**Semester Project- Progress Assessment**

1. **What is your revised question?**

Old Question: What irrigation methods are used in the United States and which is the most effective one?

Revised Question: What is the water distribution usage of various irrigation methods in general irrigation, irrigation of crops, irrigation in golf courses, and production of thermoelectric energy, and what techniques can be applied to each to ensure better water efficiency?

1. **What dataset are you going to use?**

Citation for Dataset

Dieter, C.A., Linsey, K.S., Caldwell, R.R., Harris, M.A., Ivahnenko, T.I., Lovelace, J.K., Maupin, M.A., and Barber, N.L., 2018, Data from “Estimated Use of Water in the United States County-Level Data for 2015” (ver. 2.0, June 2018): U.S. Geological Survey data release, Available at <https://doi.org/10.5066/F7TB15V5>. Deposited September 28th, 2017.

Citation for Entire Book Article

Dieter, C.A., Maupin, M.A., Caldwell, R.R., Harris, M.A., Ivahnenko, T.I., Lovelace, J.K., Barber, N.L., and Linsey, K.S., 2018, Estimated use of water in the United States in 2015: U.S. Geological Survey Circular 1441, 65 p., https://doi.org/10.3133/cir1441. [Supersedes USGS Open-File Report 2017–1131.]

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1. **How many observations does it contain?**

It contains 3223 observations, but only added observations for each state will be used; 53 states are considered by taking into account states located in the United States, as well as some associated territories like Puerto Rico, the Virgin Islands, and Hawaii. In the end, 53 observations, one for each territory and some subsequent divisions for each type of water usage.

1. **What variables in that dataset will you analyze?**

General Irrigation, Irrigation of Crops, Irrigation in Golf Courses, and Production of Thermoelectric Energy, all measured in millions of gallons per day.

1. **What hypotheses or predictions will you test?**

I believe there is a direct correlation between water usage and the irrigation methods used, for example, flood irrigation will be the method with the highest overall water usage.