

An Evaluation of the Take Back the Tap Program at UCCS

Context

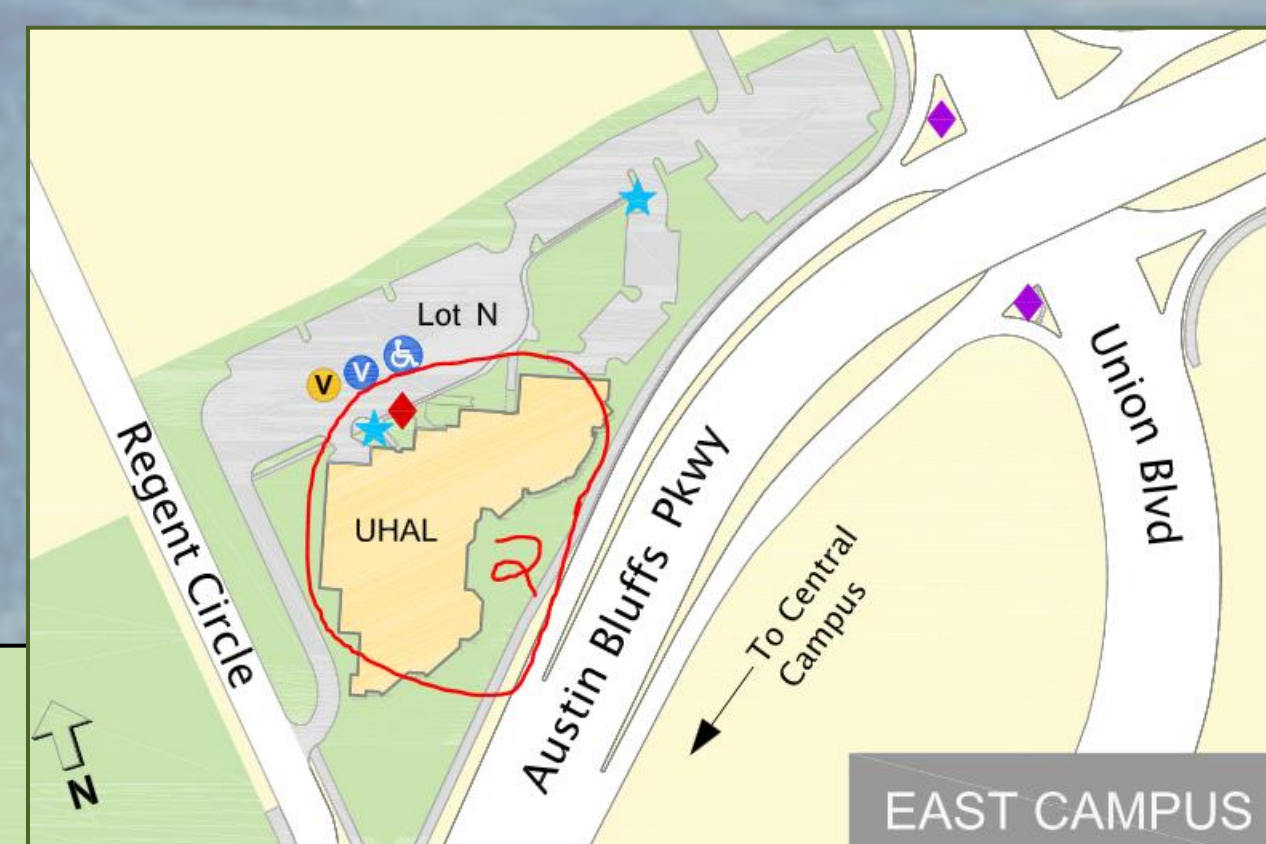
The University of Colorado at Colorado Springs strives at becoming a model campus for sustainability through various entities. A commitment has been made by the administration to “reduce our carbon emissions” as well as incorporate sustainability into the curriculum to increase the “ecological literacy.” Students and faculty also play key roles in this process of making choices for the greater good of the campus and community. In 2010, Students initiated the campaign to stop the sale of bottled water on campus and joined the nationwide movement known as “Take Back The Tap”. A bill was drafted by students and put on the Spring 2011 ballot. The bill passed to eliminate the sale of bottled water on campus by 2014. To make the transition as smooth as possible implementations were put into place. Water bottle filling stations were added to each academic building on the UCCS campus in the span of the 2012-2013 academic year. Funds were procured from Auxiliary Services and from a student funded “Green Action Fund” to purchase reusable water bottles for all students enrolled in Freshman Seminar.

In order to receive these water bottles, students were required to attend a 15 minute training session on sustainability and the impacts of disposable plastic water bottles on the environment. The purpose of this study is to evaluate the effectiveness of these actions on increasing the usage of the water bottle filling stations.



Counter – Calculates how many plastic bottles are eliminated from waste

Locations of 13 hydration stations with bottle counters on campus as of Fall 2013



Data

- Over 23 educational presentations have been concluded, targeting the 1,582 freshman students, their instructors, and teaching assistants.
- More than 1,000 Klean Kanteens have been given to freshman.
- 13 hydration stations with bottle counters installed throughout the campus.
- Water filling station counts were taken the month before freshman received a Kanteen and then two months after for comparison. These numbers reflect the total number of water bottles that have been saved by each filling station.
- Student enrollment populations were acquired from yearly press releases by the University stating the official student enrollment per year.

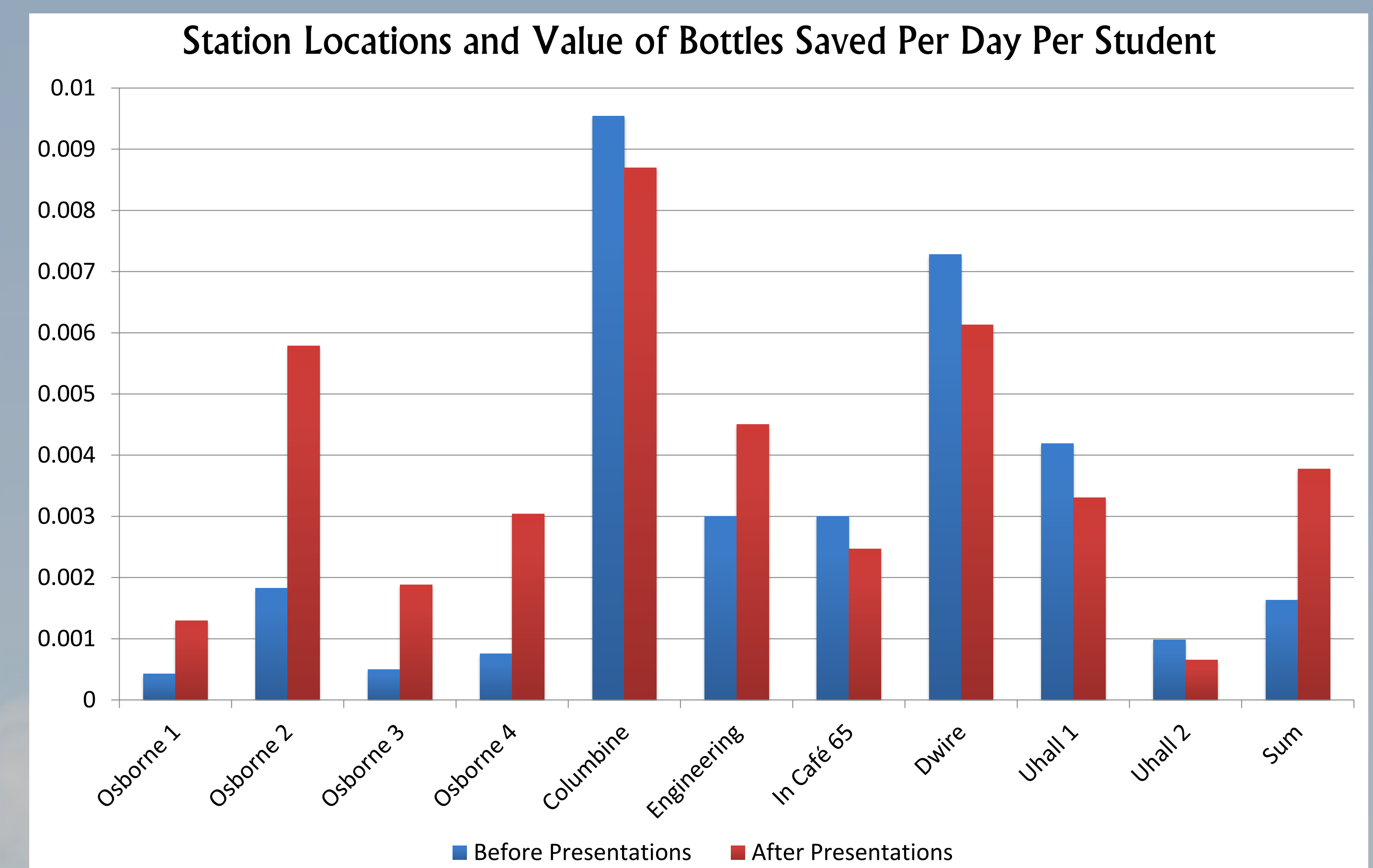
Methods

- Students are required to attend a 15 minute presentation on the sustainability efforts being made on campus and the environmental impacts of disposable plastic bottles. An influential study conducted by Haines and Spear showed that presentations in classrooms as part of a campaign to change behavior have been effective (Haines & Spear, 1996).
- Collaborated with multiple groups and organizations in order to provide students a quality reusable water bottle.
- Prior to the beginning of the Fall 2013 semester, counts were taken from each water bottle filling station to determine the mean number of bottles filled at each station per month. These numbers were then normalized by the total student population enrolled during this time so that an increased student population would not inflate the estimated usage statistics of the filling stations.

Preliminary results

- Preliminary results seemed very favorable. The overall value of bottles saved per student per day on the ten sites data was collected. The data shows there was an increase of .002143 bottles per day. While this number seems very low, with 10,958 students on campus this calculates to an increased savings of 8291 bottles per year if this trend continues versus the previous measurement periods.
- Of the ten data collection sites, five showed an increase in usage, while five showed a decrease in usage. Of note, the locations that showed an increase in usage are all within the same geographic proximity – in Osborne Hall and the adjacent Engineering building. The reasons for this yet to be explored.

Preliminary results



Future directions

- Continue the campaign for the next three years – includes collaboration with the sustainability office and students for environmental awareness and sustainability club providing the 15 minute educational requirement.
- Continue to track and analyze data to look for trends and evaluate effectiveness of the program.
- Gather data from surveys provided to all participants in the presentation portion, which consists of students, faculty and staff. This qualitative data will be used to adjust the approach on education to help improve overall results.
- Investigate the reasons by the geographic differences in water bottle usage change.
- Statistical tests will be performed to determine the significance of findings.

References

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Acknowledgements