

# Pro-environmental behaviors, social norms, and norm conflict: information to guide approaches to foster a more sustainable university

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## Introduction

1. Need for conservation efforts and behavioral change, **particularly at large universities.**
2. Extensive literature indicating that perceptions of “normal” behavior can impact our actions (Cialdini, 2003).
3. Less clear what happens when we receive different signals about “normal behavior” from different groups.
4. Difficulty of engaging in a behavior may affect how common the behavior is and impact of norm conflict.
5. This study explores the effect of norm conflict on pro-environmental behaviors (McDonald et al. 2012, 2013).
6. Results will benefit university decision-makers by providing information on (i) the frequency of pro-environmental behaviors, (ii) perceived norms for different behaviors, and (iii) whether norm conflict hinders or facilitates environmentally friendly behaviors.

## Environmentally Friendly Behaviors Evaluated in this Project

“...please indicate the percentage of the time you engage in these behaviors when you have the opportunity to do so.”



Easier: Moderate: More difficult:

Flick a switch Buy & remember bottle Find size & style

## Research Questions

- What percentage of OSU students engage in environmental behaviors that differ in how difficult they are to engage in?
- To what degree are OSU students exposed to conflicting norms about environmentally friendly behaviors?
- Do conflicting norms make OSU students more likely to engage in behaviors (because they believe that not enough is being done) or less likely to engage in behaviors (because they doubt the behavior’s effectiveness) (McDonald 2013)?

## Methods

- We distributed a survey to 10,000 randomly selected Ohio State University undergrads.
  - Students were asked about environmentally friendly behaviors and perceived behavioral norms of their family, close friends, and the OSU student body.
  - We calculated a score for norm conflict between these groups as the average of the difference in norms between each pair of group (see Fig. 3)
- $$\frac{| \text{fam} - \text{friend} | + | \text{fam} - \text{student} | + | \text{friend} - \text{student} |}{3}$$
- We also calculated means for each behavior perceived descriptive norms, and the level of norm conflict
  - We fit simple linear regression models to understand the relationship between norm conflict and environmentally friendly behavior.

Fig 1. Frequency of Perceived Behavior

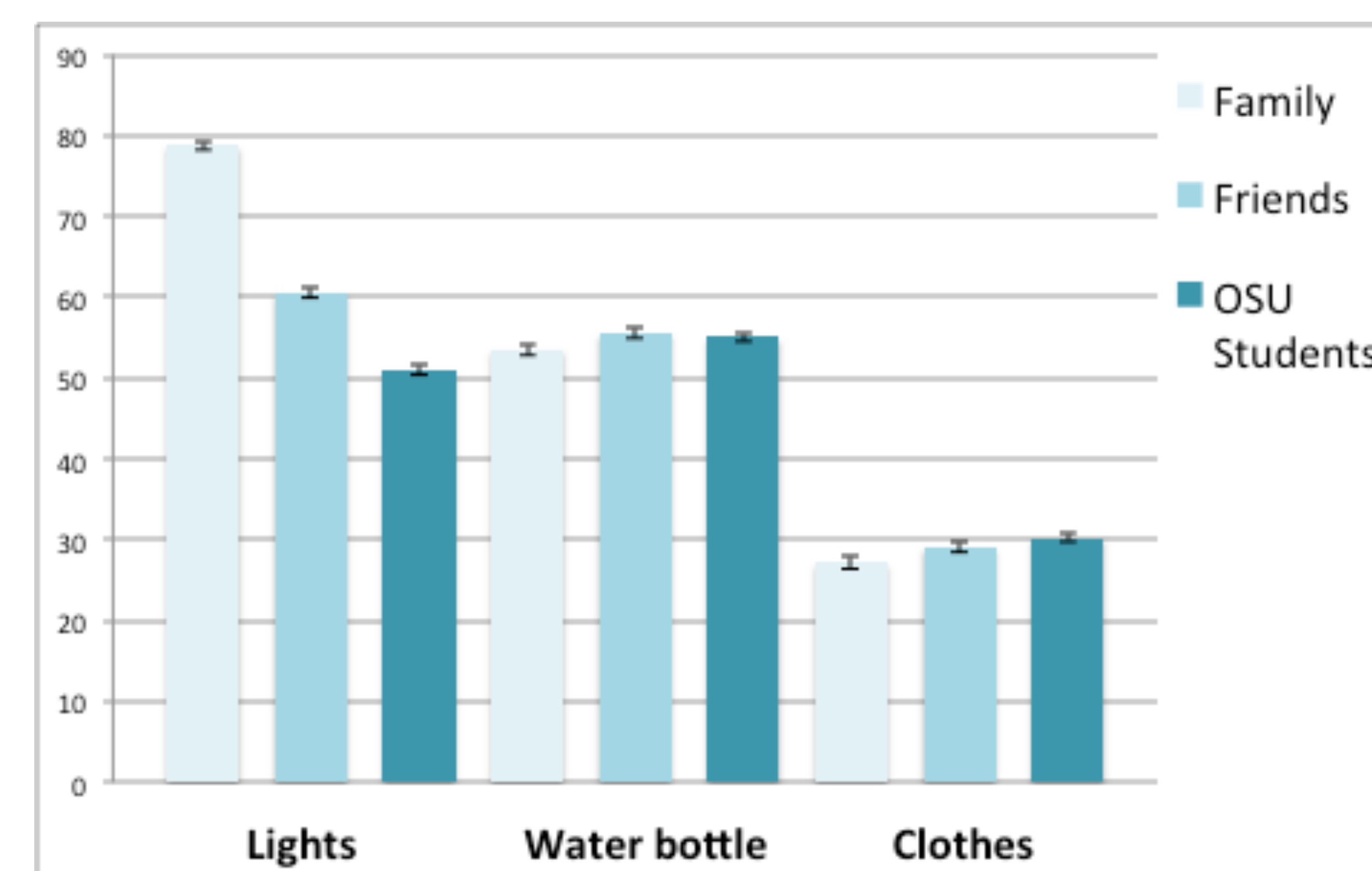


Figure 1. perceived norm of each social group using the question “what percentage of each group regularly...”.

Fig 2. Self-Reported Behavior and Behavior of Student Body

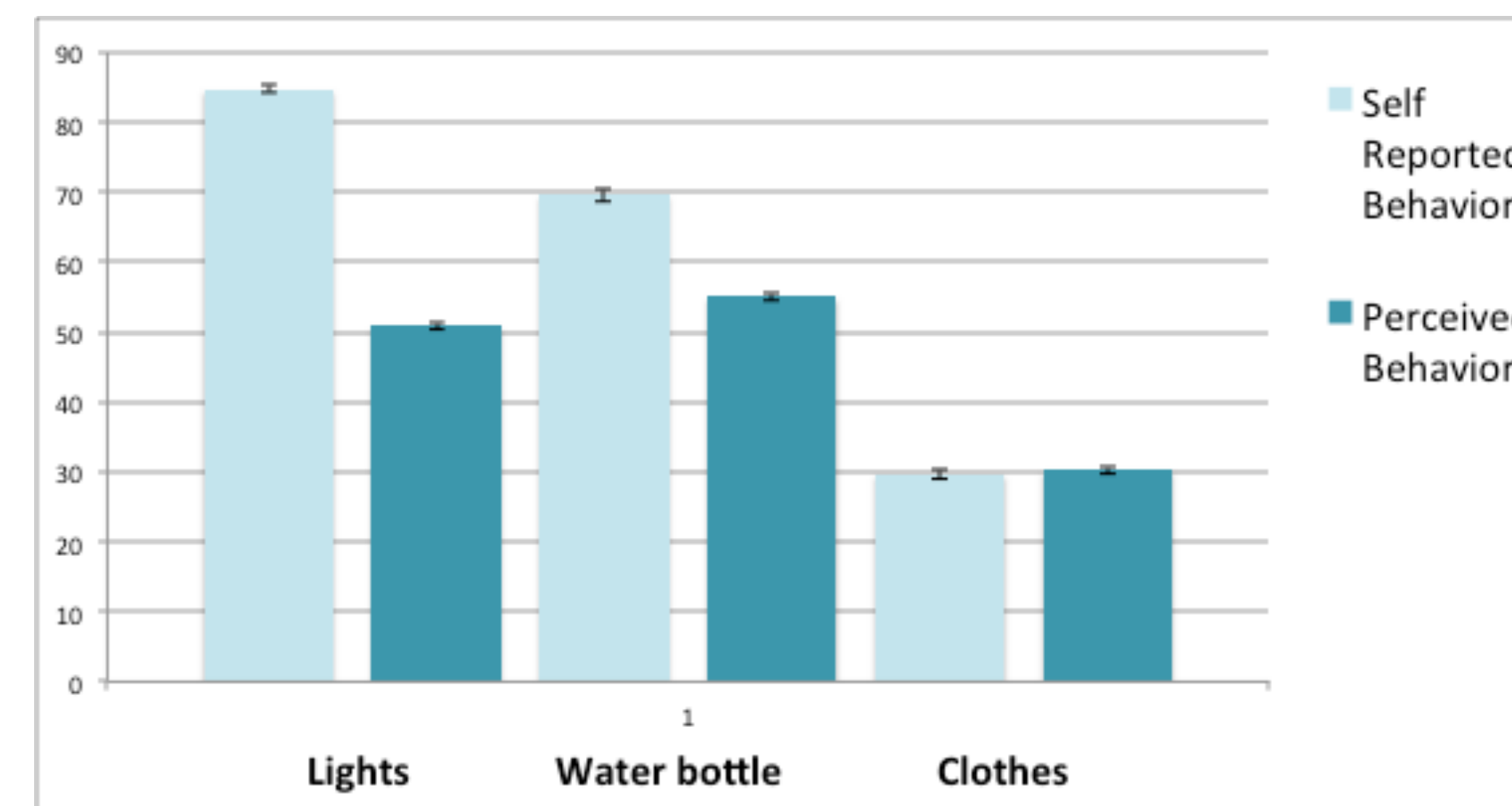
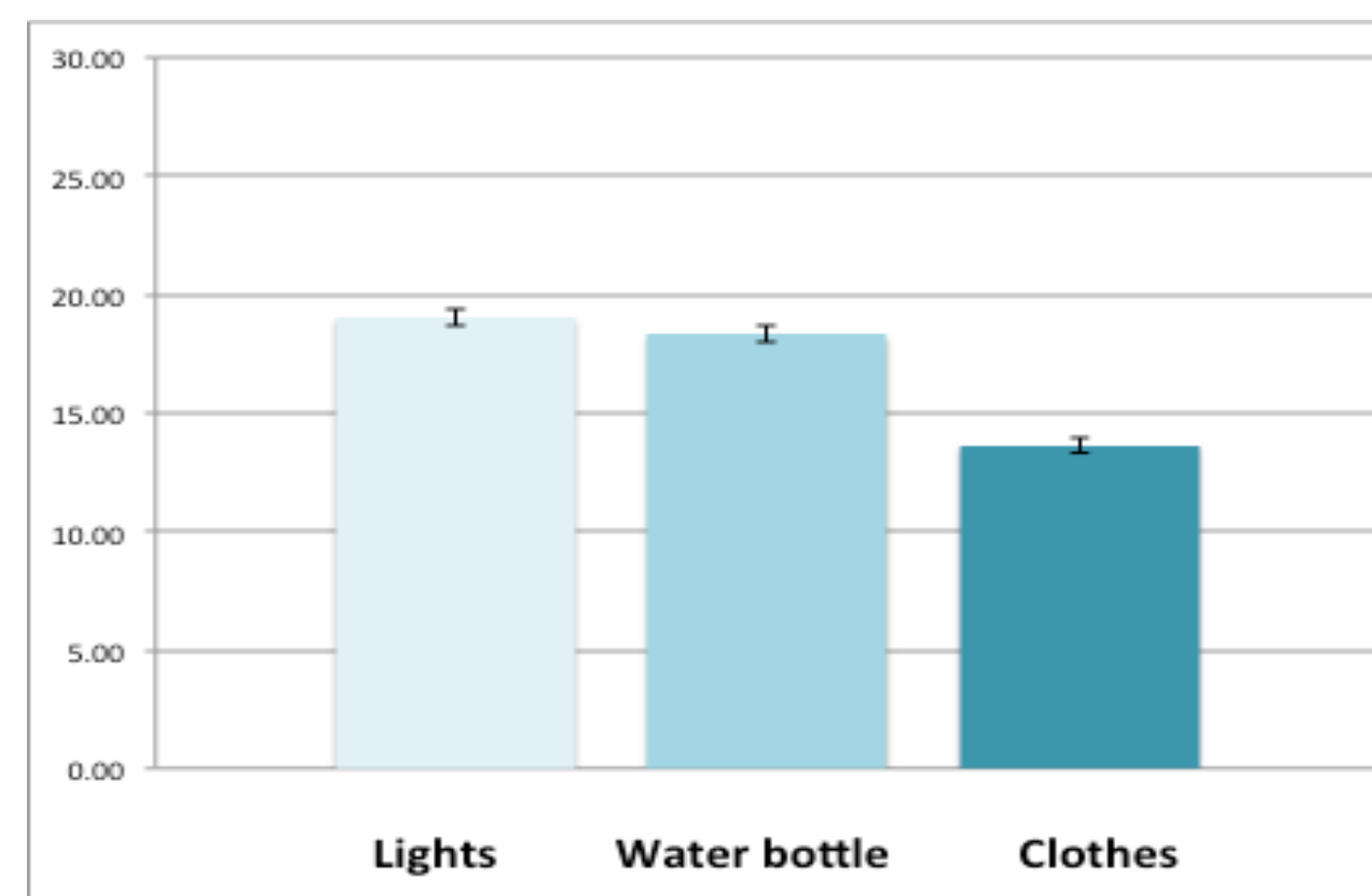


Figure 2. Reported behavior is determined using the question: “...please indicate the percentage of time you engage in these behaviors when you have the opportunity to do so.”

Fig 3. Norm Conflict for Each Behavior



## Linear Regressions - Effect of Norm Conflict on Behavior

Behavior	$\beta$	p-value
Lights	0.061	<b>0.032</b>
Water bottle	0.036	0.132
Clothes	0.271	<b>0.000</b>

\* Bold indicates significant results

## Linear Regressions controlling for Age and Residence

Behavior	$\beta$	p-value
Lights:		
Norm Conflict	0.017	0.536
Age	0.023	0.418
Off Campus	0.155	<b>0.000</b>
Water bottle:		
Norm Conflict	0.040	0.160
Age	-0.006	0.000
Off Campus	0.042	0.832
Clothes:		
Norm Conflict	0.292	<b>0.000</b>
Age	0.089	<b>0.004</b>
Off Campus	-0.025	0.429

\*Bold indicates significant results

## Discussion/Conclusions

- Participation in environmentally friendly behaviors decline as level of difficulty rises.
- Norm conflict can influence students’ decision to engage in certain sustainable behaviors.
- Decision makers should be aware that perceived norms may not reflect actual behavior.
- University decision makers should account for time and effort of targeted behavior when crafting messages promoting sustainability.
- For more difficult behaviors, decision makers may want to highlight norm conflict to encourage sustainable behavior.

## Work Cited

Cialdini RB. 2003. Crafting normative messages to protect the environment. Current directions in psychological science 12(4):105-109.  
McDonald RI, Fielding KS, Louis WR. 2012. Conflicting Norms Highlight the Need for Action. Environment and behavior.  
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