Where art thou, students:
Increasing attendance at on-campus cultural events

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Executive Summary

What type of pricing and event date information must be present on posters advertising on-campus arts and culture events to make them more appealing to students and to increase the likelihood of their attendance? We hypothesized that posters with "student price" stickers and advertisement of weekend events would be more appealing to students than posters without price information or with weekday events. We also hypothesized that first year students would rate the event as more appealing than upper year students. To test this, we surveyed 217 UBC students using a modified poster advertising a theatre production on campus. This sample was divided into four conditions based on the poster they were shown: a poster with a "student price" sticker, a poster with no price information, a poster with weekdays listed, and a poster with weekends listed. We found no significant results between posters with or without price stickers or between the advertised dates of the events, and no significant results were found between year of study and event appeal. However, significant results were found when analysing students' faculty, gender, and previous event attendance in relation to their ratings of the event's appeal.

Research Question and Hypothesis

Numerous events take place in the University of British Columbia's arts and culture district every month; and though these events can provide students with rich cultural and artistic experiences, UBC Arts and Culture has noticed a distinct lack of student attendance. Because arts and culture events are advertised to students primarily through posters, an examination of their effectiveness was deemed necessary.

By examining past event posters and working closely with our client, we formulated the following question: What type of information must be present on posters advertising on-campus arts and culture events to make them more appealing to students and to increase the likelihood of their attendance?

Because previous research has indicated that the ticket price of arts and culture events can act as a barrier to attendance (Kolb 1997; Snipes & Ingram 2007), and that the day of the week can have a strong impact on a student's willingness to attend, (Ragsdale et al., 2011); we hypothesized that posters with a special "student price" sticker would result in higher event interest and likelihood of attending (together constituting "event appeal") than posters that show no pricing information, in line with current Arts and Culture advertising practices. We also predicted that posters that advertised weekend events would be more appealing than those that advertised events during the week. Given Mehdinezhad's (2011) findings that first year university students score higher than their peers on five different scales of university engagement, we predicted that first year students would find the event more appealing than their older peers, regardless of condition.

Methods

Participants

Our study engaged 235 participants, all of whom were UBC students. However, 18 responses were incomplete, meaning students agreed to participate but did not take any further actions, invalidating the survey. We were left with a total of 217 valid responses. Of the 217 participants, 141 were female. Participants were recruited through two means: online through social media and in-person from common areas on campus.

Conditions

Our study utilized a between-subjects design with a total of four conditions: the presence or absence of a "discounted student price" sticker on the poster and the advertised date of the event on the poster (weekday or weekend). One poster was used for each condition; the posters were identical except for the manipulated information. Qualtrics, the survey software, randomly assigned participants to each condition; however because some survey results were invalid, the assignment was not completely even. (See Appendix A.)

Measures

To assess the impact of the independent variables, namely price information and day of the event, participants completed a short survey after viewing the poster. The survey was identical for all conditions and consisted of two sets of four questions, each assessing the dependent variables: "event interest" and "likelihood of attending." Participants answered these sets of questions using a 1-4 Likert Scale that ranged from "Strongly Disagree" to "Strongly Agree." In each set of questions, one was reverse-coded to ensure participants were paying attention. The survey also included four demographic questions: gender, year of study, faculty, and previous

attendance at an arts and culture event on campus. We created our own survey using Qualtrics software to ensure applicability to our client's needs. (Appendix B).

To assess the validity of our questions, we ran a pilot study with ten participants. All questions were significantly positively correlated to each other within "event interest" and "likelihood of attending" (Appendix C).

Procedure

The in-person recruitment took place on campus in the Nest, Woodward, IKLB, ESC, Henry Angus, IONA and in CIRS. In-person recruitment was conducted at various times throughout the school day (when students were likely to be in each building) from March 4 - 22, 2017. A complete schedule of recruitment can be found in Appendix D. Participants completed the survey on the researcher's laptop; researchers stood well away from them in an attempt to reduce the impact of the Hawthorne Effect. Online participants were recruited through posts in UBC groups on social media, also from March 4 - 22, 2017. Participants completed the survey online regardless of the method of their recruitment.

Participants read a consent form before completing the study. After agreeing to participate, Qualtrics randomly assigned participants to one of the four conditions and participants viewed the corresponding poster. Participants were instructed to "use this event poster to answer the questions below." They then completed the demographic questions and the "event interest" and "likelihood of attending" questions. Questions were counterbalanced to ensure there were no order effects. The survey included only twelve questions to be respectful of students' time and in order to make it easier to recruit busy students: the survey took less than two minutes to complete. Participants were debriefed with the study purpose and with correct event information after answering the survey.

Results

Participants used a 1-4 Likert Scale to assess their interest in and likelihood of attending an arts and culture event at UBC. Responding with a "1" indicated being strongly uninterested or highly unlikely to attend; whereas responding with a "4" indicated being strongly interested and highly likely to attend. Across all conditions, "event interest" had a mean of M =2.63, SD = 0.12 and "likelihood of attending" had a mean of M = 2.15, SD = 0.17.

An independent samples t-test revealed that "event interest" scores in the student price condition (M = 2.47, SD = 0.90) were not significantly different from "event interest" scores in the no price condition (M = 2.61, SD = 0.75), $t(106) = -0.90$, $p = .37$. Moreover, "likelihood of attending" scores in the student price condition (M = 1.98, SD = 0.79) were not significantly different from "likelihood of attending" scores in the no price condition (M = 2.18, SD = 0.80), $t(106) = -1.27$, p =.21. Similarly, an independent samples t-test revealed that "event interest" scores in the weekend condition (M = 2.57, SD = 0.84) were not significantly different from scores of participants in the weekday condition (M = 2.53, SD = 0.90), $t(107) = 0.28$, $p = .78$. "Likelihood of attending" scores in the weekend condition (M = 2.15, SD = 0.92) were also not significantly different from scores of the weekday condition (M = 1.98, SD = 0.85), $t(107) = 0.98$, $p = .33$.

An ANOVA revealed no significant difference between year of study and scores on event interest and likelihood. However, there was a significant positive correlation between year of study and event interest, $r(215) = .21$, $p < .002$ and likelihood of attending event $r(215) = .13$, $p < .05$.

We also assessed demographic data beyond our original hypotheses in order to provide our client with more useful information. An ANOVA revealed a significant difference between gender and event interest, $F(2, 214) = 6.30$, $p = .002$. Post hoc comparisons using Tukey indicated that females ($M = 2.65$, $SD = 0.79$) gave significantly higher scores than males ($M = 2.23$, $SD = 0.84$). Another ANOVA also revealed a significant difference between gender and likelihood of attending the event, $F(2, 214) = 5.74$, $p = .004$. Post hoc comparisons using Tukey indicated that females' scores ($M = 2.21$, $SD = 0.80$) were significantly higher than males' scores ($M = 1.81$, $SD = 0.87$).

We asked participants if they had ever attended an arts and culture event at UBC and found that 125 participants had attended one or more. However, 35 participants had never attended and were not interested. Fifty-seven indicated they had never attended but were interested. An ANOVA revealed a significant difference between previous attendance and event appeal $F(4, 212) = 13.5$, $p < .001$. Post hoc comparisons using Tukey revealed that participants who had attended an event either 1-2 times, 3-4 times, or 5 or more times or who had never attended but were interested ($M = 2.69$, $SD = 0.77$; $M = 2.70$, $SD = 0.88$; $M = 3.13$, $SD = 0.61$; $M = 2.53$, $SD = 0.73$) had higher scores on event appeal than those who had never attended and were not interested ($M = 1.77$, $SD = .73$). Moreover, those who had attended 5 or more times ($M = 3.13$, $SD = 0.61$) had significantly higher scores than those who had not attended but were interested ($M = 2.53$, $SD = 0.73$).

An ANOVA revealed a significant difference between faculty and event interest, $F(8, 208) = 5.35$, $p = .001$. Post hoc comparisons using Tukey revealed that participants in Arts ($M = 2.66$, $SD = 0.72$), Commerce ($M = 2.74$, $SD = 0.77$), Science ($M = 2.48$, $SD = 0.80$) and "Other" Faculties (such as Dentistry and Land & Food Systems) ($M = 2.63$, $SD = 1.03$) were significantly more interested than students in Engineering ($M = 1.82$, $SD = 0.85$). An ANOVA also revealed a significant difference between faculty and likelihood of attending the event $F(8, 208) = 4.24$, $p = .001$. Post hoc comparisons using Tukey indicated that students in Commerce ($M = 2.23$, $SD = 0.81$) and Arts ($M = 2.15$, $SD = 0.81$) had significantly higher intentions of attending than students in Engineering ($M = 1.50$, $SD = 0.67$).

Discussion

Our research was guided by a need to attract more UBC students to arts and culture events on campus. Since UBC Arts & Culture advertises to students primarily through posters, we attempted to discover what information these posters need to have to be effective. Specifically, we hypothesized that posters with student price stickers would be more appealing than posters without price information. However, we found no significant difference between the two conditions in terms of event appeal. We also hypothesized that weekend events would be more appealing than weekday events. Again our results did not support this hypothesis as there was no significant difference between the two conditions. Lastly, we predicted that first year students would find the event more appealing but our results did not support this prediction. We suggest that the insignificant results could have occurred for a variety of reasons: the manipulated information might have been too small for participants to see, participants may have raced through the survey too quickly to read all the information, or, perhaps, other factors were influencing participants before they even saw the poster – such as not having time for such events, not budgeting for these events, or not "liking" these events in general. Moreover, we propose that these insignificant results may be due to a lack of participants and encourage a greater participant population for future studies.

While we did not find a significant difference between our hypothesized variables (see Appendix E), we did find significant results when analysing gender, faculty, and previous attendance (Appendix F). Specifically, females scored higher on event appeal than males. Along with this, Engineering students seemed significantly less interested in attending arts and culture events than students in Arts, Commerce, Science and Other. We acknowledge that samples from Fine Arts, Kinesiology, Forestry, and Graduate School had to be left out of our analysis due to small sample sizes (see Appendix G). We also found that previous attendance to an event resulted in higher event appeal scores than no previous attendance. Interestingly, students who attended five or more events in the past gave higher event appeal scores than those who had never attended but were interested. These results suggest that Arts and Culture should focus advertising on students in Arts or Commerce, specifically females, to quickly boost event attendance. Trying to involve more males and more Engineering students will require an examination of the causes of their "indifference" to the arts and the designing and implementation of an intervention. This is vital as past research has shown the benefits of arts and culture events for student success (Friedman, 1997; Krause & Coates, 2008; Rabkin & Redmond, 2011). In fact, Rabkin & Redmond (2011) state that "arts integration turns the curriculum toward work that does not merely reproduce knowledge, but uses knowledge in authentic intellectual ways" (p.29). Improving student well-being moves beyond the goal of simply increasing attendance and, in addition to instilling in students an appreciation for the arts, has the potential to "revitalize science education and reaffirm the essential joy of learning" (Friedman, 1997, p. 7). Moreover, this suggests that it may not be the posters themselves that are ineffective at drawing students to arts and culture events. This is also in line with past research: Ilic & Rowe (2013) found that "posters as a single intervention did not elicit changes in knowledge, attitudes, or behaviour" (p. 9). Future studies could examine the difference between different forms of advertisement on campus, such as posters, fliers, online events, and pop-up performances, to name a few. Students interested in re-running this experiment should ensure their poster manipulations are noticeable enough, comparing "student discounts" to "general admission prices" and should try to collect a more diverse sample, specifically along gender and faculty lines.

This study was limited by several factors; these mark potential areas for improvement for those who wish to replicate our methodology. We acknowledge a selection bias in the recruiting of participants; those who responded to online requests were likely facebook "friends" of one or more of the researchers and thus not representative of the campus overall. Students that were approached in person may have been subject to the Hawthorne Effect although researchers did try to stand well away from them. We faced a few technical glitches as well: Qualtrics did not allow us to sort our data by condition and thus every entry had to be manually transcribed into an Excel file for analysis. The survey would not load the poster image on some mobile devices, and in the morning on March 14, every student who tried to take the survey was prompted to login into Qualtrics, which resulted in the loss of approximately 15 participants.

Another limitation is that our methodology may not have the ecological validity necessary to provide guidance to Arts and Culture as a whole. The poster we used was for one specific theatre performance. Including a more diverse array of events may be necessary to truly gauge the effectiveness of the posters. Furthermore, the posters were primarily black and white, which does not follow previous research that has indicated that colour can be a large factor in grabbing attention (Ilic & Rowe, 2013). We also acknowledge the difficulties that result from creating one's own survey: the questions within the "event interest" and "likelihood of

attending" sets did not correlate perfectly with each other (see Appendix C). Future studies should address these issues and should specifically attempt to use a proven set of survey questions to enhance reliability and validity of any findings.

Recommendations for UBC Arts and Culture

Our recommendations for UBC Arts and Culture fit into three categories: future research with SEEDS, short term solutions, and long term interventions. Because our findings in regards to poster design were not significant, we recommend further testing to determine a) what elements make for an appealing poster and b) if posters are the most effective method of advertising for UBC Arts and Culture. We also suggest that future SEEDS students explore the faculty gap to determine why Engineering students are significantly less interested than their peers and to design an intervention to get them excited about arts and culture events on campus. Similar research can be conducted on the gender gap. Conducting future research with SEEDS can engage students with arts and culture on campus by raising awareness through the studies.

In terms of ways to quickly boost attendance at arts and culture events, we recommend marketing to students in the faculties of Arts or Commerce by placing posters and fliers in their most-frequented buildings (Buchanan and Henry Angus). We also suggest marketing toward students who have already attended at least one event; our results show that the more events participants had attended in the past, the more likely they were to find this event appealing. Giving discounts on tickets when a student purchases tickets for two or more events might be one way to do this. This is also consistent with past research: Andreasen & Belk (1998) found "that heavy attenders at one live performing art... tended to be heavy attenders at other[s]" (p.112). Research by Palazon & Delgado (2009) has also shown the importance of price discounts on students' decisions to attend. Perhaps when shown alongside the normal ticket prices, the student discounts will be more effective. Though our results were not significant, we recommend that first year students be targeted as they will have more time to make arts and culture events part of their routine as opposed to upper years who have less time to become serial attendees. Working with Residence Life to add coupons, brochures, or fliers in students' welcome packages has the potential to boost attendance.

Long term interventions should aim to target those who are least likely to attend arts and culture events. Our study showed that students in Engineering were far less likely to rate this event as "appealing" than students in other faculties. In fact, they were the only faculty to consistently return "unappealing" ratings. An intervention that focuses on creating interest in this faculty for the performing arts could rely on an appeal to former research that has found arts and culture events to benefit the academic well being of students (Friedman, 1997; Krause & Coates, 2008; Rabkin & Redmond, 2011). However, as noted above, further research to determine the cause of the Engineering faculty's low interest should be conducted first, as it could be due to a myriad of factors. Long term interventions could also focus on addressing the gender gap – perhaps some venues could hold a "men's night out" to attract more males to the events. Again, further studies would be instrumental in determining the best course of action.

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APPENDIX A: CONDITIONS

Condition 1: Student Price Sticker

51 participants.

This condition was meant to emulate Arts and Culture's "Student Price" stickers, which are placed onto existing posters to attract students with a lower price. Posters do not show the full ticket price on them. Date information was also removed to avoid possible confounds with conditions 3 and 4.

Condition 2: No Student Price Sticker

57 participants.

This condition was meant to emulate current posters for the event, which do not show pricing info. Instead, posters show where to buy tickets by providing a weblink. Date information was also removed to avoid possible confounds with conditions 3 and 4.

Condition 3: Weekend

54 participants.

This condition displayed showtimes that only occurred on weekends. This was meant to assess the appeal of the event given that it occurred on a weekend. Previous research (Ragsdale et al., 2011) had shown that weekend events would be more popular among students.

Possible confounds existed in this condition, however: students who were familiar with the event would likely know it didn't run only on weekends, and may have disregarded the poster information.

Condition 4: Weekday

55 participants.

This condition displayed showtimes that only occurred on weekdays. We hypothesized that interest in weekday events would be lower than for weekend events, in line with Ragsdale et al.'s (2011) research. However, no significant differences were found between conditions three and four.

The same confound that existed in condition three applied here; students who were familiar with the event likely discarded the information stating it only occurred on weekdays.

APPENDIX B: LIST OF SURVEY QUESTIONS

Demographic Questions	D1: Choose the option which best represents your student status at UBC: • Undergraduate – Year 1 • Undergraduate – Year 2 • Undergraduate – Year 3 • Undergraduate – Year 4 • Undergraduate – Year 5+ • Graduate Student D2: I identify as… • Female • Male • Non-Binary or Other D3: While enrolled as a UBC student, have you ever attended an arts and culture event on campus? *(Arts and culture events may include visits to the art gallery, musical performances, dramatic performances (theatre, opera, etc) held at one or more of: The Belkin Art Gallery, The Chan Centre, Frederic Wood Theatre, The School of Music, The Old Auditorium, or The Audain Art Centre.)* • Yes; 1-2 times • Yes; 3-4 times • Yes; 5 or more times • Never; and I am not interested • Never; but I am interested. D4: What faculty are you in? • Arts • Engineering • Fine Arts • Forestry • Graduate/Post Doc Studies (any faculty) • Kinesiology • Sauder School of Business • Science • Other
Interest in Attending	Q1: I would be interested in attending this event. Q2: I think I would have a good time at this event. Q3: This event looks boring. Q4: This event is appealing to me.
Likelihood of Attending	Q5: I am likely to attend this event. Q6: I can picture myself attending this event. Q7: I am unlikely to attend this event. Q8: I think that I will go to this event.

APPENDIX C: PILOT STUDY RESULTS

"Interest in Attending"

		C1Q1 Interest Attending	C1Q2 Good Time	C1Q4 Appealing	C1Q3 Boring
C1Q1 Interest Attending	Pearson's r	—	1.000 ***	1.000 ***	-0.866
	p-value	—	< .001	< .001	0.333
C1Q2 Good Time	Pearson's r		—	1.000 ***	-0.866
	p-value		—	< .001	0.333
C1Q4 Appealing	Pearson's r			—	-0.866
	p-value			—	0.333
C1Q3 Boring	Pearson's r				—
	p-value				—

* p < .05, ** p < .01, *** p < .001

"Likelihood of Attending"

		C1Q5 Likely Attend	C1Q6 Picture Attending	C1Q8 Go To Event	C1Q7 Unlikely Attend
C1Q5 Likely Attend	Pearson's r	—	0.500	1.000 ***	-1.000 ***
	p-value	—	0.667	< .001	< .001
C1Q6 Picture Attending	Pearson's r		—	0.500	-0.500
	p-value		—	0.667	0.667
C1Q8 Go To Event	Pearson's r			—	-1.000 ***
	p-value			—	< .001
C1Q7 Unlikely Attend	Pearson's r				—
	p-value				—

* p < .05, ** p < .01, *** p < .001

APPENDIX D: PARTICIPANT RECRUITMENT

In-Person Recruitment

Date	**Time**	**Building**	**Number of Participants**
March 7, 2017	5:00pm	Irving K. Barber	20
March 8, 2017	3:00pm	IONA	10
March 9, 2017	4:00pm	Sauder	8
March 9, 2017	4:30pm	The Nest	6
March 14, 2017	2:00pm	CIRS	4
March 14, 2017	4:30pm	The Nest	8
March 14, 2017	5:00pm	Irving K. Barber	13
March 15, 2017	2:00pm	EOSC	4
March 16, 2017	4:00pm	Woodward	13
March 21, 2017	10:30am	Mathematics Building	2
March 21, 2017	2:30pm	Sauder	14
March 21, 2017	5:00pm	Irving K. Barber	8
TOTAL			**110**

Online Recruitment

Facebook	Posted to Facebook groups, including: • UBC Class of 2017 • UBC Class of 2018 • UBC Class of 2019 • UBC Class of 2020 • Personal Facebook groups (university-related) Posted to Facebook wall targeting "friends." Survey link sent directly to potential participants.
Connect	Posted to Connect discussion boards.
TOTAL	**125**

APPENDIX E - INSIGNIFICANT RESULTS

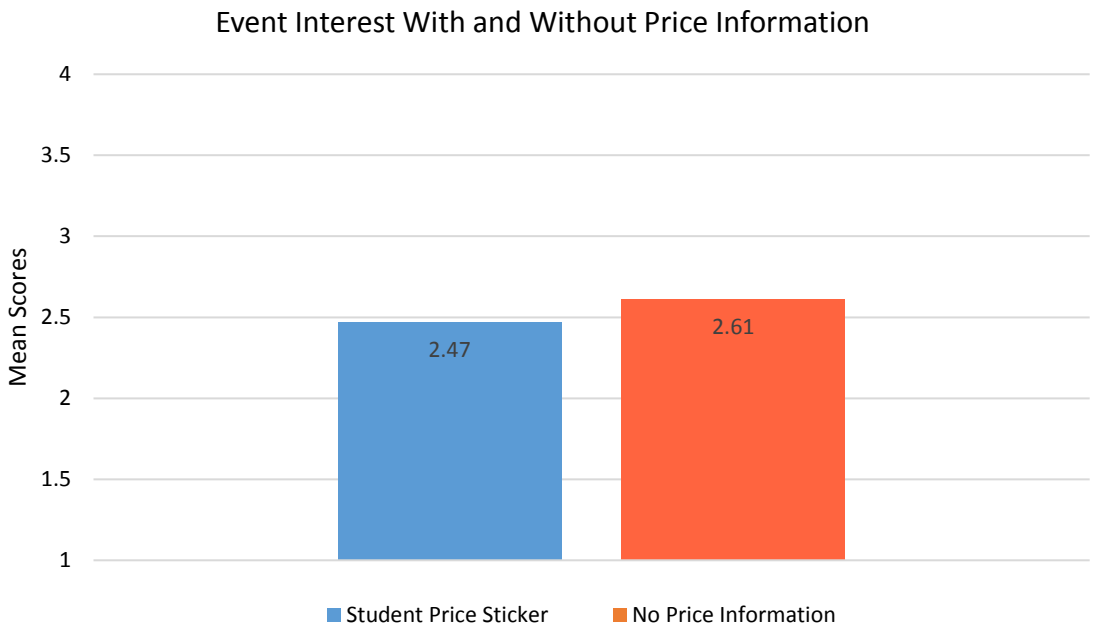

Figure E1. Event Interest with and without Student Price Information. No significant differences were found between these two conditions.

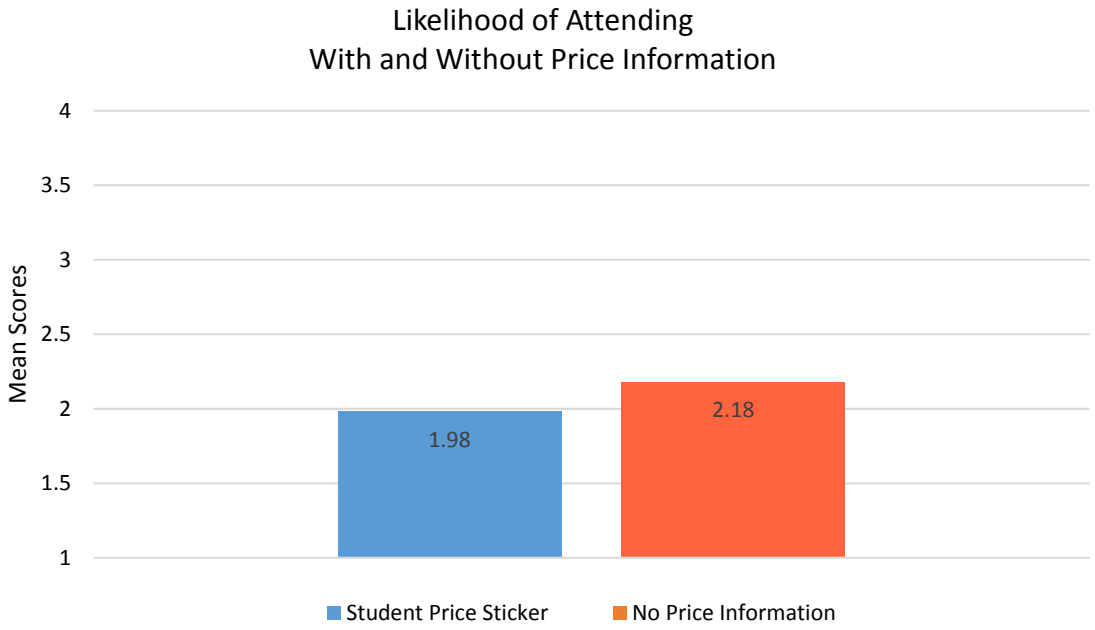

Figure E2. Likelihood of Attending with and without Student Price Information. No significant differences were found between the means of these two conditions.

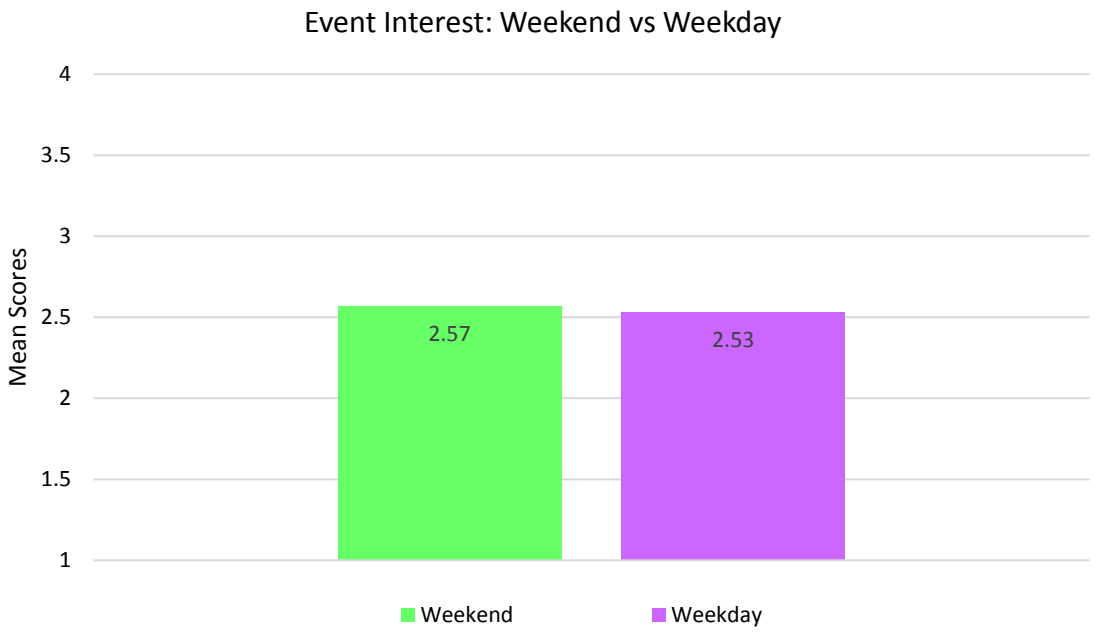

Figure E3. Event Interest Across the Weekend and Weekday Conditions. No significant differences were found between the means of these two conditions.

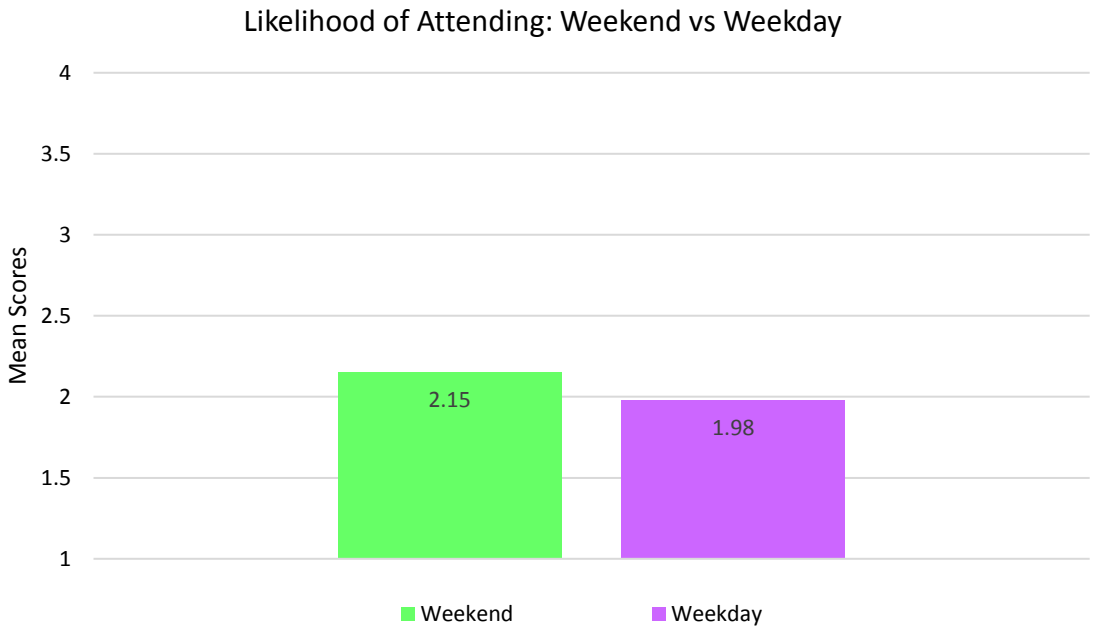

Figure E4. Likelihood of Attending Across Weekend and Weekday Conditions. No significant results were found between these two conditions.

APPENDIX F – SIGNIFICANT RESULTS

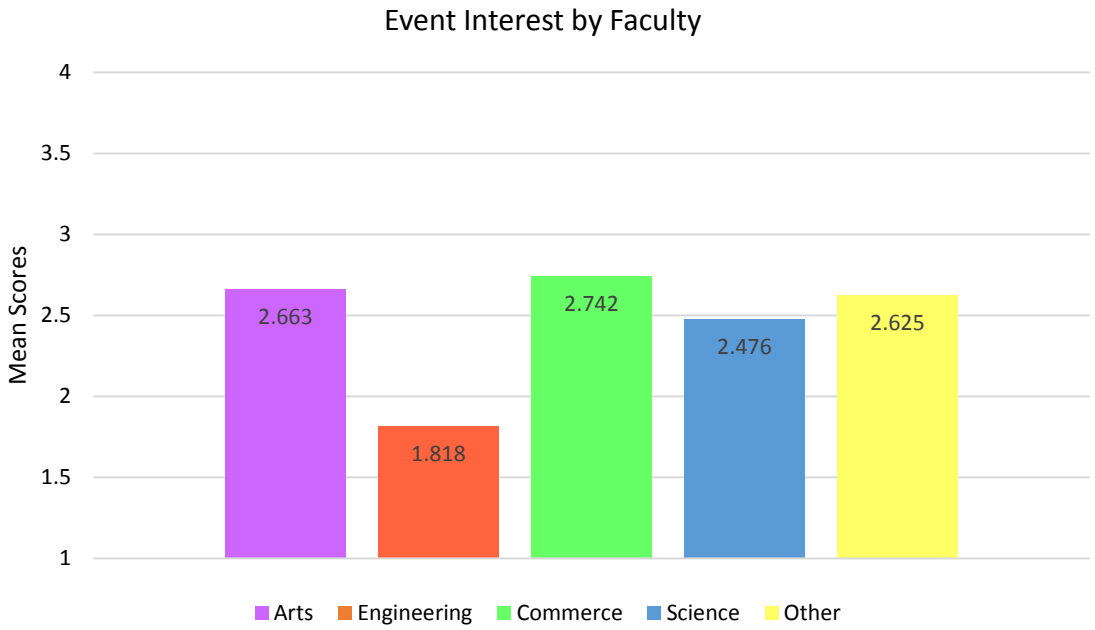

Figure F1. "Interest" by Faculty. This graph shows the significant results found after conducting an ANOVA and post-hoc tests (Tukey) between "event interest" and "faculty."

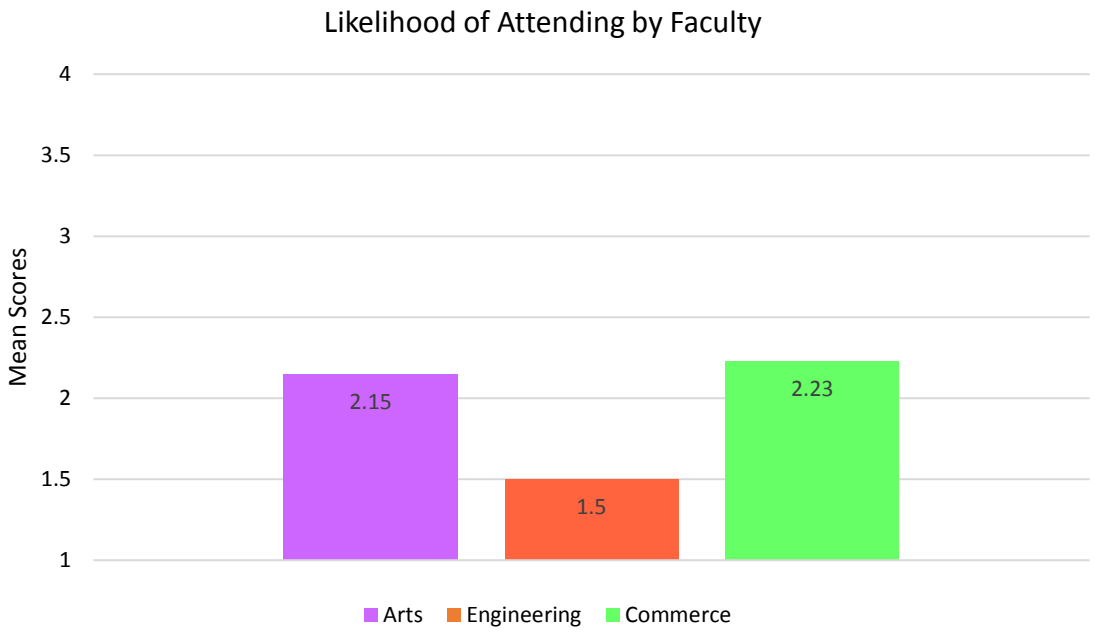

Figure F2. "Likelihood of Attending" by Faculty. Significant results were only found when comparing Engineering to Arts and Commerce.

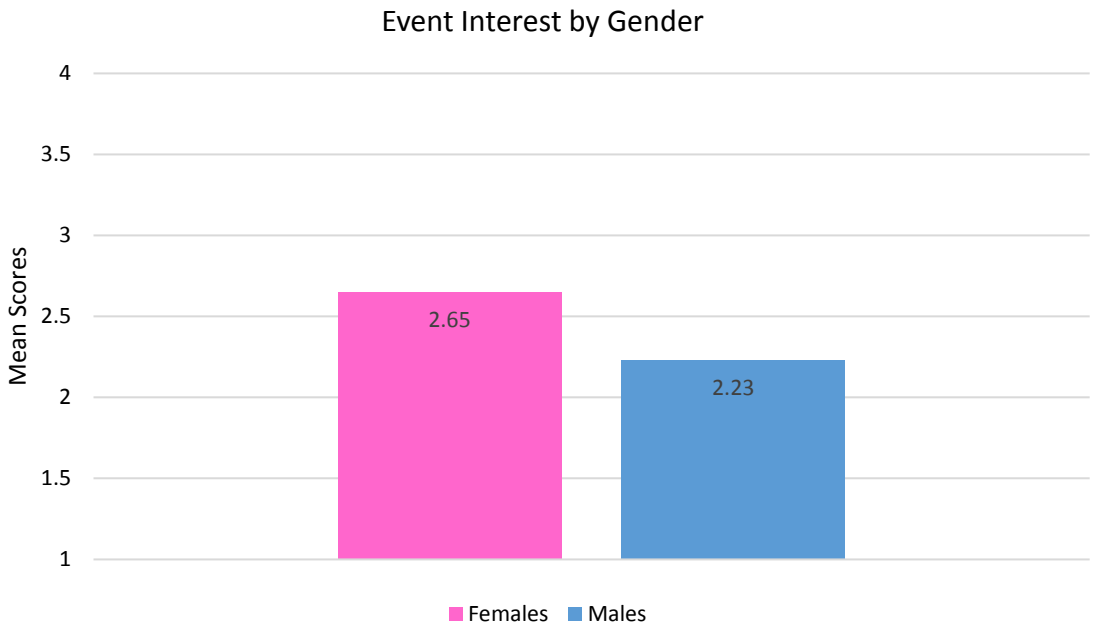

Figure F3. Event Interest by Gender. Significant results were found when comparing females to males in an ANOVA and post-hoc Tukey's tests.

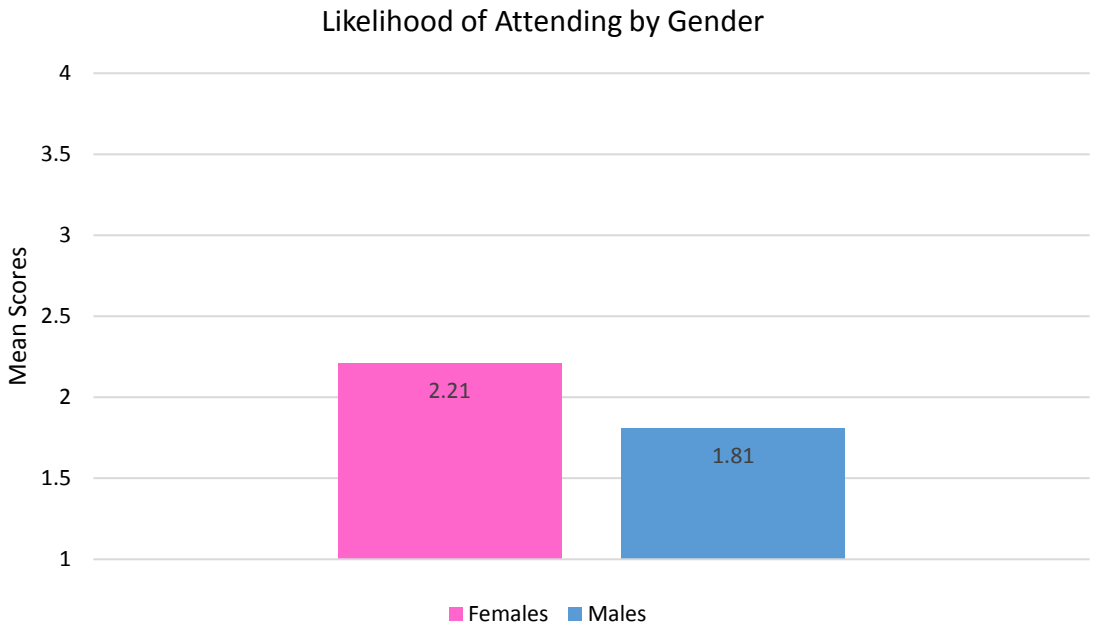

Figure F4. Likelihood of Attending by Gender. Females were significantly more likely to respond in a way that indicated they felt "likely to attend" than males did.

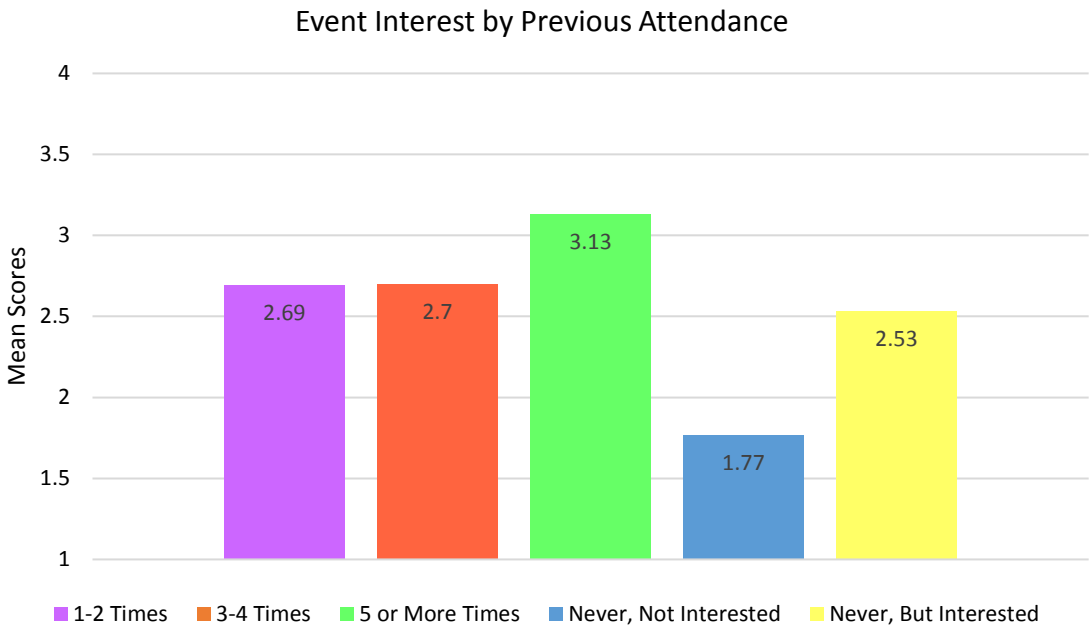

Figure F5. Event Interest by Previous Attendance. This graph displays the significant results found between previous attendance and event interest after conducting an ANOVA and post-hoc Tukey's tests.

APPENDIX G: PARTICIPANT DEMOGRAPHICS

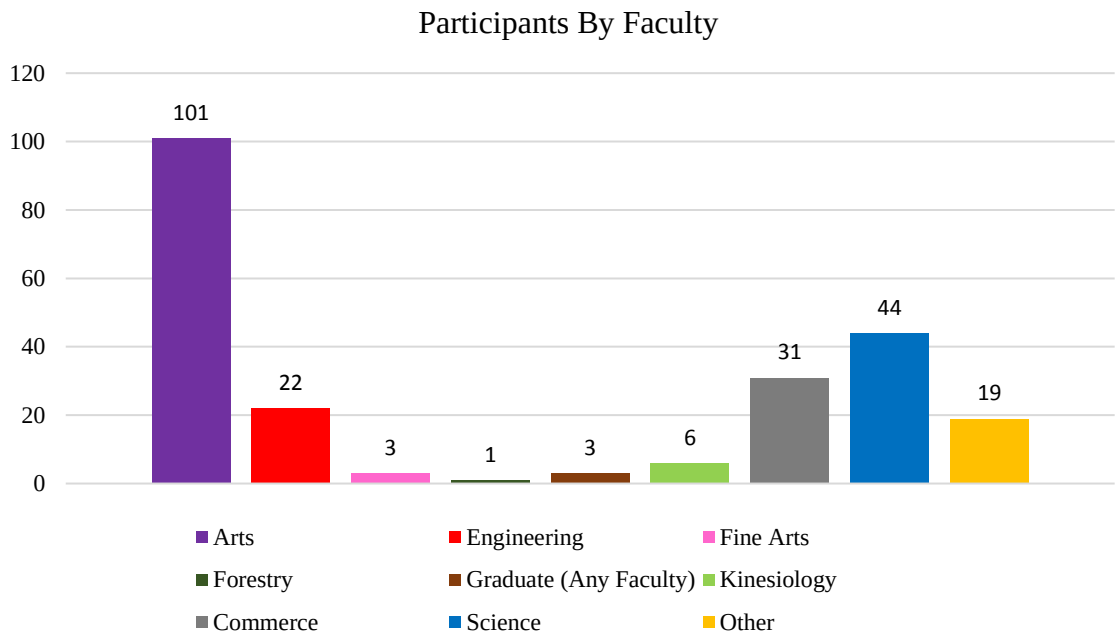

Figure G1. Participants by Faculty. During inter-faculty analyses, Fine Arts, Forestry, Graduate, and Kinesiology were eliminated due to insufficient numbers.

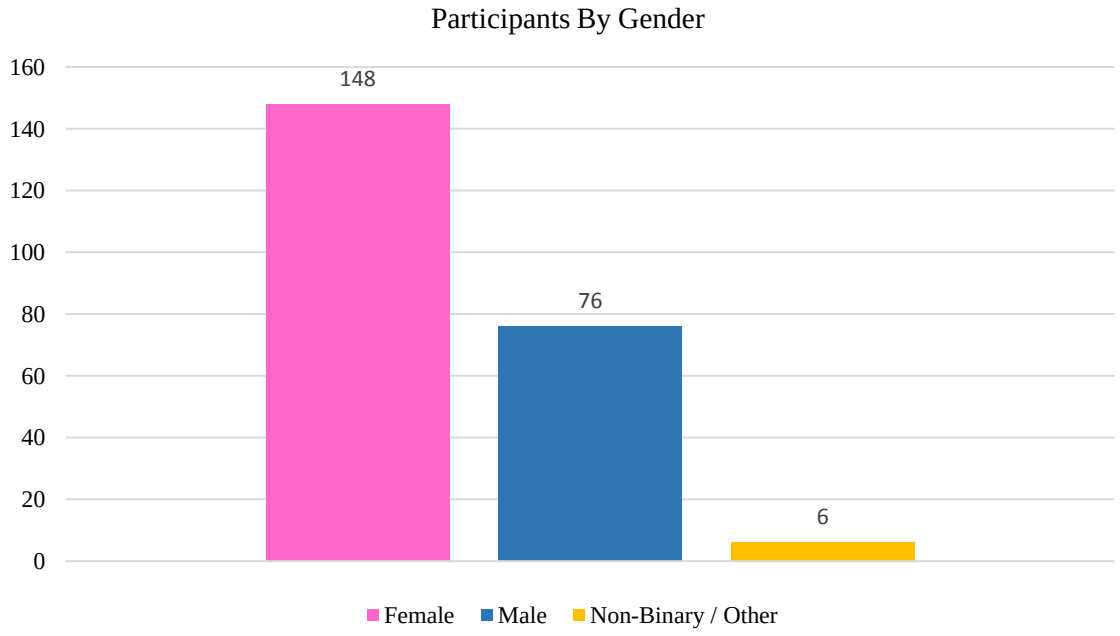

Figure G2. Participants by Gender. During inter-gender analyses, the "non-binary/other" category had to be eliminated due to insufficient participants.

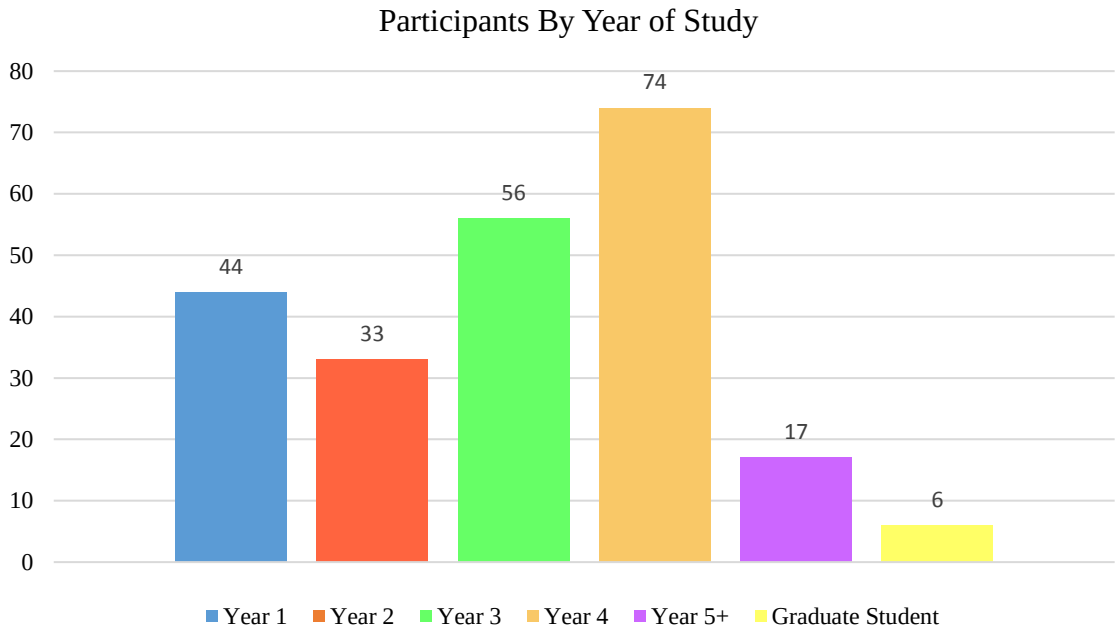

Figure G3. Participants by Year of Study. This study was interested in the effects of being in first year on willingness to attend.

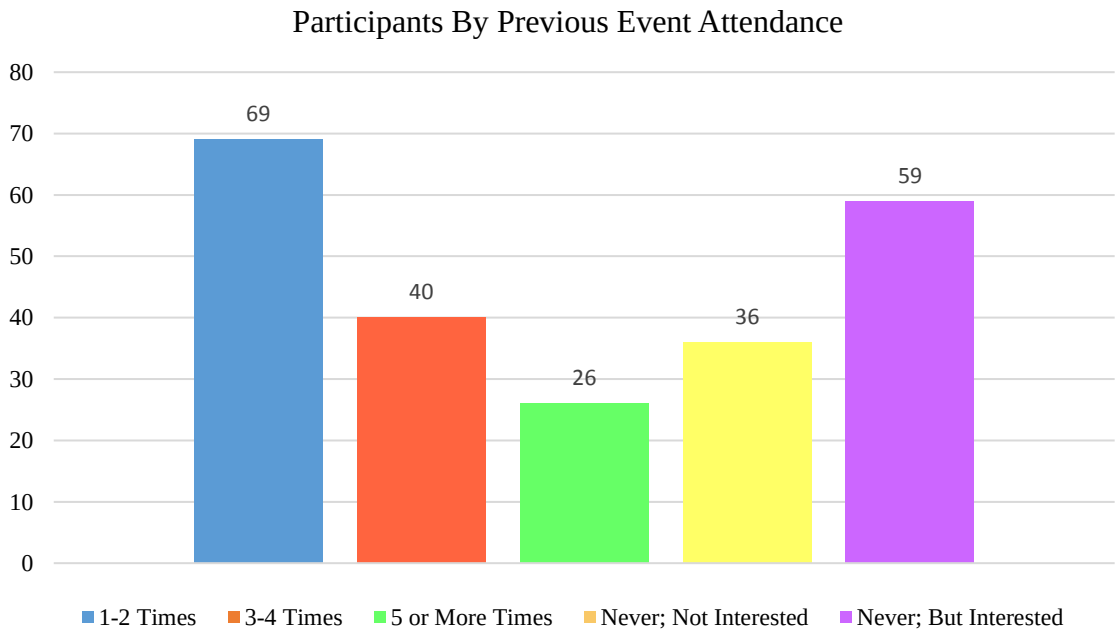

Figure G4. Participants by Previous Attendance.