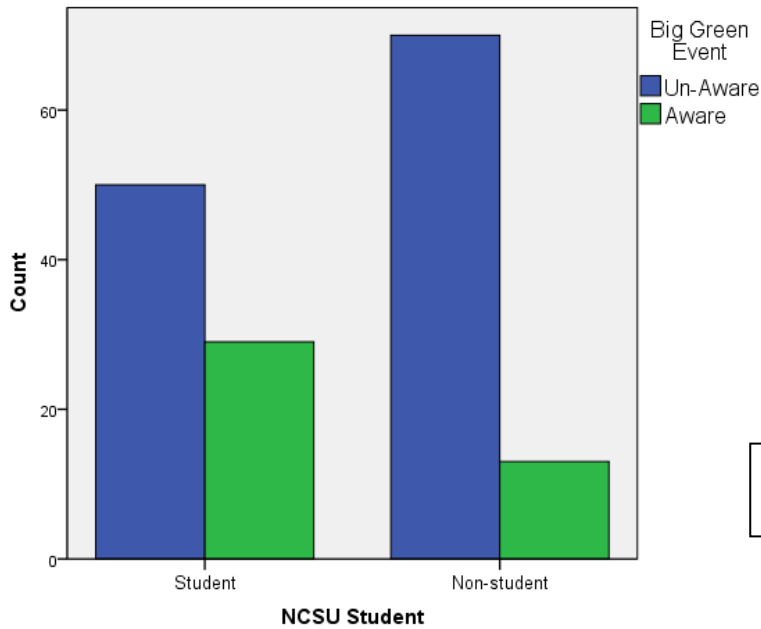
**Student vs. Non-Student Awareness of WE Recycle**



Students Aware: 78.5%  
 Students Un-Aware: 21.5%

Non-Students Aware: 62.7%  
 Non-Students Unaware: 37.3%

**Student vs. Non-Student Awareness of The Big "Green" Event**

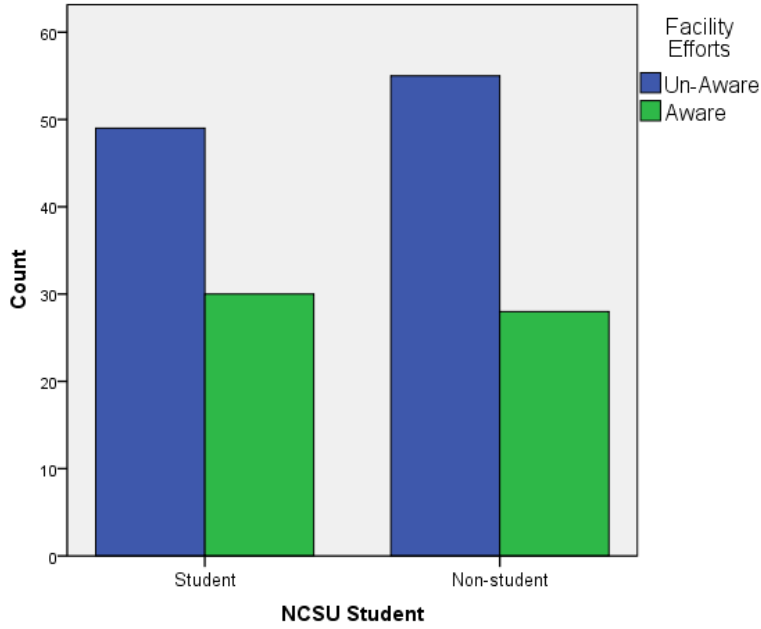


Students Aware: 36.7%  
 Students Un-Aware: 63.3%

Non-Students Aware: 15.7%  
 Non-Students Unaware: 84.3%

\*Significant difference between students and non-students

**Student vs. Non-Student Awareness of Environmental Facility Efforts**

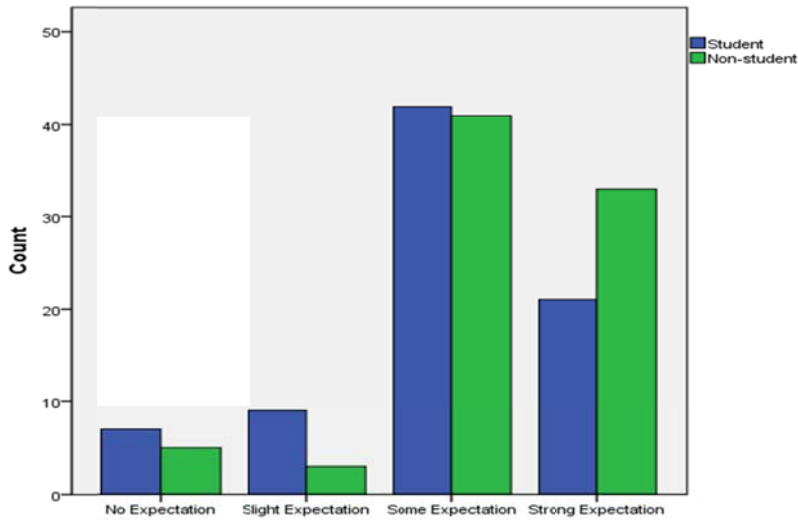


Students Aware: 38%  
Students Un-Aware: 62%

Non-Students Aware: 33.7%  
Non-Students Unaware: 66.3%

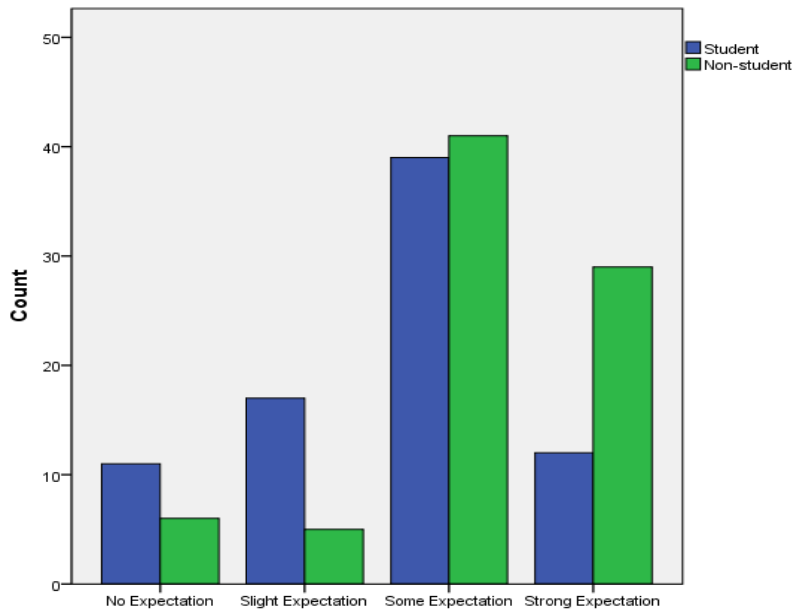
Item 4. Expectations for Environmental Efforts

**University**



: 3.11 = 2.97 .24
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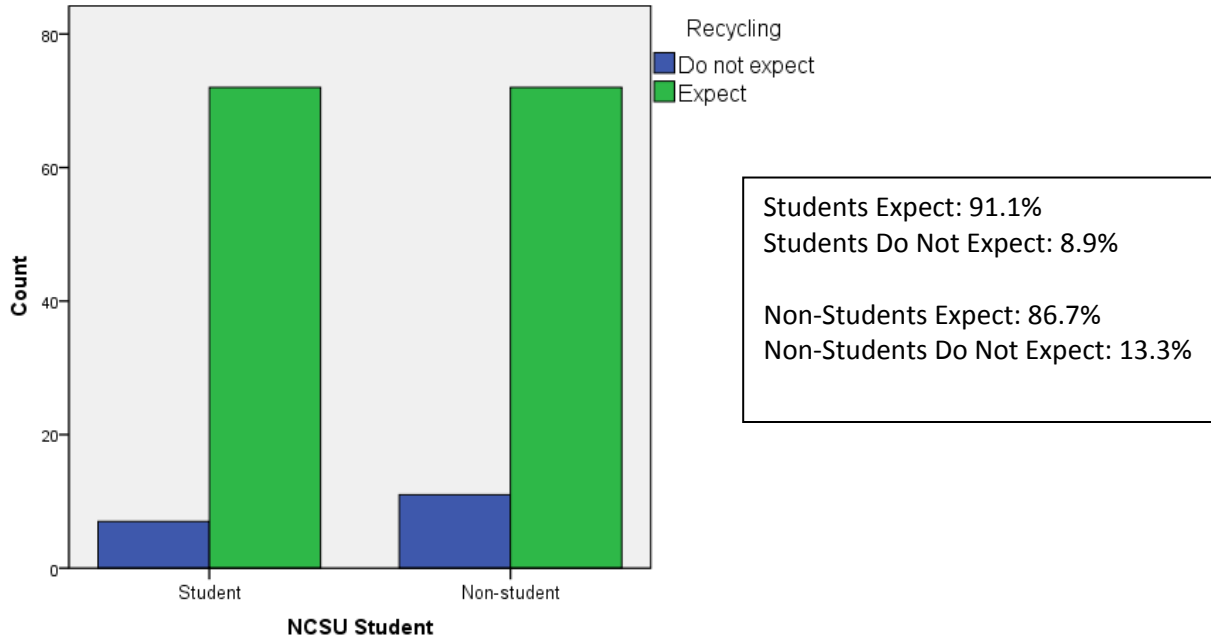
**Athletic Department**



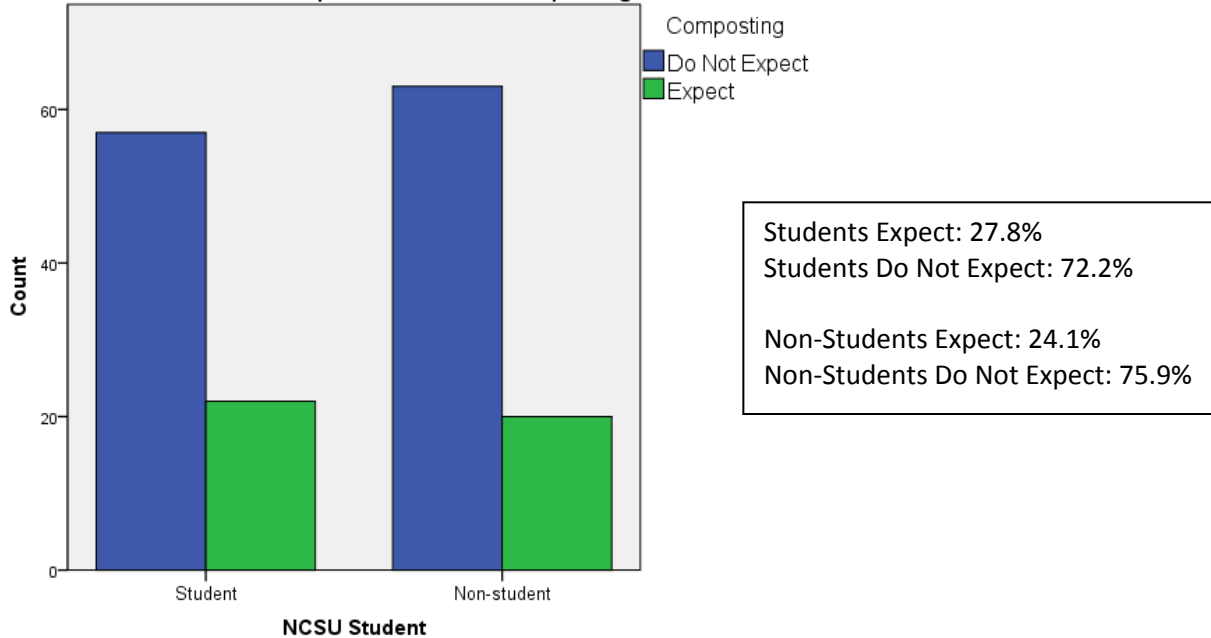
: 2.91 = 2.66 .15
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Item 5. Environmental Elements or Activities Expected (or Learn About) at Athletic Contests/Games

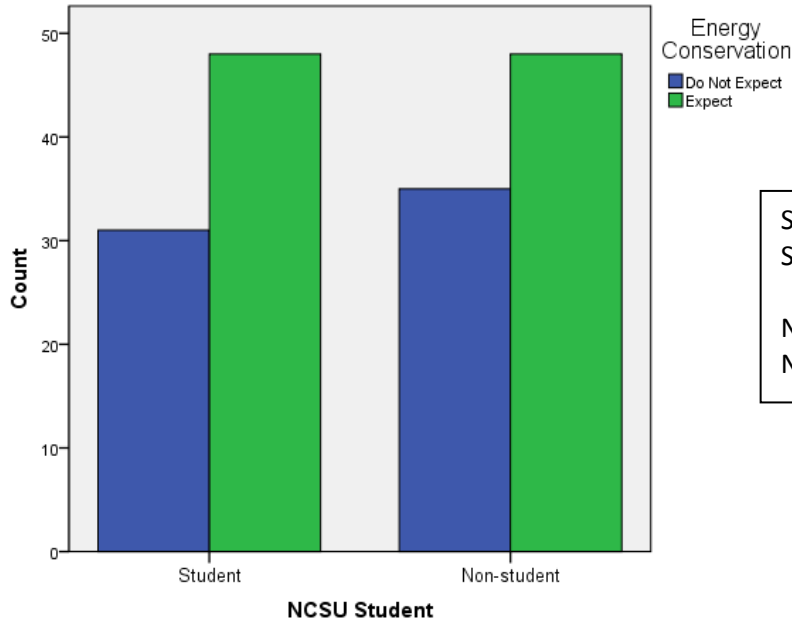
**Student vs. Non-Student Recycling Expectations at Athletic Events**



**Student vs. Non-Student Expectations about Composting at Athletic Events**



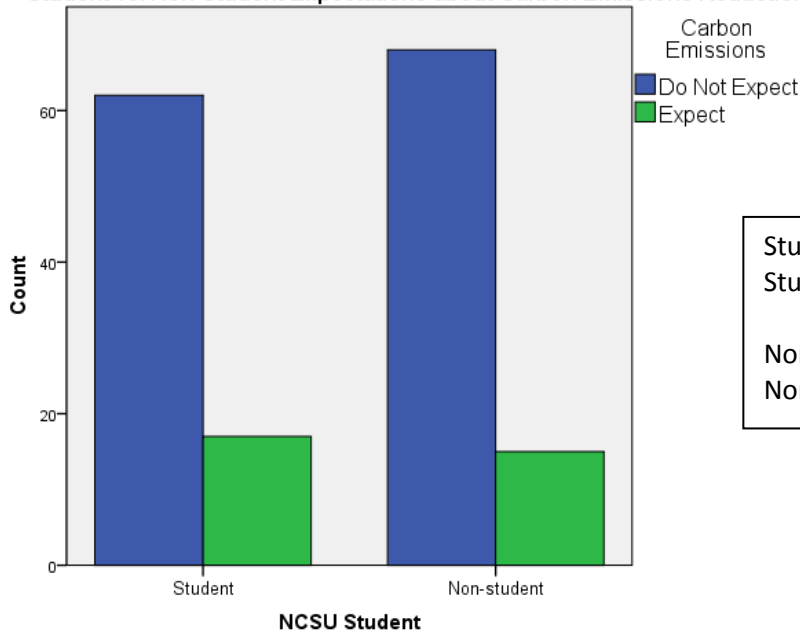
**Student vs. Non-Student Expectations about Energy Conservation**



Students Expect: 60.8%  
 Students Do Not Expect: 39.2%

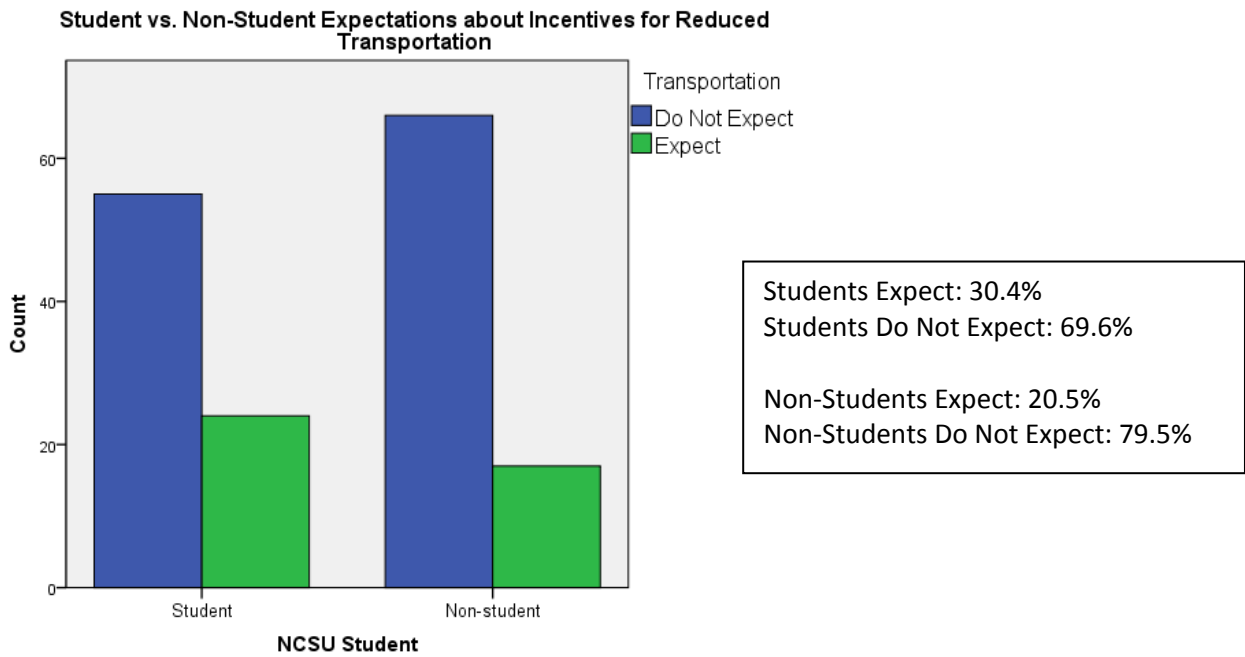
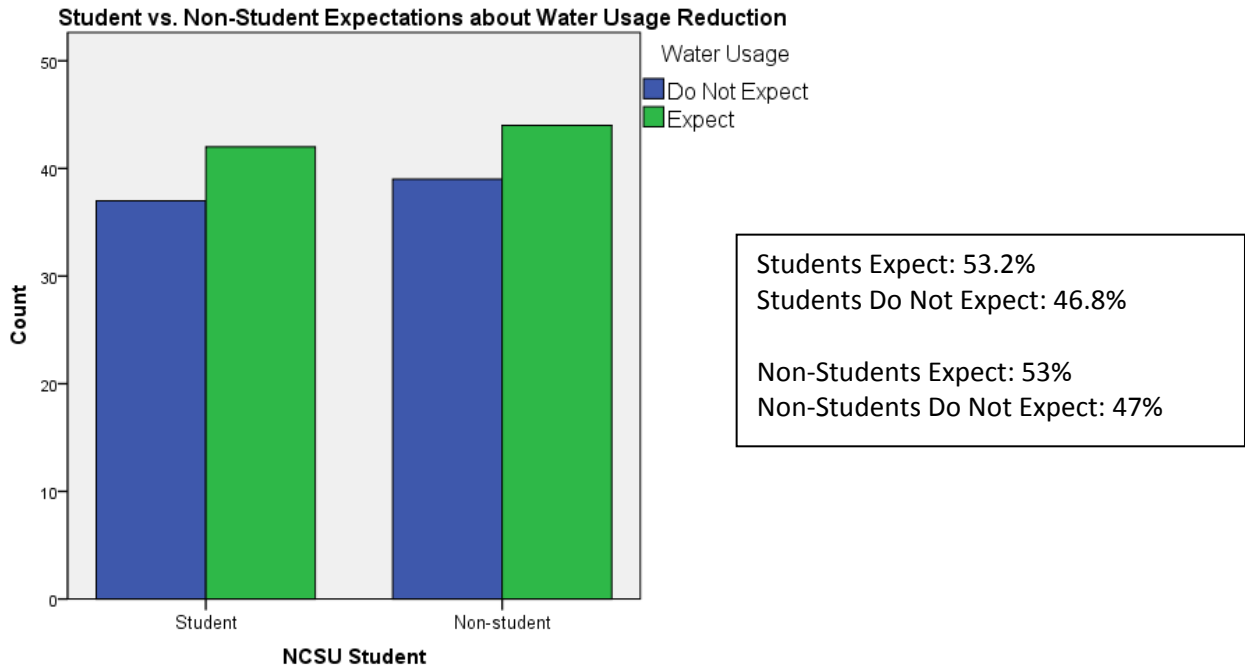
Non-Students Expect: 57.8%  
 Non-Students Do Not Expect: 42.2%

**Student vs. Non-Student Expectations about Carbon Emissions Reduction**

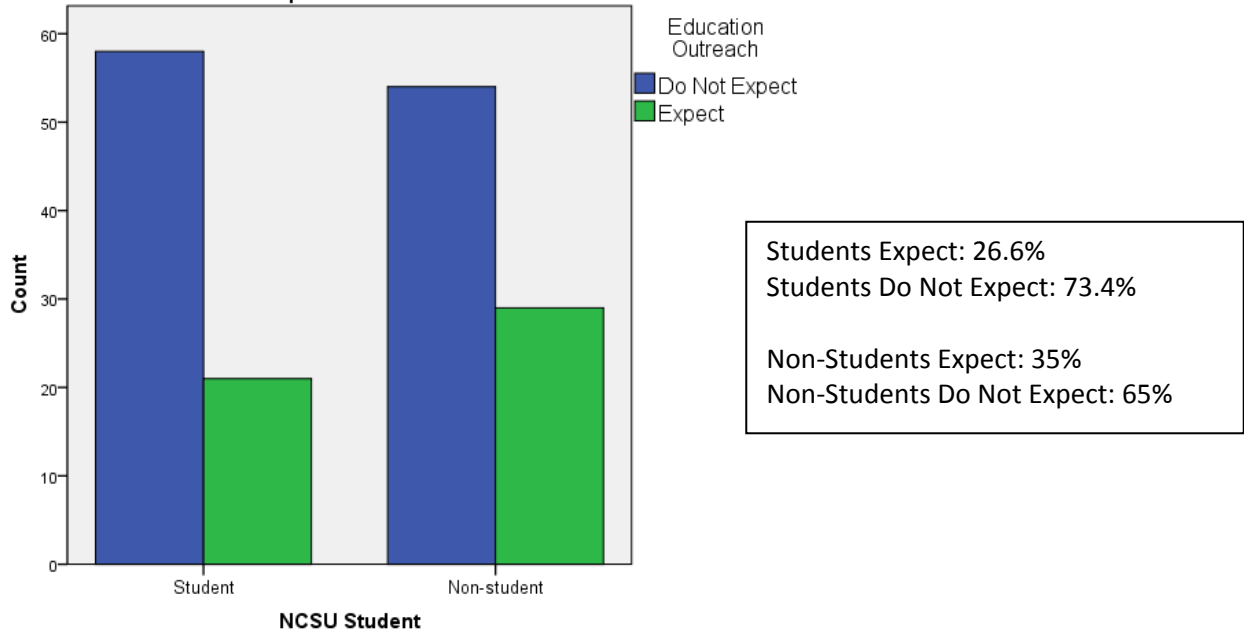


Students Expect: 21.5%  
 Students Do Not Expect: 78.5%

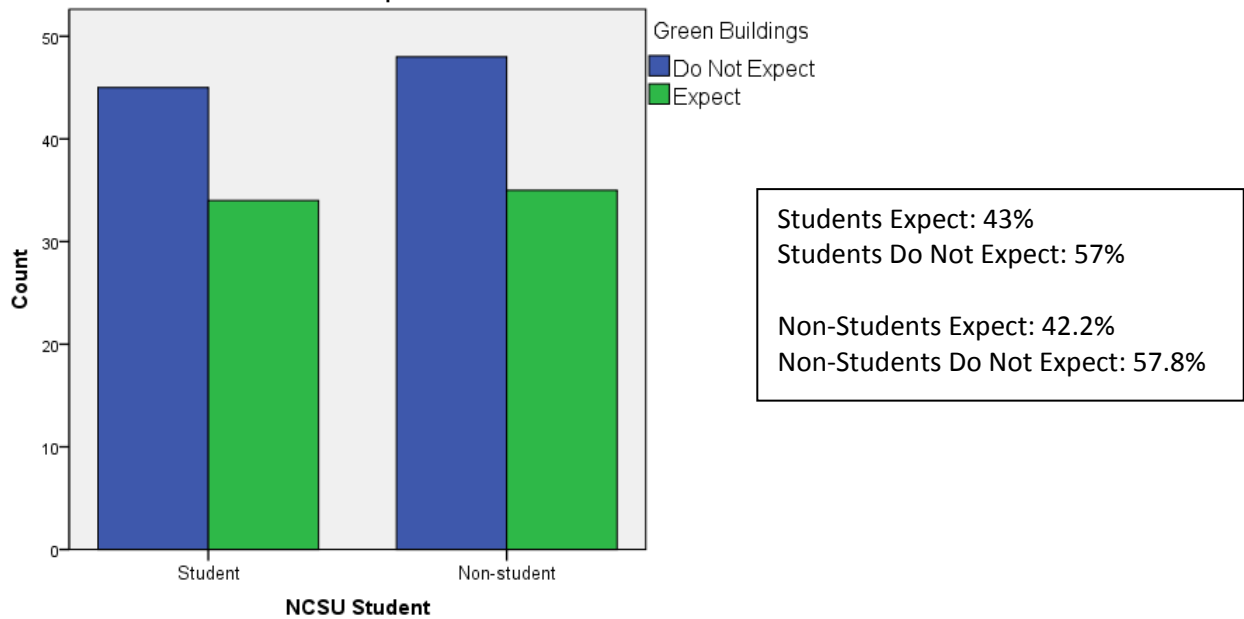
Non-Students Expect: 18.1%  
 Non-Students Do Not Expect: 81.9%



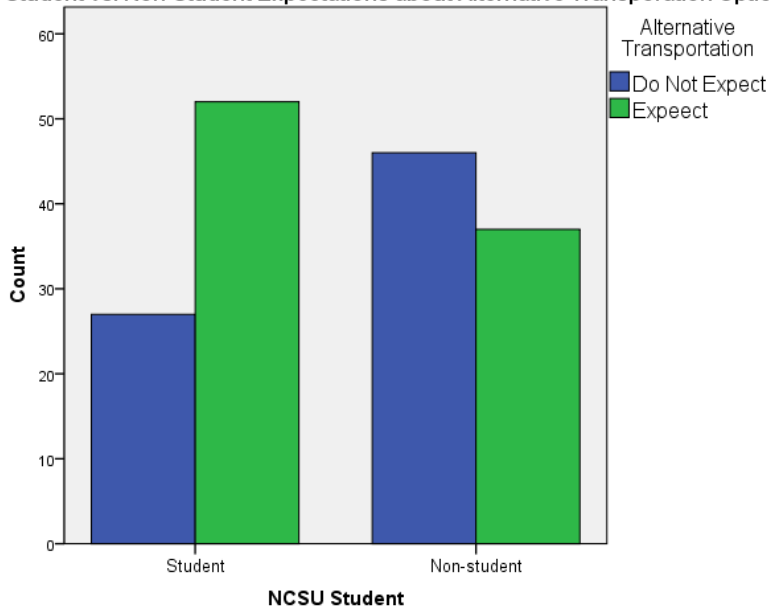
**Student vs. Non-Student Expectations about Environmental Education Outreach**



**Student vs. Non-Student Expectations about Commitment to Green Building and Operations**



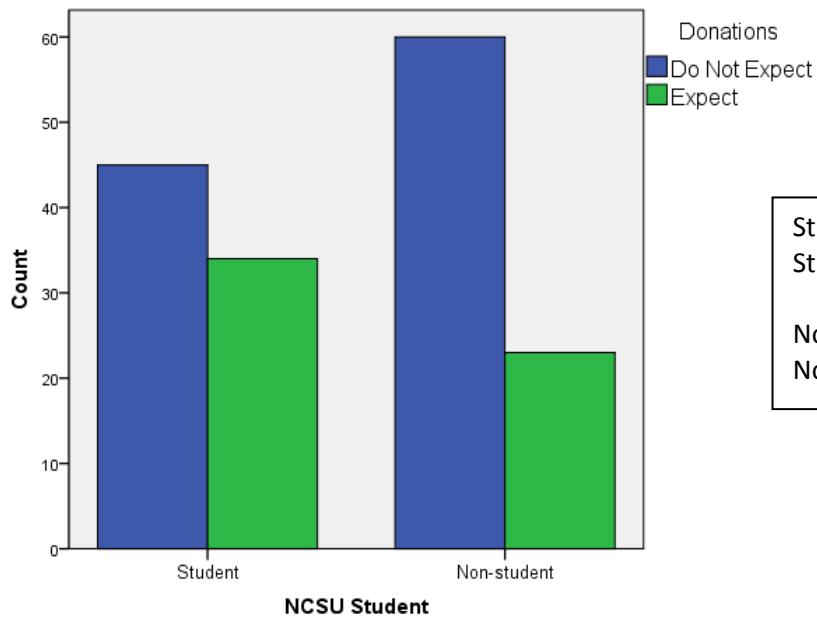
**Student vs. Non-Student Expectations about Alternative Transportation Options**



Students Expect: 65.8%  
 Students Do Not Expect: 34.2%

Non-Students Expect: 44.6%  
 Non-Students Do Not Expect: 55.4%

**Student vs. Non-Student Expectations about Donations to Campus Sustainability Efforts**



Students Expect: 43%  
 Students Do Not Expect: 57%

Non-Students Expect: 27.7%  
 Non-Students Do Not Expect: 72.3%



**Follow-Up Survey**  
**May 1-7, 2011**  
**(35 Total Responses – 51% response rate)**

**Item 1. Game Day Awareness of Actions**

**Did you visit the NC State Sustainability Table at the baseball game?**

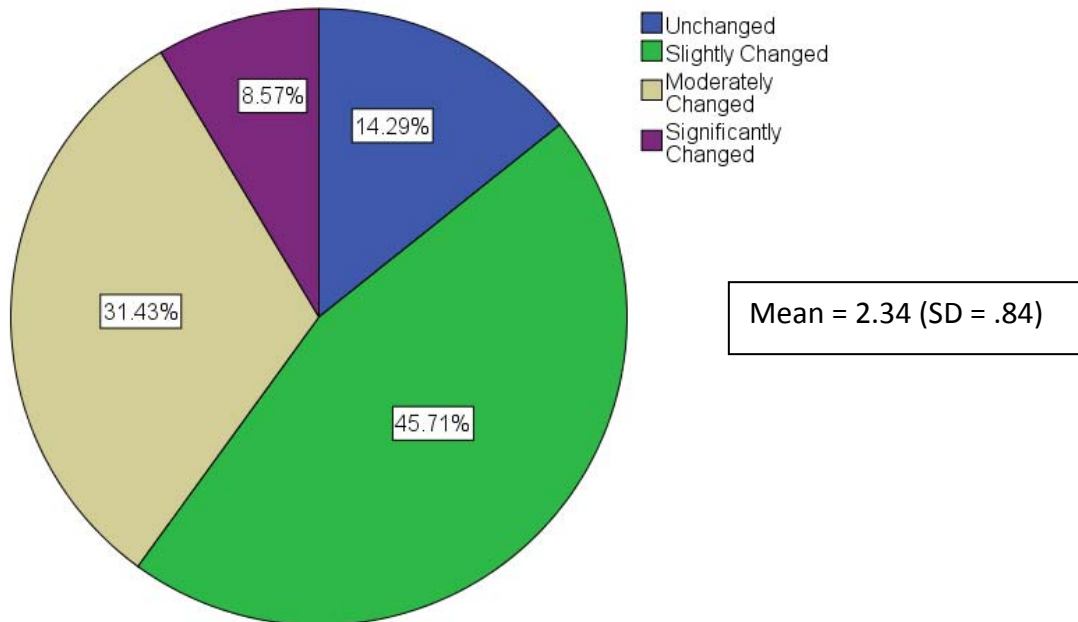
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	15	42.9	42.9	42.9
	1	20	57.1	57.1	100.0
	Total	35	100.0	100.0	

**Did you see the “Green” public service video shown during the 5th  
inning?**

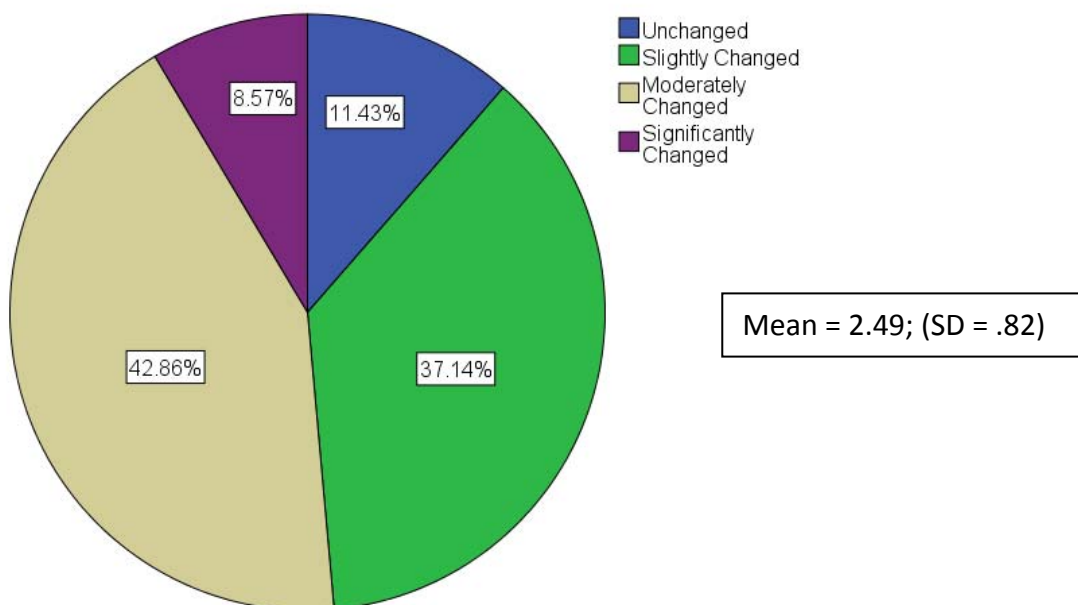
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	17	48.6	48.6	48.6
	1	18	51.4	51.4	100.0
	Total	35	100.0	100.0	

## Item 2. Post-Game Sustainability Items

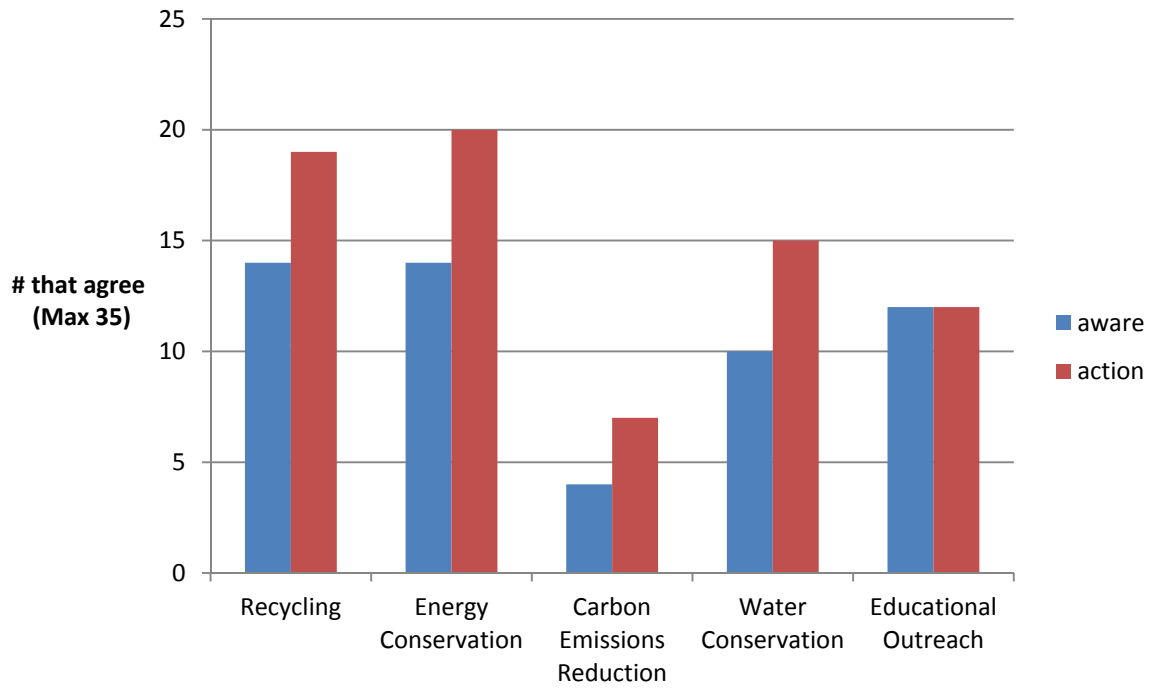
**Question 1:** After attending the baseball game, how would you rate your awareness of NCSU's environmental efforts compared to your awareness before the game? - Scale: unchanged (1), slightly changed (2), moderately changed (3), significantly changed (4)



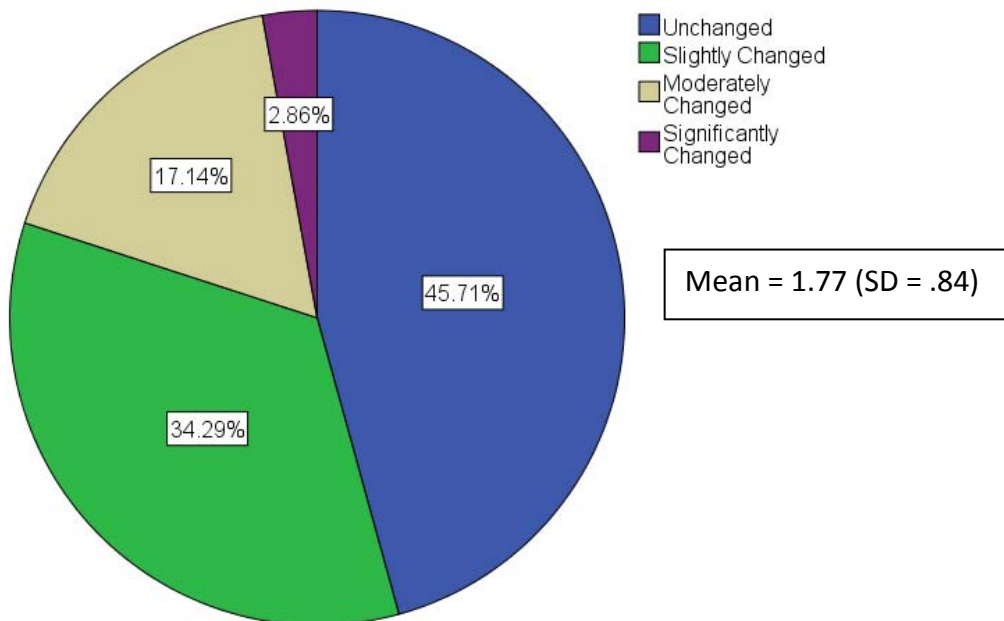
**Question 2:** After attending the baseball game, how would you rate your awareness of NC State Athletics Department's environmental efforts compared to your awareness before the game?



Question 3. Environmental\_efforts that respondents are more aware of (in blue) and will take action on (in blue).



Question 4. To what extent would you describe the change in your personal perspective of environmental issues since attending the baseball game?



Question 5. To what extent would you describe the change in your personal perspective of environmental actions undertaken by NC State since attending the baseball game?

