

STA 660 – Project 1

25 August 2008

Background:

The evaluation of human impact on receiving waters is of interest to environmental scientists. A three-year study of the quality of lakes in the western United States was initiated in 2000. At comparable depths, a lake supportive of aquatic life will have dissolved oxygen levels at relatively higher levels when compared to lakes less supportive of aquatic life. Eagle Lake, a relatively remote lake with little human impact, and Tahoe Keys, an area of Lake Tahoe with high amounts of boating and other human activity were studied. The data from these two sites are given below

```
data lake;
  input depth dis_oxygen lakeid $ @@;
  datalines;
    0 10.40      E    1  7.50      E    2  6.60      E
    3  6.10      E    4  5.70      E    5  5.40      E
    6  5.10      E   11  2.90      E   16  2.00      E
   21  1.20      E   26  1.00      E
    0  9.26      T    1  7.63      T    2  5.05      T
    3  2.52      T    4  1.95      T    5  1.47      T
;
```

Goal:

Assess whether we human impact has affected dissolved oxygen levels. By the way, dissolved oxygen varies with depth.