

---

---

# Office of Sustainability

What is the most effective way to increase the USD community's awareness of our school's Climate Action Plan?

— Hannah Stoever, Violette Peoples,  
Nikki Barden & Emily Laymon —

---

---

# Agenda

1. Introduction
2. Define research problem, question & process
3. 5 hypotheses
4. Results
5. Recommendations



# Office of Sustainability Background

Mission: to promote sustainable initiatives throughout USD's campus

Founded in 2009

Goal to see USD become one of most sustainable campuses in US

Climate Action Plan: reduce USD's contribution to climate change

Energy, Commuting, Air Travel, Zero Waste, Fleet, Water

Cut emissions and environmental footprint

15% by 2020, 40% by 2030, 50% by 2035

# Low student interaction with the OSS despite importance of sustainability

In depth interviews reveal lack of awareness of CAP amongst USD students

Survey shows only 6% of students have interacted with the OSS

Yet... 73% of students find sustainability important

**How can USD students contribute to the goals outlined in CAP if not aware?**

# Research Question

What is the most effective way to increase the USD community's awareness of our school's Climate Action Plan?



# Significance of Research Question

Global Warming

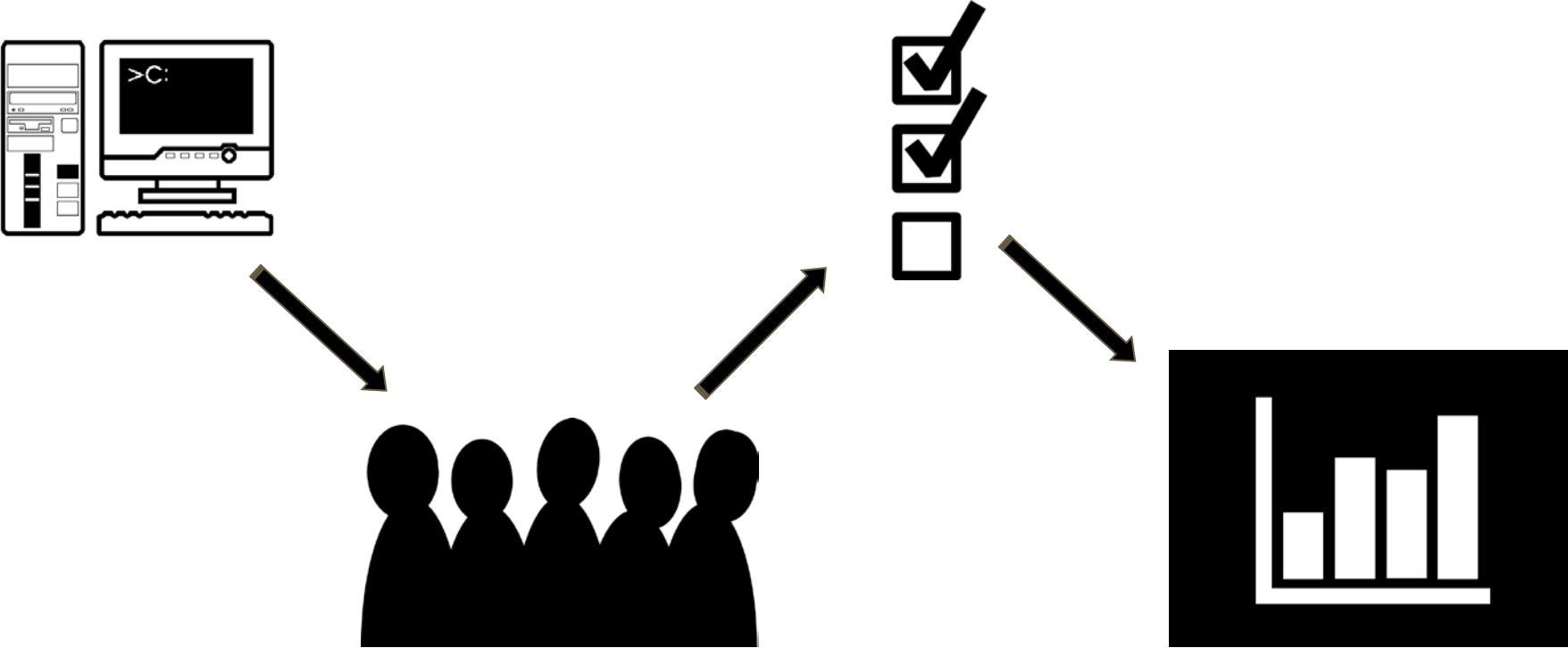
Earth's Avg. Temp: 43.9 F to 46.6 F (EPA 2017)

Effects: Arctic ice caps melting, intense rainfall and heat, coastal flooding

San Diego demand for water will increase 37% at current use by 2050

Lack of government protection - individual efforts

# Research Process



# Data Collection Methods

Online survey designed on Qualtrics

Distributed through Facebook, in person & over text message

Sample - screened

USD students - all grade levels, academic schools, gender, age

Potential data issues

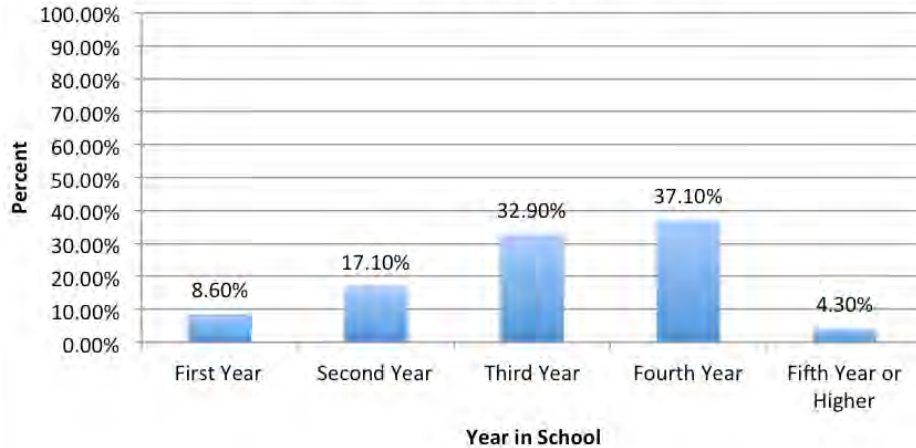
100 responses to 70 responses

Bias toward female and upperclassmen

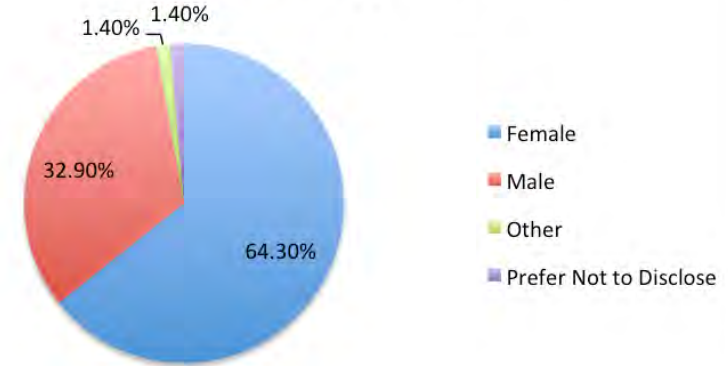


# Breakdown of our Demographics

## Year in School of Respondents



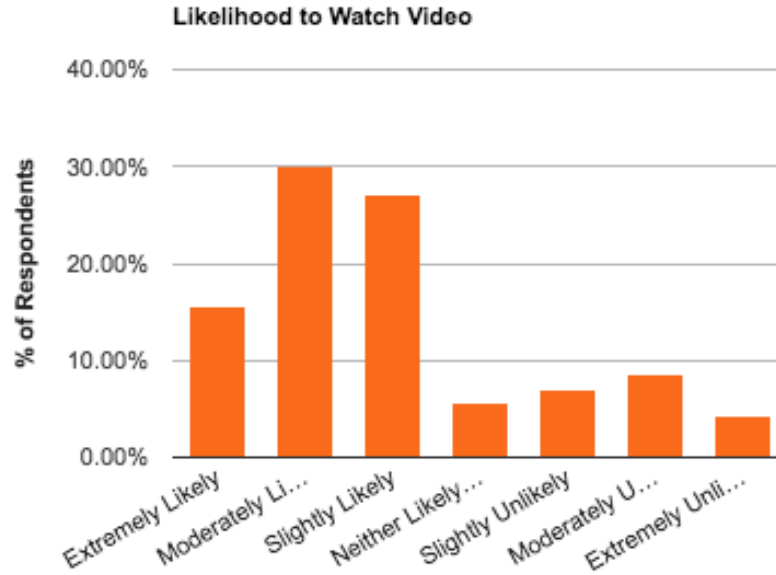
## Gender of Respondents



**If the Office of Sustainability creates a series of short, informative videos for their social media channels about sustainability, then students would have an increased awareness of the Climate Action Plan.**



# Students Likely to Watch Social Media Videos about Sustainability



(95% Confidence, p - value = .0001, t-value = -4.885, mean = 3.01)

# Positive Emotions & Cognitive Words to Describe Sustainability Videos



**“If the video provided local facts and information, especially about on-campus or local initiatives, more like to do something different than if provided with general information”**

**“It would make me more aware of what how USD is sustainable and help us understand where our money goes and make tuition more meaningful”**





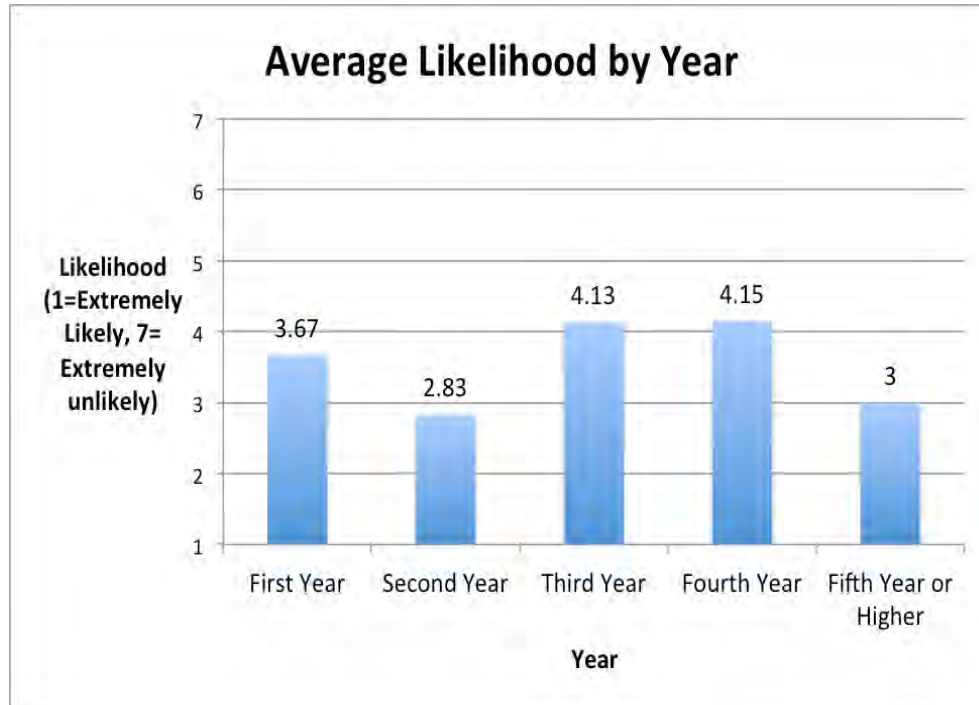
- Video Length Preference: 32.9% for 30s to 1 min, 34.3% for 1 min to 2 min = 67.9%,
- 42.9% moderately interested in watching video on FB,

- Content Preference: 72% slightly-extremely interested in water conservation
- 71.7% slightly-extremely interested in energy conservation

**If the Office of Sustainability creates an opportunity where they could interact with students, then awareness of the Climate Action Plan would increase.**



# Sophomores are the most likely to attend events hosted by the OSS



ANOVA:  $F(4,65) = 2.184$ ,  $p\text{-value} = 0.081$

90% confident there's a statistically significant difference in average likelihood between years

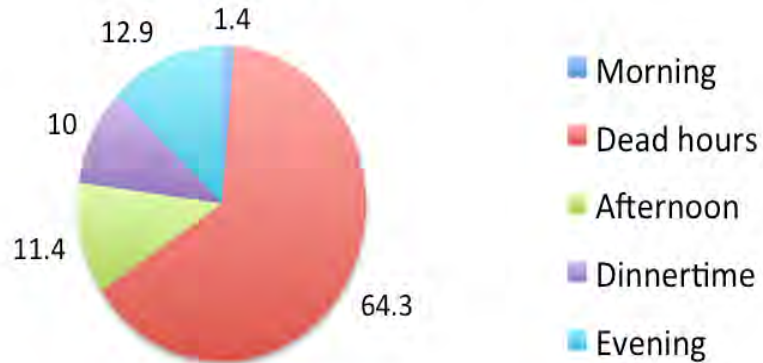
Upperclassmen are busy

Sophomores have a better feel for campus wide events

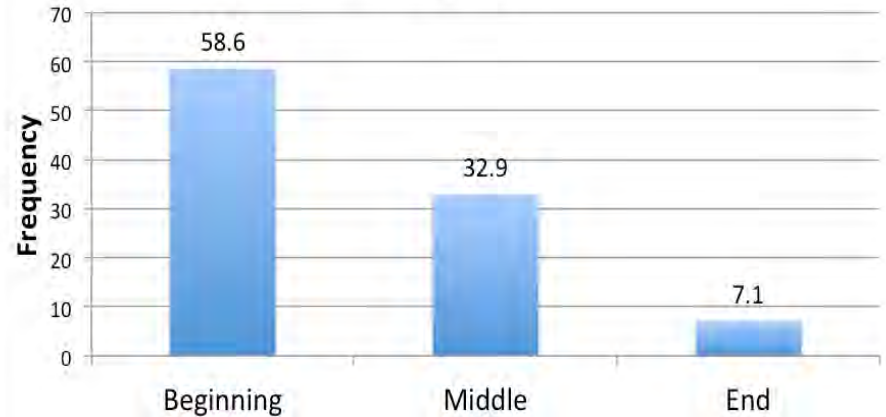


# Best time for an event: beginning of the semester during dead hours

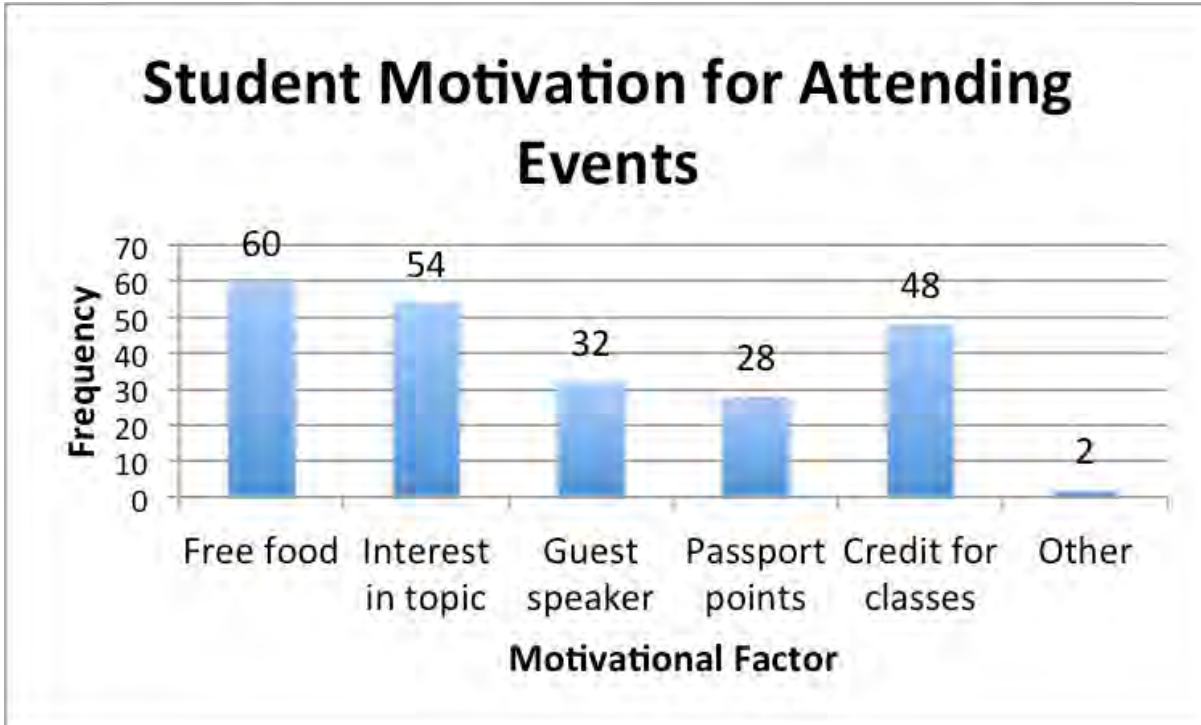
Time of Day Most Likely to Attend an Event



Point in Semester Most Likely to Attend an Event

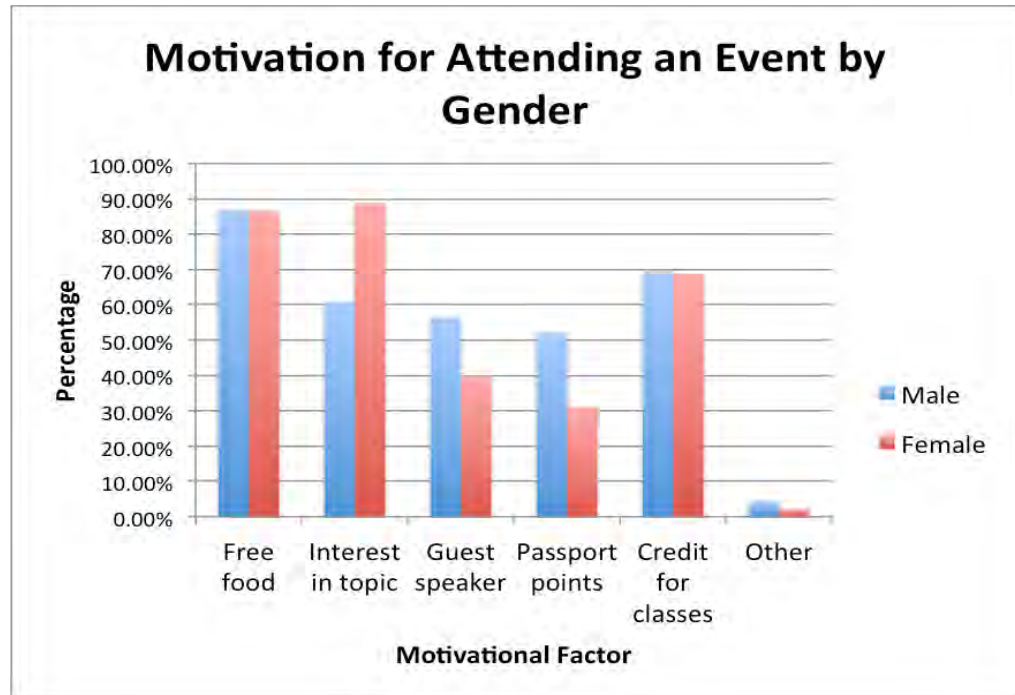


# Free food is the biggest motivator for students to attend events

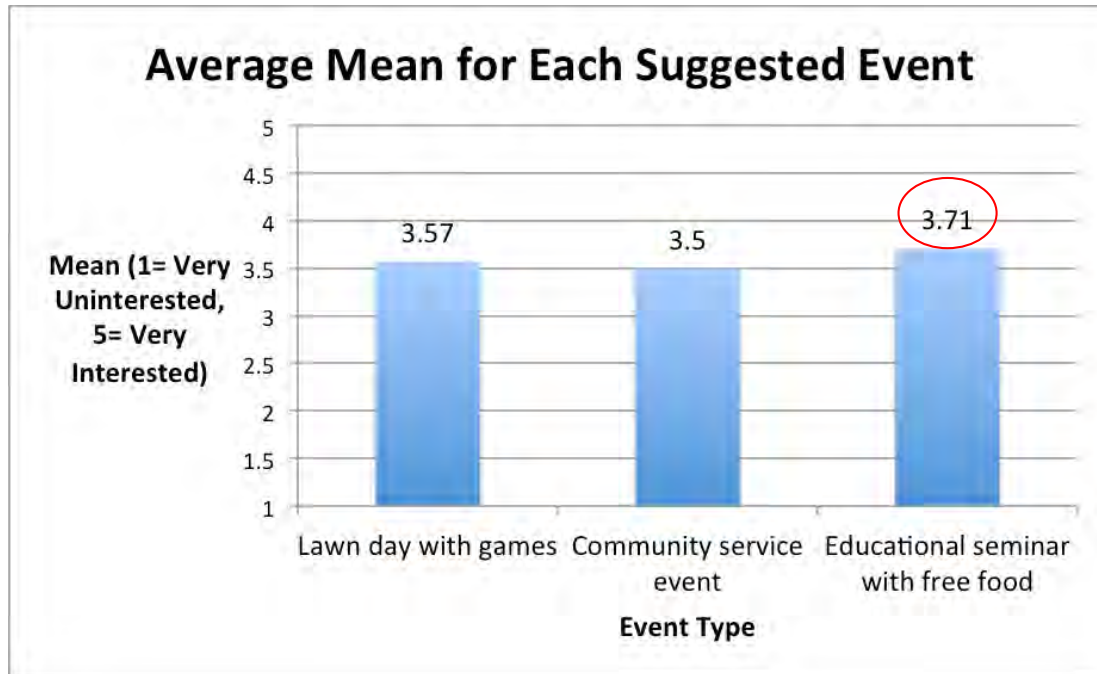


# More females are motivated by topic, where more men are motivated by guest speakers and passport points

- Free food and class credit roughly the same



# Students most likely to attend an educational seminar with free food



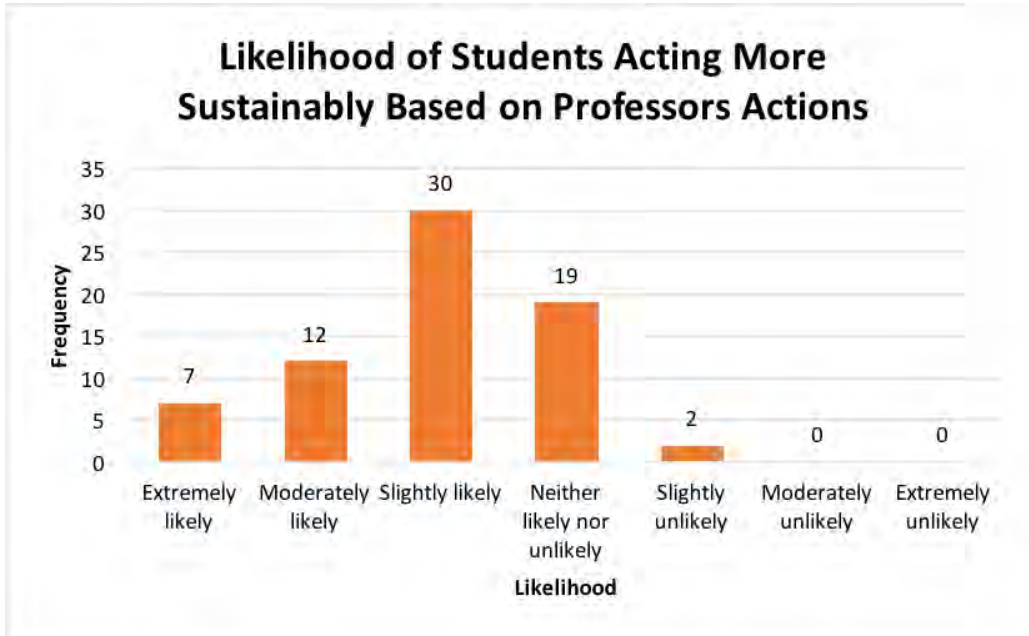
- Events suggested within in depth interviews
- No statistical significance for social media challenge with a prize

One sample t-tests; Lawn day (t-value= 4.115, p-value= 0.0001), Community service (t-value= 3.849, p-value= 0.0001), Educational seminar (t-value= 5.611, p-value= 0.0001), Social media challenge (t-value= 0.603, p-value=0.548) ← Reject since 0.548 > 0.01 for 99% confidence

**If the Office of Sustainability creates a competition between the professors and students, it will increase awareness about the Climate Action Plan on campus.**



# Students are slightly likely to act more sustainably if seeing a professor do so



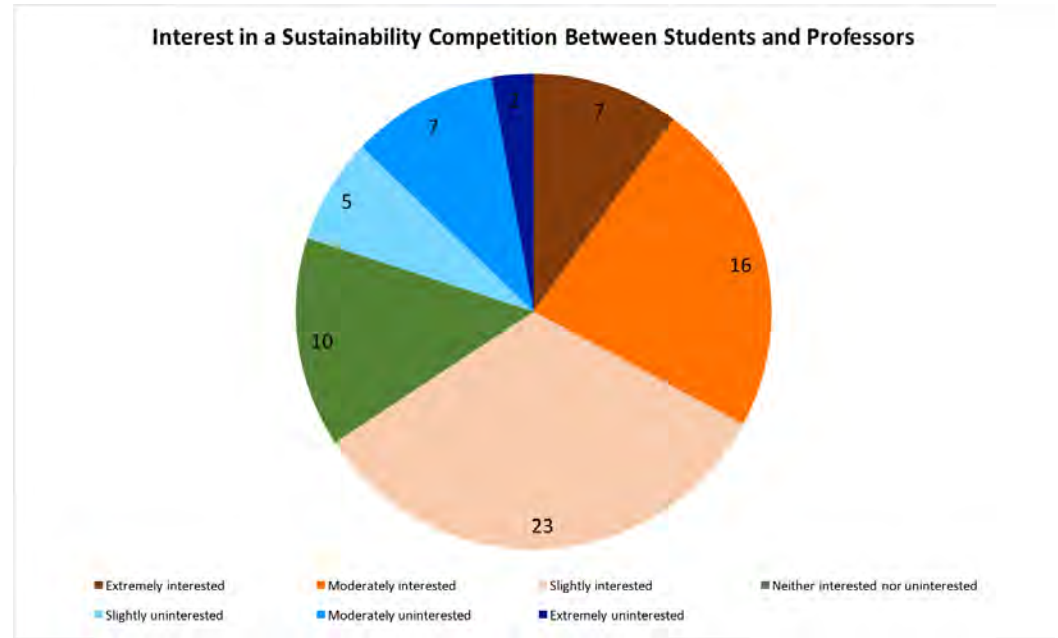
- Friends and Professors are the 2nd and 3rd most common way to learn about things happening on campus.

(5 point scale) Friends mean =2.16, std dev= 1.19;  
professors mean =3.46, std dev= .784

One sample t-test, Mean = 2.96, p-value= .000, T-value = -8.863, Reject the null with 99% confidence

# Students are interested in participating in a sustainability competition with professors

- 77.1% of respondents at least somewhat agree that a competition would influence them to make more sustainable choices



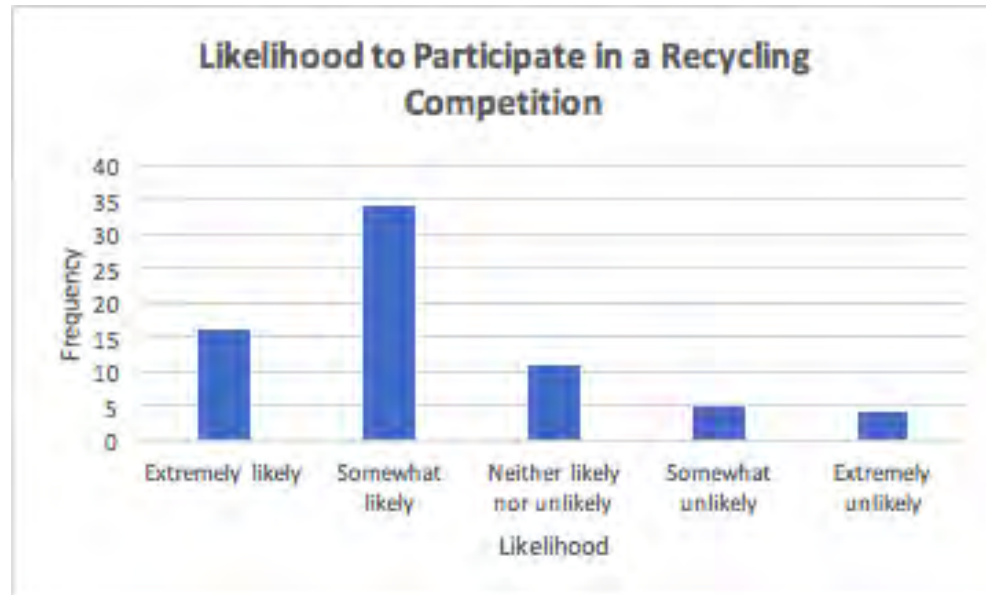
One sample t-test, Mean = 3.27, P-value = .000, T-value = -3.956

**If the Office of Sustainability creates a school-wide recycling competition, more USD students will be aware of the Climate Action Plan.**



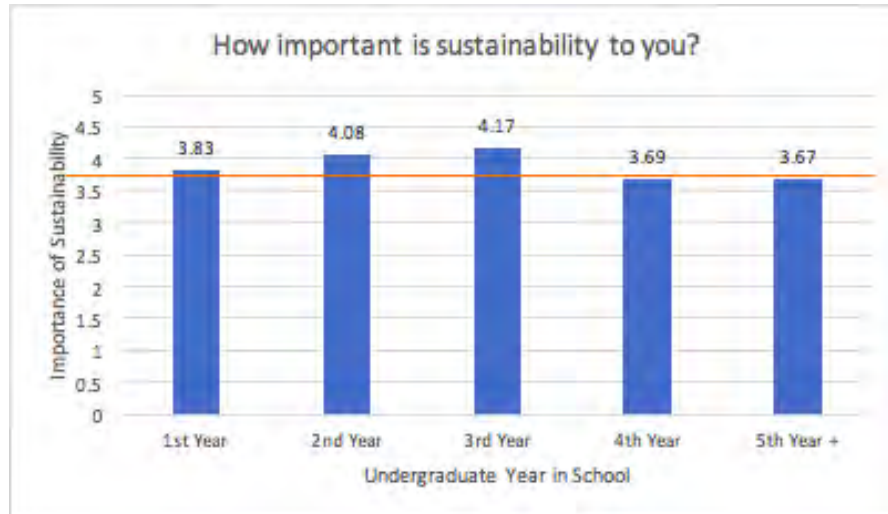


# Students are somewhat likely to participate in a recycling competition.



One sample t-test: mean = 2.24, t-value = -5.925, p-value = 0.001

# The average importance of sustainability does not significantly differ by year in school.



ANOVA, mean = 3.93, f-value = 0.897, p-value = 0.471

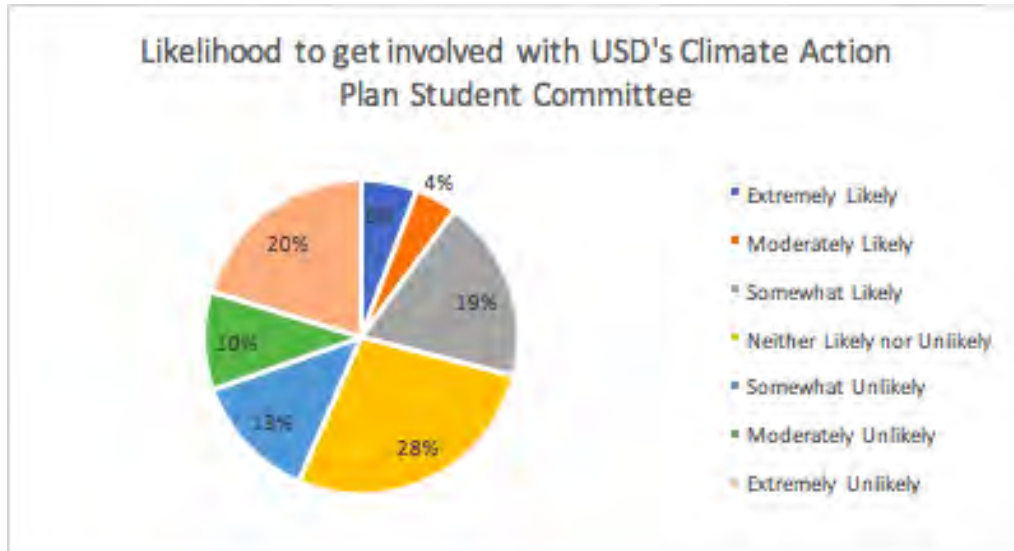
No need to differentiate marketing tactics per grade

Focus on targeting student body as a whole

**If the Office of Sustainability creates a Climate Action Plan student committee, they will be able to increase the student population's awareness of the Climate Action Plan.**



# Students are somewhat unlikely to get involved as Climate Action Plan student ambassadors.

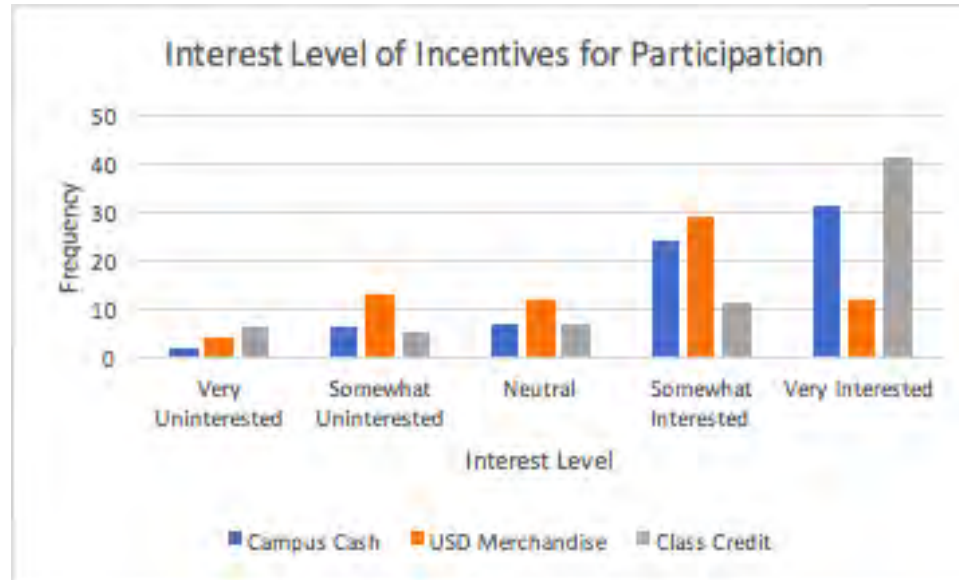


One Sample T-Test, 99% confidence, mean = 4.49, p-value = 0.001, t-value = 2.345

The level of satisfaction with USD's commitment to sustainability is not a significant predictor of the likelihood to get involved as student ambassadors for USD's Climate Action Plan

Linear Regression Test, r-square = 0.008, p-value = 0.463

# Students are interested in receiving incentives for their participation.



One Sample T-Test, 99% confidence, Campus Cash (mean = 4.09, p-value = 0.001, t-value = 8.463), USD Merch. (mean = 3.46, p-value = 0.001, t-value = 3.324), Class Credit (mean = 4.09, p-value = 0.001, t-value = 6.846)

# Summary

Students are at least somewhat interested in social media videos about sustainability

Sophomores are the most likely to attend an event

Free food is the biggest motivator for students

Dead hours and the beginning of the semester is the best time for an event

Students are likely to compete in a sustainability competition with professors

Students are somewhat likely to participate in a recycling competition, but are somewhat unlikely to get involved in a Climate Action Plan student committee

# Recommendations

# Social Media Campaign To Increase Awareness

8 Videos about CAP & sustainability initiatives on campus

Promote on Facebook, Instagram, Snapchat

Focus on 6 themes of CAP, introduction and conclusion

Ways to get involved on campus & local initiatives





# Educational Seminar with Free Food

Hold at the beginning of the semester during dead hours

Invite a guest speaker

Optional: passport point incentive

*Board & Brew*

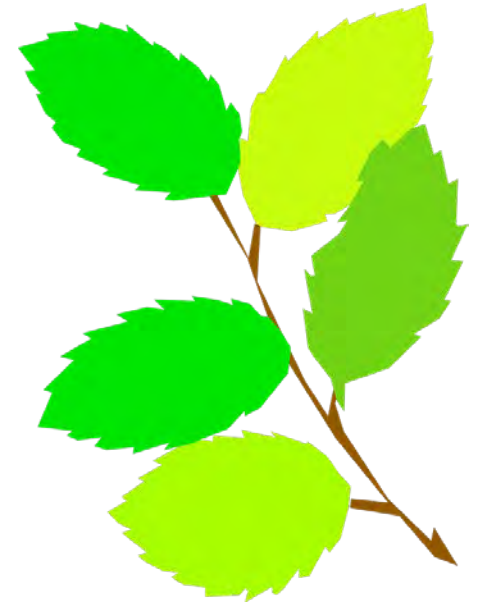


# Students Keep Track of Professors Sustainable Actions

Implement a section on Blackboard where students could keep track of professors sustainable actions (i.e. How much paper they use, etc..)

student section as well

“Green professor or student” award



# Recycle for Campus Cash

Incentivize recycling by creating a program when students and faculty can turn in recyclables to the USD Recycling Center in return for \$0.10 Campus Cash per bottle/can/recyclable product

**REDUCE**  
**REUSE**  
**RECYCLE**



# Climate Action Plan Student Committee

Offer students the 0.5 credits per semester of involvement as student ambassadors for the Office of Sustainability

Weekly meetings to create plans for implementing the Climate Action Plan on campus

