

Project Status Report: CEEEn-2018CPST-004
Team Members: Josephine Bastian, Angie Ayaviri, Whitney Robison
Project Title: Spanish Fork Irrigation-Water Conservation Study

Report Date: 2/19/2019

1) Summary of technical/non-technical challenges encountered

- The team computed different answers for the student t-tests, so those results will need to be confirmed by a third party.
- The team needs to discuss with Chris, John and Dr. Williams the method of finding cost-benefit given the amount of water saved.

2) Team approaches & resolutions to overcome challenges

- Team needs to confirm equivalent results for the student t-tests. To do this, they will schedule an appointment with Dr. Williams or another statistics professor.

3) Status of challenge resolutions & potential project impact

- The 2 control groups' figures and analysis will help the team see how the Rachio controllers are affecting water conservation at Spanish Fork.
- Now that water conserved can be quantified given the decrease in water usage in the 718 homes of record, the team can find how much water can potentially be saved in all of Spanish Fork with the installation of each controller.

4) Project status & summary

- Control groups were divided into two parts, those with controllers installed during 2018 and those without in controllers in both 2017 and 2018.
- Data has been collected from 1,718 homes for both control groups to form a robust representation of how water usage changed with the installation of the controllers. Inaccuracies have been cleared out. Preliminary student t-tests prove that the results are statistically significant.