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## Student Activities Board Entertainment Survey

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**Client:** Student Activities Board

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### Executive Summary

A survey was sent out to students at Truman State University. The survey looked to help the Student Activities Board assess student's preferences regarding concerts, comedians, speakers, movies, and smaller events. Out of all the survey participants, the majority of them were female students (73.2%). It was found that most of the students taking the survey had either completed one year (26.1%), two years (27.2%), or three years (27.3%) at Truman. Results indicated 53.3% of students reside on campus while 45.0% of students live off campus.

Respondents were asked about their participation in SAB events. Results showed that the majority of students (50.2%) typically attend 1-2 events per semester. Statistical tests were done to compare students housing arrangements and the frequency of attending events. It was found that students living on-campus are more likely to go to a SAB event than students living off-campus. A statistical test was also done to compare year in school with the frequency of attending events. Results indicated that underclassmen are more likely to go to a SAB event than upperclassmen. Students were also asked about the effectiveness of certain advertising techniques. It was found that students living on-campus rank Poster, Chalk, and Stakes as being more effective, while students living off-campus find Social media significantly more useful. Reasons why students do not attend SAB events was also looked at. Results showed that academic responsibility was the most common reason (80.8%).

Students were asked about their top three preferences for the fall concert. The most popular artist was Nick Jonas (13.8%) followed by The All American Rejects (11.9%). Students also answered a question about their preferred genre. The results indicated

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that students are significantly more likely to attend a pop concert as opposed to a concert of any other genre. It was also found that students are significantly less likely to attend a country music concert than they are to attend a concert of any other genre. Respondents were also asked to indicate their preferred type of comedian. The most popular type of comedian was stand-up comedian, which 71.1% of students indicated as their preferred type. Students were then asked about their preferred type of speaker. Results indicated that the most popular type of speaker is TV/Movie star, which was chosen as one of the top two preferred type of speaker by 33.8% of respondents. Students were next asked to indicate which trending topic they would be interested in the SAB developing an event around. Respondents would be most interested in an event dedicated to politics (20.6%). Students were asked whether they prefer that the SAB offer performance based events or interactive events. A majority (66.1%) indicated that they preferred performance based events.

Students were asked about their preference of different evenings to attend an SAB speaker. Results indicated that students are more likely to attend a speaker event on a Friday or Saturday compared to the other days of the week. However, when just looking at Sunday through Thursday evenings, students would prefer to attend a speaker on a Thursday night. Similar results were found for a day to host an SAB film. Again students said that a Friday or Saturday would work best with their schedules. They also said that Thursday's would be better than Sunday through Wednesday. Students were also asked when they would like to attend a smaller scale event. It was found that Friday and Saturday are the best days to host an event.

Students were asked whether or not they would be interested in participating in a scavenger hunt. Results indicate that about half of the respondents were interested (50.6%) in the scavenger hunt while the others were not (49.4%). Those who were interested indicated that they were most interested in either a TV show themed scavenger hunt (29.5%), a Film themed scavenger hunt (27.2%) or a music themed scavenger hunt (25.5%).

Lastly, students were asked to leave comments about smaller scale events that SAB should return/bring back to campus. The top comments included having smaller scale events such as arts and crafts, carnivals, inflatables, bubble soccer, canvas painting, hot air balloon, trivia night, bringing in animals, Bingo, free food, and a magician.

## Introduction

In order to learn student's opinions regarding their preferences in different entertainment events brought to Truman State University, a survey was sent out to the student body. This survey looked to help the Student Activities Board assess student's preferences regarding concerts, comedians, speakers, movies, and smaller events. Note that the appendix table A2 provides a list of statistical tests used in this report along with a description of when to use each test.

The survey was active from April 4, 2016 through April 9, 2016. The clients sent students a link to this survey through [survey.truman.edu](http://survey.truman.edu). The link was also posted on Facebook. A total of 1,050 students responded to the survey.

## Demographics

Out of the 1,050 respondents, 73.2% were female, 24.3% were male, and 2.5% preferred not to respond. Students were also asked at the end of the Spring 2016 semester, how many years they would have completed at Truman State University. There were similar amounts of students who had completed one year (26.1%), two years (27.2%), and three years (27.3%). There were not many students who had either completed four or more years. Results can be seen in figure 1 below.

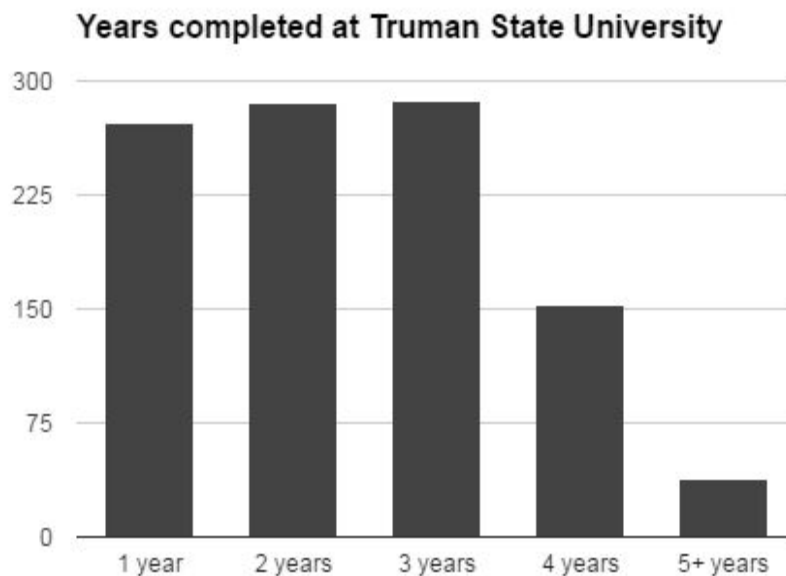
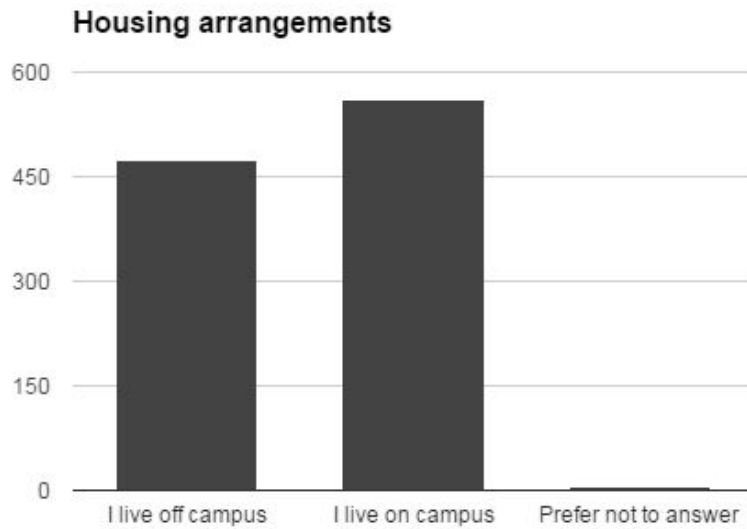


Figure 1: Years completed at Truman State University

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Respondents were asked about whether they live on or off campus. Results indicated 53.3% of students reside on campus while 45.0% of students live off campus. The rest of the respondents preferred not to respond. Results can be seen below in figure 2.



**Figure 2: Respondents housing arrangements**

## Student Involvement

The majority of students (50.2%) typically attend 1-2 events per semester. Two Chi-square Tests for Association were carried out to see if there is any connection between (1) Housing arrangement and the frequency of attending events and (2) Year in school and the frequency of attending events. Both tests yield a significant result, with p-value = 0.018 for the first test and p-value = 0.02 for the second one. The results indicate that Housing and Year in school can influence the decision to attend events. Specifically, students living on-campus are more likely to go to a SAB event than students living off-campus, and lower-classmen are more likely to go to a SAB event than upperclassmen. Results can be seen in figure 3 and 4 below.

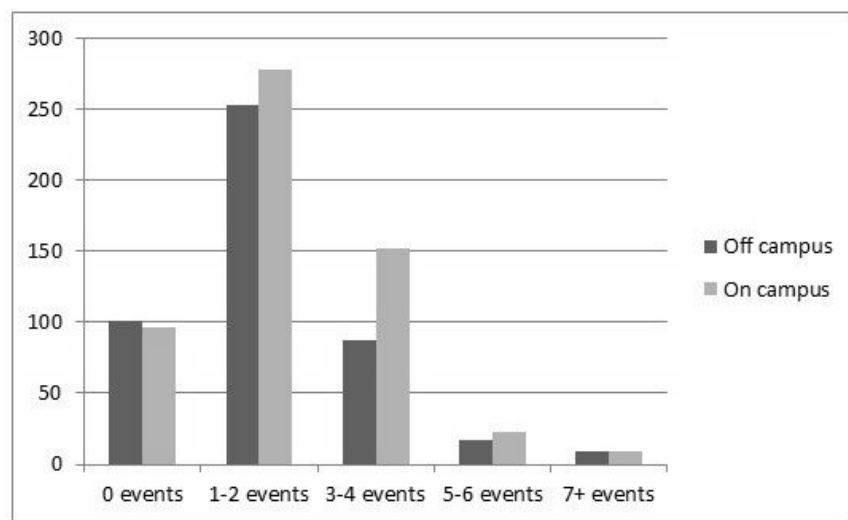


Figure 3: Housing arrangement versus frequency of attending events

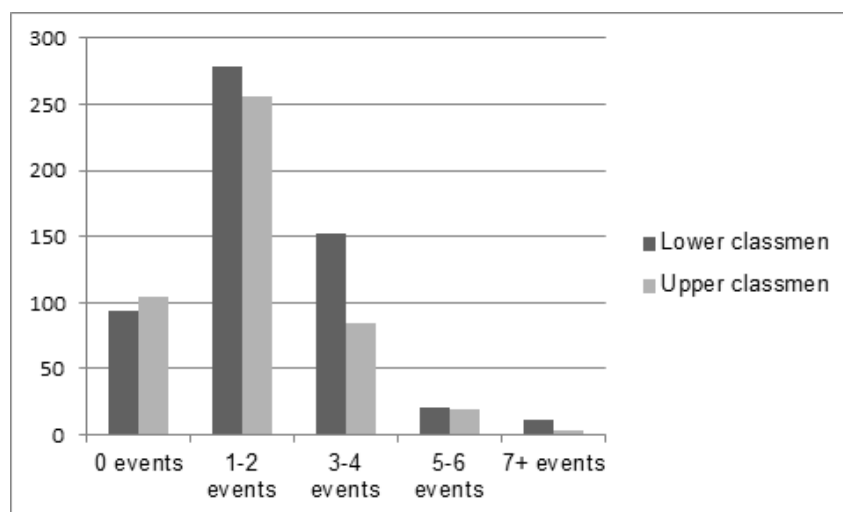
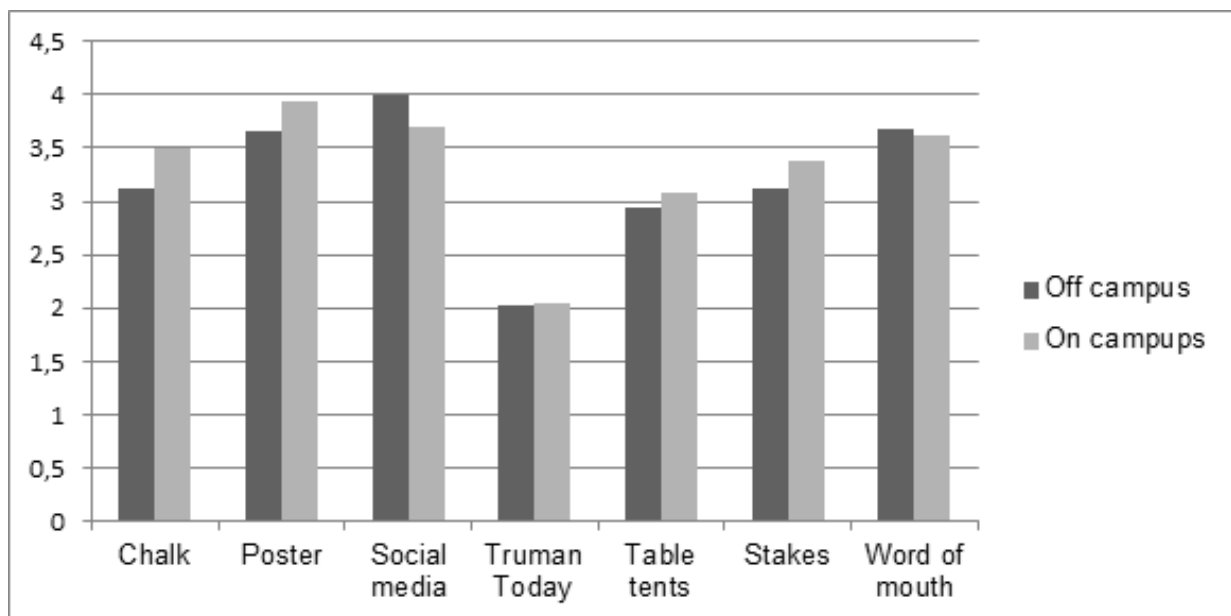


Figure 4: Year in school versus number of events attended

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To further investigate what factors may influence students' involvement, the methods of advertisement were taken into consideration. Respondents were asked to rank the effectiveness of each method on the scale from 1 to 5. A Kruskal-Wallis test was carried out to determine if there is a difference between the types of advertising. A p-value  $< 0.0005$  indicates that there is at least one method that is significantly different from the others. Following up with a Mann Whitney test between each pair of methods, there is sufficient evidence to say that Posters and Social media are the two most effective means of advertising. It is important to note that except for Truman Today, Table tents, and Word of mouth, there is an interaction effect between how students rank the effectiveness of the other advertising methods and Housing arrangements. Specifically, the result of Mann Whitney test ( $p < 0.005$ ) indicates that students living on-campus rank Poster, Chalk, and Stakes as being more effective, while students living off-campus find Social media significantly more useful. The graph below (figure 5) shows the ranking of methods as responded by the two different groups of Housing arrangement.



**Figure 5: Ranking of advertisement techniques versus housing arrangements**

Respondents were asked the reasons for not attending SAB events. Academic responsibility is the most common reason, with 80.8% of respondents indicating this as the primary reason preventing them from going to an SAB event. Unawareness of the event is the least common reason, accounting for only 36.5%.

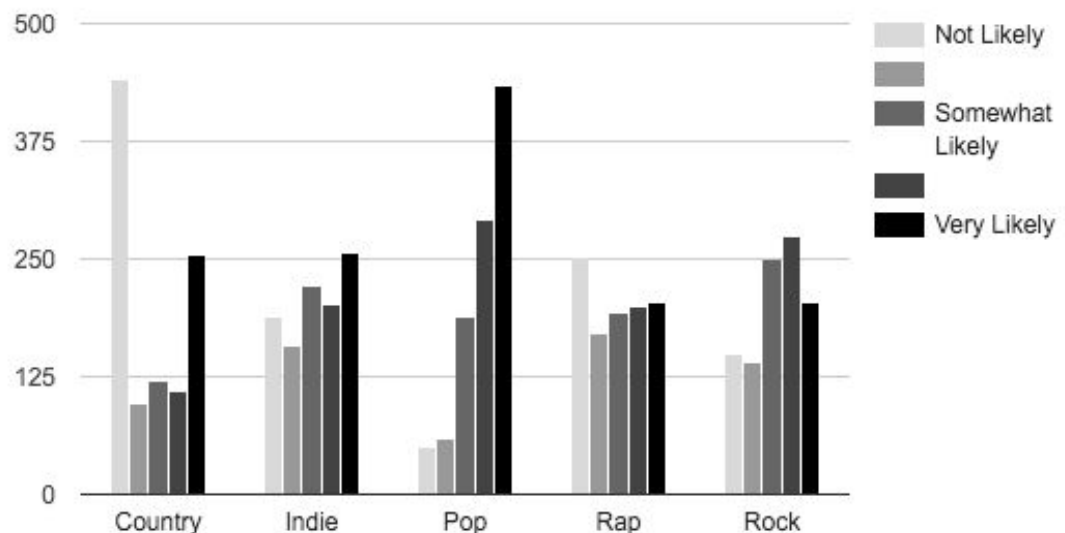
A Mann Whitney test comparing the underclassmen with the upperclassmen yielded a p-value of 0.04, indicating that underclassmen are more influenced by academic responsibility. However, an overall Chi-square Test for Association shows no significant relationship between Year at school and Reasons for not attending events. A bar graph of result is shown below (figure 6).



**Figure 6: Reasons for not attending SAB events**

### Concerts

Respondents were asked to rate how likely they were to attend a concert in several genres from not likely (1) to very likely (5). A Kruskal-Wallis test was run in order to compare students' likelihood of attending concerts of different genres. Running the test resulted in a p-value  $< 0.0005$  indicating that there is a difference in how likely students are to attend concerts of at least one genre. As a follow up to the Kruskal-Wallis test Mann-Whitney tests were run to see which genres were significantly more or less popular than others. Comparing pop music to each other genre yields a p-value  $< .0005$  for each combination. The very small p-value indicates that students are significantly more likely to attend a pop concert as opposed to a concert of any other genre. Comparisons were also run looking at country music and the result of each test was a p-value  $< .0005$ . It has been shown that students are significantly less likely to attend a country music concert than they are to attend a concert of any other genre. A graph showing student responses is shown below (figure 7).



**Figure 7: Likeliness of attending different musical genres**

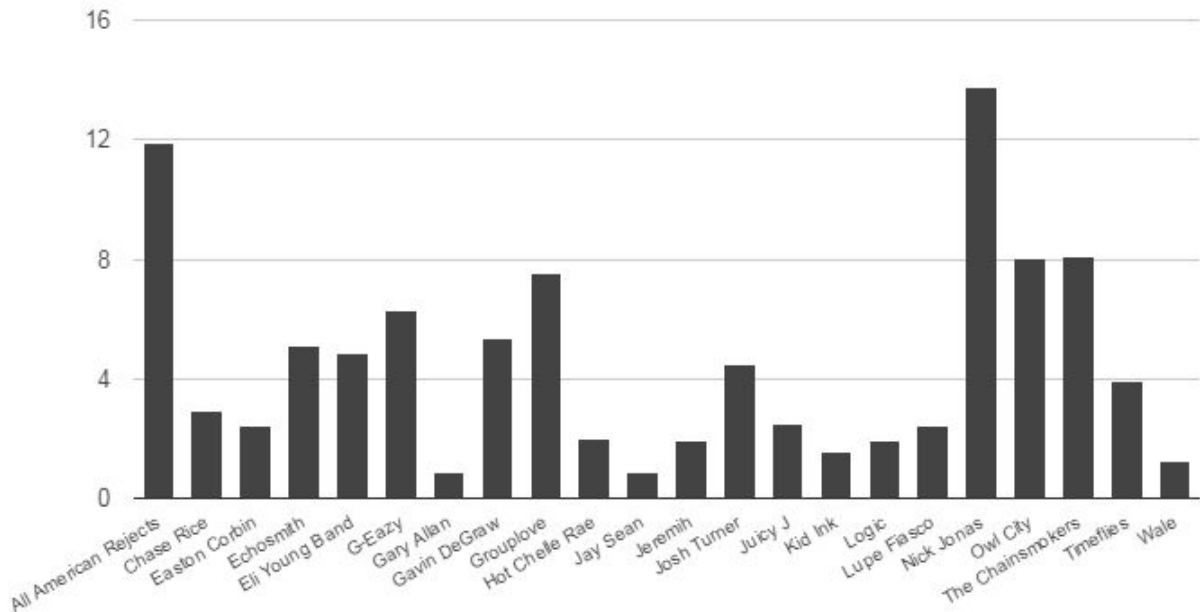
Respondents were then presented with a list of artists and were asked to indicate their top three choices for the fall concert. In order to determine if any one artist had significantly more support than the others, a Chi-square goodness of fit of test was run on the number of votes each artist received. Running the test resulted in a p-value  $< .0005$ . A p-value this small provides evidence that at least one artist has significantly



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more students who indicate that artist as one of their top choices. The most popular artist was Nick Jonas who was chosen as one of the top three artists for 13.8% of students. The next most popular artists were All American Rejects (11.9%), Owl City (8.1%), and The Chainsmokers (8.1%). The least popular artists with only 0.9% of students choosing them among their top three were Jay Sean and Gary Allen. A graph showing the relative frequencies for each artist is shown below (figure 8).

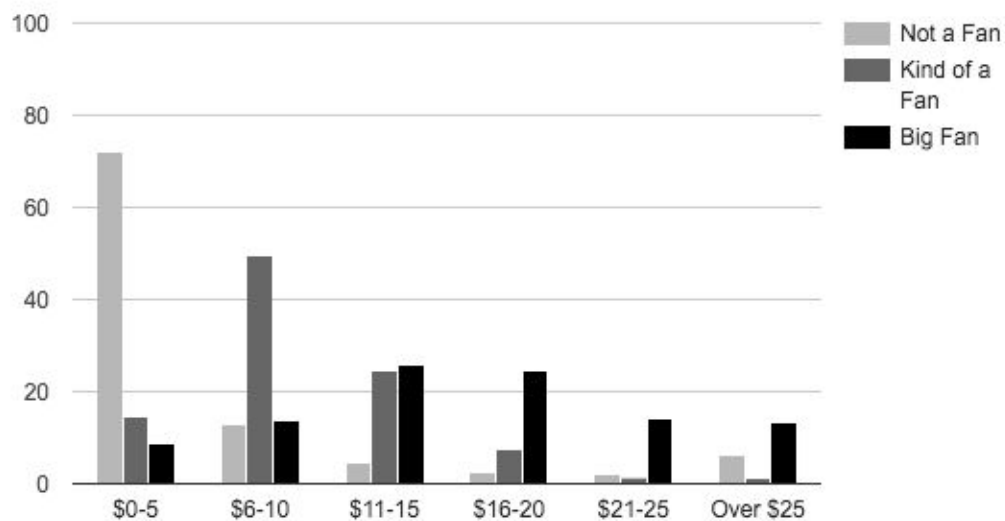


**Figure 8: Relative frequencies for each artist**

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Respondents were also asked to indicate how much money they would be willing to pay for artists that they are not a fan of, kind of a fan of, and a big fan of. A Chi-square test of association was conducted in order to see if there is any relationship between how big a fan a person is of the artist and how much they would be willing to pay for a concert. The result of running the test showed that there is significant evidence ( $p\text{-value} < .0005$ ) of an association between how big a fan a person is of the artist and how much they would be willing to pay for a concert. If they were not a fan of the artist 71% of students indicated that they would be willing to pay \$0-\$5. If they were kind of a fan 49.5% of students indicated that they would pay \$6-10 for a concert. If they were a big fan of the artist 25.8% of students would be willing to pay \$11-\$15 and 24.7% would be willing to pay \$16-\$20 for a concert. A graph of results is shown below (figure 9).



**Figure 9: Amount a person is willing to pay for a concert based on how big of a fan they are**

### Comedians and Films

Respondents were then presented different types of comedians and were asked to indicate which they preferred. Students were provided the choices of stand up, improv, and musical comedians. In order to determine if any type of comedian had significantly more support than the others a Chi-square goodness of fit of test was run on the number of students who picked each type. Running the test resulted in a p-value  $<.0005$ . This small p-value indicates that there is preference for at least one type of comedian over other types. The most popular type of comedian was stand-up comedian which 71.1% of students indicated as their preferred type. The least popular type of comedian was musical comedian which only 10.8% of students indicated as their top choice of comedian. A graph of results is shown below (figure 10).

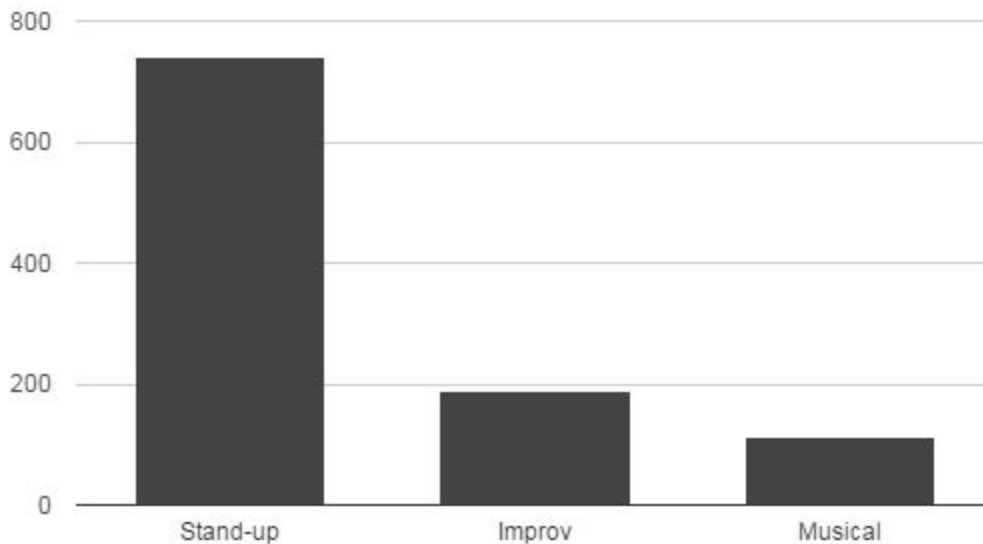
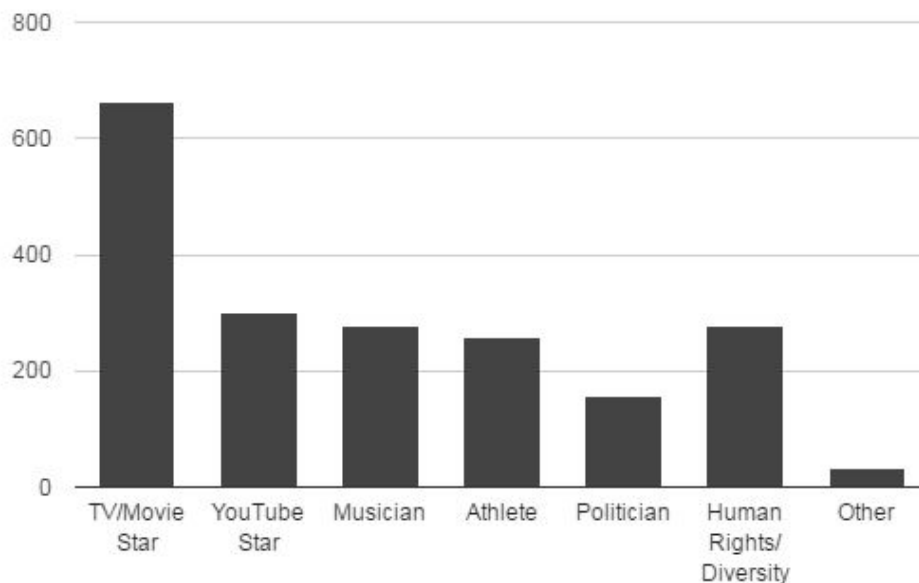


Figure 10: preferred type of comedian

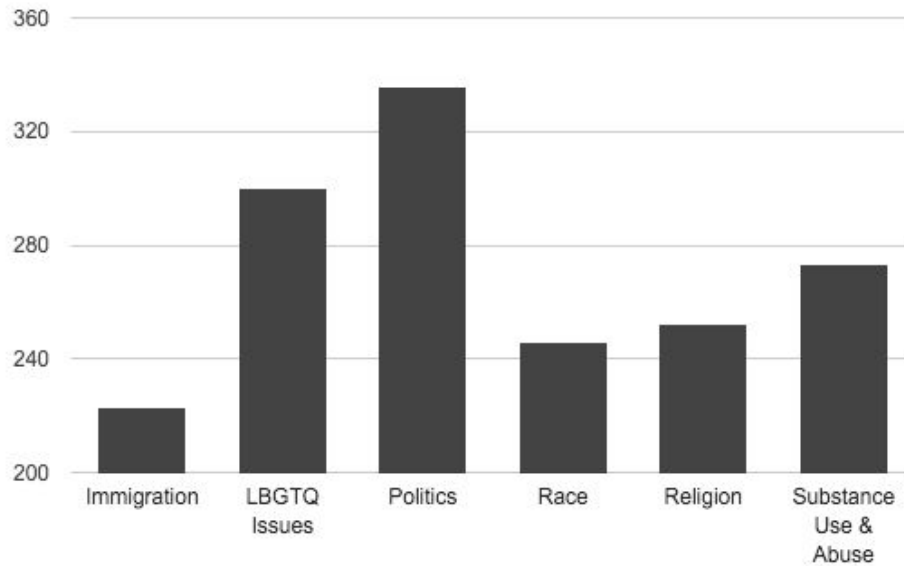
### Special Events

Respondents were then presented different types of speakers and were asked to indicate which they preferred. Students were allowed to pick up to two types of speakers. In order to determine if any type of speaker had significantly more support than the others a Chi-square goodness of fit of test was run on the number of students who picked each type. Running the test resulted in a p-value  $<.0005$ . As this p-value is very small it indicates that there is preference for at least one type of speaker over other types. The most popular type of speaker is TV/Movie star which was chosen as one of the top two preferred type of speaker by 33.8% of respondents. The least popular type of speaker with 7.9% of respondents choosing this type as one of their top two choices was political speaker. A graph of results is shown below (Figure 11).



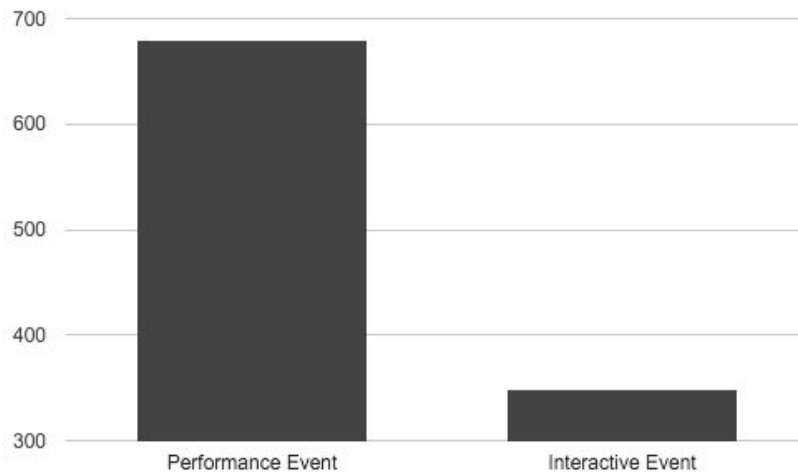
**Figure 11: Preferred type of speaker**

Respondents were next asked to indicate which trending topic they would be interested in the SAB developing an event around. In order to determine if any trending had significantly more support than the others a Chi-square goodness of fit of test was run on the number of students who picked each topic. Running the test resulted in a p-value  $<.0005$ . This small p-value indicates that there is preference for at least one trending over other topics. Students indicated that they would be most interested in an event dedicated to politics (20.6%). The topic that the fewest number of students indicated that they would be interested in was immigration (13.7%). A graph of results is shown below (figure 12).



**Figure 12: Interest in attending different trending events**

Respondents were asked whether they prefer that the SAB offer performance based events or interactive events. A majority (66.1%) indicated that they preferred performance based events. A graph of the results can be seen in figure 13.



**Figure 13: Preference in interactive versus performance type events**

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Respondents were asked how likely they were to attend a SAB speaker on different evenings during the week. A Kruskal Wallis test was run to determine if there was a significant difference between the likeliness of students attending events on different evenings during the week. Running the test yielded a p-value  $<.0005$ . Therefore, there is sufficient evidence to say that there is at least one difference between the evenings. However, in order to understand which evenings are different from one another, one must run a follow-up test.

Therefore, a Mann Whitney test was run. Running different combinations of the evenings provided the following results. When comparing a Friday or Saturday night to a Sunday through Thursday night, a p-value  $<.005$  was given for every combination. Since the p-value is so small, it may be concluded that students are more likely to attend a speaker event on a Friday or Saturday compared to the other days of the week. However, there was not a sufficient statistical evidence to say that there was a difference in how likely students are to attend the speaker on Friday versus Saturday night. When comparing combinations of attending a speaker on a Thursday versus a Sunday through Wednesday night, a p-value  $<.005$  was given. Therefore, since the p-value is so small, one can conclude that students are more likely to attend a speaker on a Thursday compared to a Sunday through Wednesday. A graph of the results can be found below in figure 14.

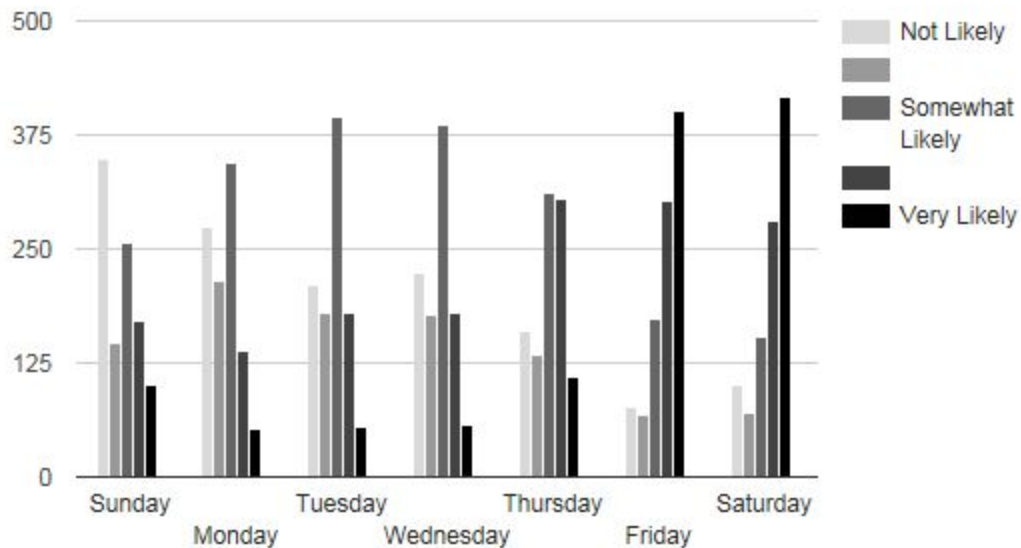


Figure 14: Evening preference for attending a speaker

### Productions

Respondents were asked how likely they were to attend a SAB film on different days of the week. In order to determine if there was a statistical difference between the likeliness of students attending SAB films during the week, a Kruskal Wallis test was run. Running the test yielded a p-value  $<.0005$ . Therefore, there is sufficient statistical evidence to say that there is at least one difference between the days of the week. However, in order to understand which days are different from one another, one must run a follow-up test.

A Mann Whitney test was run as the follow-up test. Different combinations of the days of the week were run. When comparing combinations of attending a film on a Thursday versus a Sunday through Wednesday, a p-value  $<.005$  was given. Therefore, since the p-value is so small, one can conclude that students are more likely to attend an event on a Thursday compared to a Sunday through Wednesday. However, when comparing attending a film on a Sunday through Thursday versus a Friday or Saturday, students prefer to see a film on a Friday or Saturday. This was concluded based on the p-value being  $<.005$ . It is important to note that there was not sufficient statistical evidence to say that there was a difference in how likely students are to attend the film on Friday or Saturday. A graph of the results can be found below in figure 15.

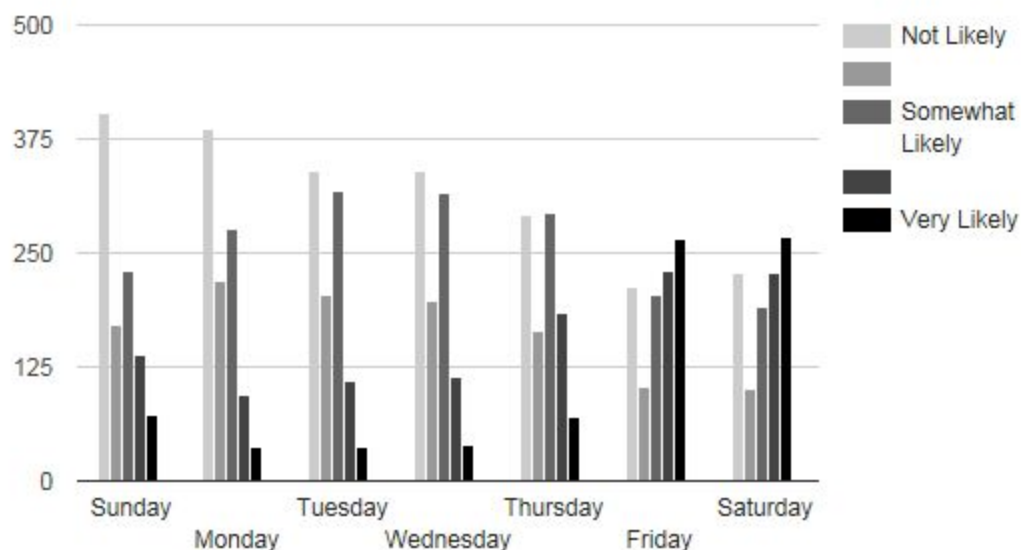


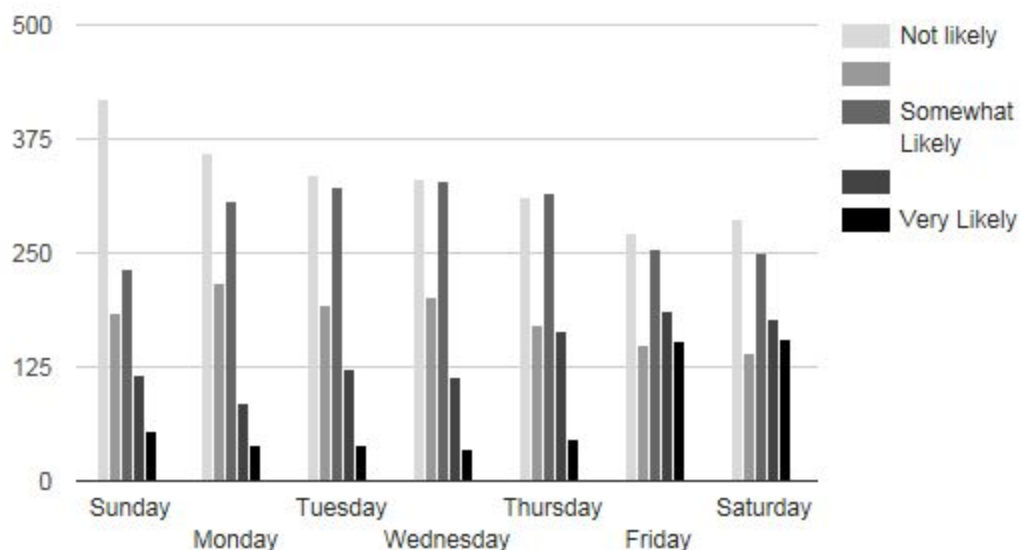
Figure 15: Preference in days to attend a SAB film

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Respondents were asked how likely they were to attend a smaller scale event (trivia, bingo, etc.) on the different days of the week. In order to determine if there was a statistical difference between the likeliness of students to attend smaller scale events during the week, a Kruskal Wallis test was run. Running the test yielded a p-value  $<.0005$ . Therefore, there is sufficient statistical evidence to say that there is at least one difference between the days of the week. However, in order to understand which days are different from one another, one must run a follow-up test.

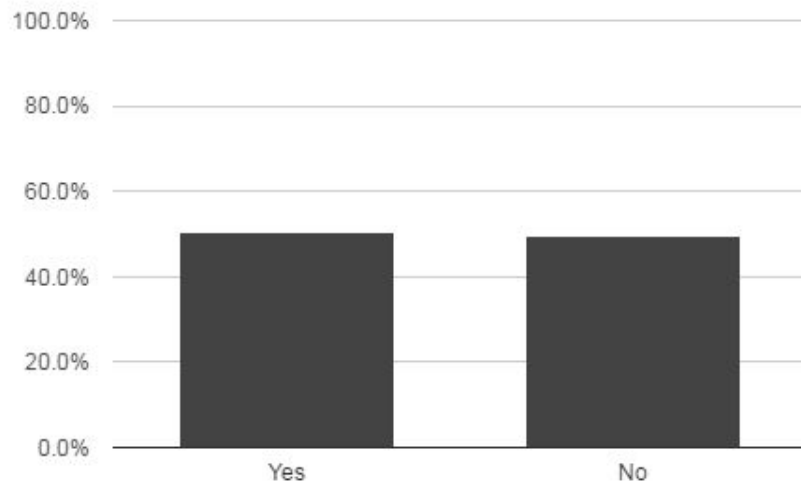
A Mann Whitney test was run as the follow-up test. Different combinations of the days of the week were considered. When comparing attending a smaller scale event on a Sunday through Thursday versus a Friday or Saturday, students prefer to attend an event on a Friday or Saturday. This was concluded based on the p-value being  $<.005$ . It is important to note that there was not sufficient statistical evidence to say that there was a difference in how likely students are to attend the event on Friday or Saturday. A graph of the results can be found below in figure 16.



**Figure 16: Preference in days to attend a SAB smaller scale event**

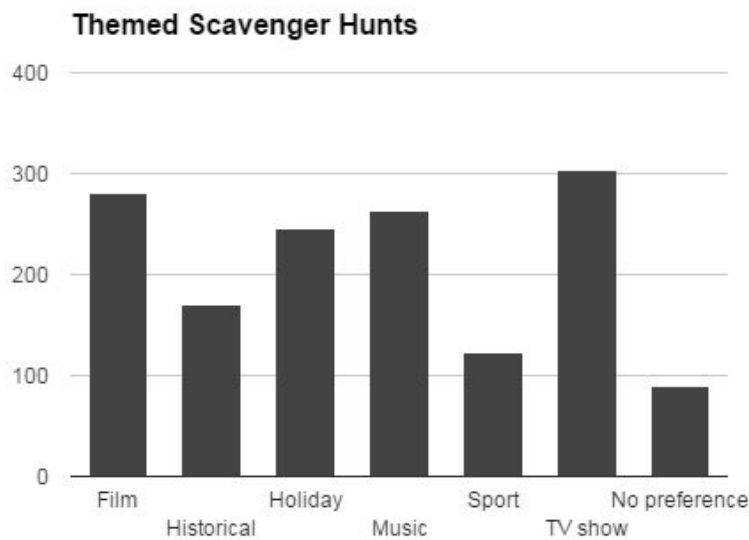
Students were asked whether or not they would be interested in participating in a scavenger hunt. Results indicate that about half of the respondents are interested (50.6%) in the scavenger hunt while the others are not (49.4%). Results can be seen in the figure below (figure 17).





**Figure 17: Interest in participating in a scavenger hunt**

Respondents who said that they were interested in the scavenger hunt were then asked about their preferences in a theme. Students were most interested in either a TV show themed scavenger hunt (29.5%), a Film themed scavenger hunt (27.2%) or a music themed scavenger hunt (25.5%). Students were the least interested in a sports themed scavenger hunt (11.9%). Results can be found in figure 18.



**Figure 18: Preferences for a themed scavenger hunt**