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Perceptions Towards Alcohol and Marijuana among Longwood University Students

 As Longwood students, we were required to attend a Marijuana and Alcohol informational session during our first year here on campus. This mandatory session helped students by raising awareness on the effects and potential dangers that marijuana and alcohol could bring to the body. Being such a big (and often controversial) topic among college campuses, our group decided that this would have been an interesting start to our Math 171 Survey Project. Our group initiated the project by finding a reliable source on the Polling Report website. Upon doing so, we found a poll that asked respondents, “Which do you think is more harmful to a person’s health: marijuana or using alcohol; or do you think either of them are harmful to a person’s health?” We thought this was a perfect question for college students, especially here at Longwood, since we were required to attend the informational session. Therefore, our next task was to go around campus asking Longwood students to respond to a survey asking which was more harmful: alcohol; marijuana; neither; if they were equally harmful; or if they were unsure.

 A categorical variable places a case into one of several groups or categories. With that being said, we concluded that our survey was a categorical study. The students were instructed to choose whether they thought marijuana or alcohol were more harmful, if at all, to the human body. We did not have any numerical values or arithmetic operations in our survey question or answers, disqualifying it as a quantitative variable. Since the population was all undergraduate Longwood students, we had to collect a random sample of 106 Longwood undergraduate students. Our group decided to split the surveys, and from there we all picked different locations throughout campus to collect the information for our data. We did this to be inclusive to all students on campus and reduce bias, rather than limiting data collection to locations some students may never frequent. Some possible bias in our data that we did believe we ran into were undercoverage, volunteer, and non-response bias. We believe that our data had undercoverage, because it is inevitable that all groups from all locations would not be surveyed. Our data also consisted of voluntary bias, as some of us actually had students come up to ask what our survey was about and filled them out. We also believed that our data contained non-response bias. When Ben and Cathleen went up to ask people to fill out the survey, some students were either too busy or heading to class; therefore, they refused to participate.

From our sample of 106 students, we each divided the survey and decided on where each of us would collect data. As stated earlier this was to spread out our data and results as much as possible. Cathleen was assigned to the Student Union, where she went on Monday, October 2nd, from 12:00-1:00pm to collect a total of 13 responses. She collected the last 13 responses the following day at Hiner Hall around 2:00-3:00pm. Sarah began collecting her first 13 sample responses at Chichester on Monday, October 2nd at 6:00pm. She then gathered the rest of her 13 responses inside Wheeler Hall on Tuesday from 9:00-10:00am. Brett obtained his 13 responses at Dorrill Dining Hall on Monday, October 2nd at 6:00pm. The next day he gathered the rest of his 13 responses between the freshmen dorms, Curry and Frazer, as well as the general area around the gym from 2:00-3:00pm. Ben finished with gathering his first response at Greenwood Library on Monday, October 2nd at 7:00pm. The next day he gathered one response in Ruffner around 10:30am, and later surveyed 14 respondents from Ruffner Fountain from 3:20-3:40pm. Last but not least, he collected the remaining 11 responses at Brock Commons on Wednesday, October 3rd from 10:10-10:40. Once we acquired all of our assigned responses, we then compiled all of the data which equated to be the 106 sample size that we were assigned. The raw data can be found in the table in appendix 1, and a breakdown of each class is found in the charts in appendix 2.

Longwood University consists of 4,574 undergraduate students. 68% of Longwood’s undergraduate students are female, while 32% of our students are male. Regarding class rank, 25.68% of Longwood University are freshmen, 21.03% are sophomores, 24.18% are juniors, and 29.12% are seniors. After we gathered all of our data together, we then continued to put the information onto a spreadsheet, which gave us an overview of all 106 responses, this is found in appendix 1. We then counted up all of the classes’ responses and then divided each class by the total population, being 106, to figure out the demographics and proportion of each class. From our responses, we had 25.47% of freshmen respond, 20.75% sophomores, 27.36% juniors, and 21.70% seniors. These percentages are close to the actual campus demographics, but are not completely the s

 After analyzing the demographics of our respondents, our group found that our sample can be used relatively well to approximate the population of all Longwood students. When comparing the percentage of freshmen surveyed to all of the freshmen at Longwood, we found that was only a slight difference of .21%. The difference in percentages among sophomores was was also slight, with only 1.28%. However, there were more notable differences among the upperclassman ranks. Compared to the 24.18% of juniors at Longwood University, only 27. 36% of juniors were included in our sample, leaving a 3.18% error. The seniors were the most underrepresented segment of the population. Out of the 106 respondents, 21.70% where seniors, compared to the 29.12% of seniors at Longwood University. This constituted a 7.42% difference, which lead us to believe that not enough seniors were participated in the survey. By the time our group finished collecting, graphing, and analyzing the data, we firmly believe that our survey was distributed in a fair and organized manner. Our group dispersed across campus at different dates and times, with the intent to focus on single areas where all of the students may not have frequented. Each student who participated in the survey signed the consent form, indicating that each was aware of our objective and our promise of anonymity. After each survey was finished, both the consent form and survey were placed into envelopes to protect that anonymity. Although voluntary and undercoverage bias existed in our survey, we realize that it is beyond the researcher’s control, and that our data approximated Longwood’s population fairly well.

Appendices:

1. Table of Raw Data

|  |  |  |  |
| --- | --- | --- | --- |
| Student Number | Answer to question | Gender | Class |
| 1 | Alcohol | Male | Freshman |
| 2 | Alcohol | Male | Freshman |
| 3 | Alcohol | Male | Freshman |
| 4 | Alcohol | Male | Freshman |
| 5 | Alcohol | Female | Freshman |
| 6 | Alcohol | Male | Freshman |
| 7 | Alcohol | Male | Freshman |
| 8 | Alcohol | Female | Freshman |
| 9 | Alcohol | Male | Freshman |
| 10 | Alcohol | Male | Freshman |
| 11 | Alcohol | Male | Freshman |
| 12 | Alcohol | Female | Freshman |
| 13 | Alcohol | Female | Freshman |
| 14 | Alcohol | Female | Freshman |
| 15 | Alcohol | Male | Freshman |
| 16 | Alcohol | Female | Freshman |
| 17 | Equally Harmful | Female | Freshman |
| 18 | Equally Harmful | Male | Freshman |
| 19 | Equally Harmful | Male | Freshman |
| 20 | Equally Harmful | Female | Freshman |
| 21 | Equally Harmful | Female | Freshman |
| 22 | Equally Harmful | Female | Freshman |
| 23 | Equally Harmful | Female | Freshman |
| 24 | Equally Harmful | Male | Freshman |
| 25 | Neither | Female | Freshman |
| 26 | Neither | Male | Freshman |
| 27 | Unsure | Male | Freshman |
| 28 | Unsure | Female | Freshman |
| 29 | Alcohol | Female | Sophomore |
| 30 | Alcohol | Female | Sophomore |
| 31 | Alcohol | Male | Sophomore |
| 32 | Alcohol | Male | Sophomore |
| 33 | Alcohol | Male | Sophomore |
| 34 | Alcohol | Female | Sophomore |
| 35 | Alcohol | Male | Sophomore |
| 36 | Alcohol | Male | Sophomore |
| 37 | Alcohol | Male | Sophomore |
| 38 | Alcohol | Male | Sophomore |
| 39 | Alcohol | Male | Sophomore |
| 40 | Equally Harmful | Female | Sophomore |
| 41 | Equally Harmful | Male | Sophomore |
| 42 | Equally Harmful | Female | Sophomore |
| 43 | Equally Harmful | Female | Sophomore |
| 44 | Equally Harmful | Female | Sophomore |
| 45 | Equally Harmful | Male | Sophomore |
| 46 | Marijuana | Male | Sophomore |
| 47 | Marijuana | Male | Sophomore |
| 48 | Marijuana | Male | Sophomore |
| 49 | Marijuana | Female | Sophomore |
| 50 | Marijuana | Male | Sophomore |
| 51 | Marijuana | Male | Sophomore |
| 52 | Neither | Female | Sophomore |
| 53 | Alcohol | Female | Junior |
| 54 | Alcohol | Female | Junior |
| 55 | Alcohol | Female | Junior |
| 56 | Alcohol | Male | Junior |
| 57 | Alcohol | Female | Junior |
| 58 | Alcohol | Female | Junior |
| 59 | Alcohol | Male | Junior |
| 60 | Alcohol | Female | Junior |
| 61 | Alcohol | Female | Junior |
| 62 | Alcohol | Female | Junior |
| 63 | Alcohol | Male | Junior |
| 64 | Alcohol | Female | Junior |
| 65 | Alcohol | Male | Junior |
| 66 | Alcohol | Female | Junior |
| 67 | Alcohol | Female | Junior |
| 68 | Alcohol | Female | Junior |
| 69 | Equally Harmful | Female | Junior |
| 70 | Equally Harmful | Male | Junior |
| 71 | Equally Harmful | Female | Junior |
| 72 | Equally Harmful | Male | Junior |
| 73 | Equally Harmful | Female | Junior |
| 74 | Equally Harmful | Female | Junior |
| 75 | Marijuana | Female | Junior |
| 76 | Marijuana | Male | Junior |
| 77 | Marijuana | Female | Junior |
| 78 | Marijuana | Male | Junior |
| 79 | Marijuana | Female | Junior |
| 80 | Marijuana | Male | Junior |
| 81 | Neither | Female | Junior |
| 82 | Neither | Male | Junior |
| 83 | Alcohol | Male | Senior |
| 84 | Alcohol | Male | Senior |
| 85 | Alcohol | Male | Senior |
| 86 | Alcohol | Female | Senior |
| 87 | Alcohol | Female | Senior |
| 88 | Alcohol | Male | Senior |
| 89 | Alcohol | Female | Senior |
| 90 | Alcohol | Male | Senior |
| 91 | Alcohol | Male | Senior |
| 92 | Alcohol | Female | Senior |
| 93 | Alcohol | Female | Senior |
| 94 | Alcohol | Female | Senior |
| 95 | Alcohol | Female | Senior |
| 96 | Alcohol | Male | Senior |
| 97 | Alcohol | Female | Senior |
| 98 | Alcohol | Female | Senior |
| 99 | Alcohol | Female | Senior |
| 100 | Alcohol | Female | Senior |
| 101 | Alcohol | Male | Senior |
| 102 | Equally Harmful | Female | Senior |
| 103 | Marijuana | Female | Senior |
| 104 | Neither | Male | Senior |
| 105 | Neither | Male | Senior |
| 106 | Neither | Female | Senior |

2. Charts of data for each class







