Analysis of Pilot Data

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EDA

```
d[ , .N]
```

```
## [1] 27
```

```
d[ , .(GROUP, Q8_1)]
```

```
##         GROUP Q8_1
##  1: TREAT_NEG    7
##  2: TREAT_POS    8
##  3:   CONTROL    2
##  4: TREAT_NEG    7
##  5: TREAT_POS   10
##  6:   CONTROL    8
##  7: TREAT_POS   NA
##  8: TREAT_NEG   10
##  9:   CONTROL    8
## 10: TREAT_NEG    7
## 11:   CONTROL   10
## 12: TREAT_POS   10
## 13: TREAT_POS    8
## 14: TREAT_NEG    8
## 15:   CONTROL    5
## 16: TREAT_NEG    7
## 17: TREAT_POS    9
## 18:   CONTROL    0
## 19: TREAT_NEG    7
## 20: TREAT_POS    5
## 21:   CONTROL    5
## 22:   CONTROL    8
## 23: TREAT_POS    5
## 24: TREAT_NEG   NA
## 25: TREAT_NEG    9
## 26:   CONTROL    6
## 27: TREAT_POS    3
##         GROUP Q8_1
```

We collected 27 data points during pilot.

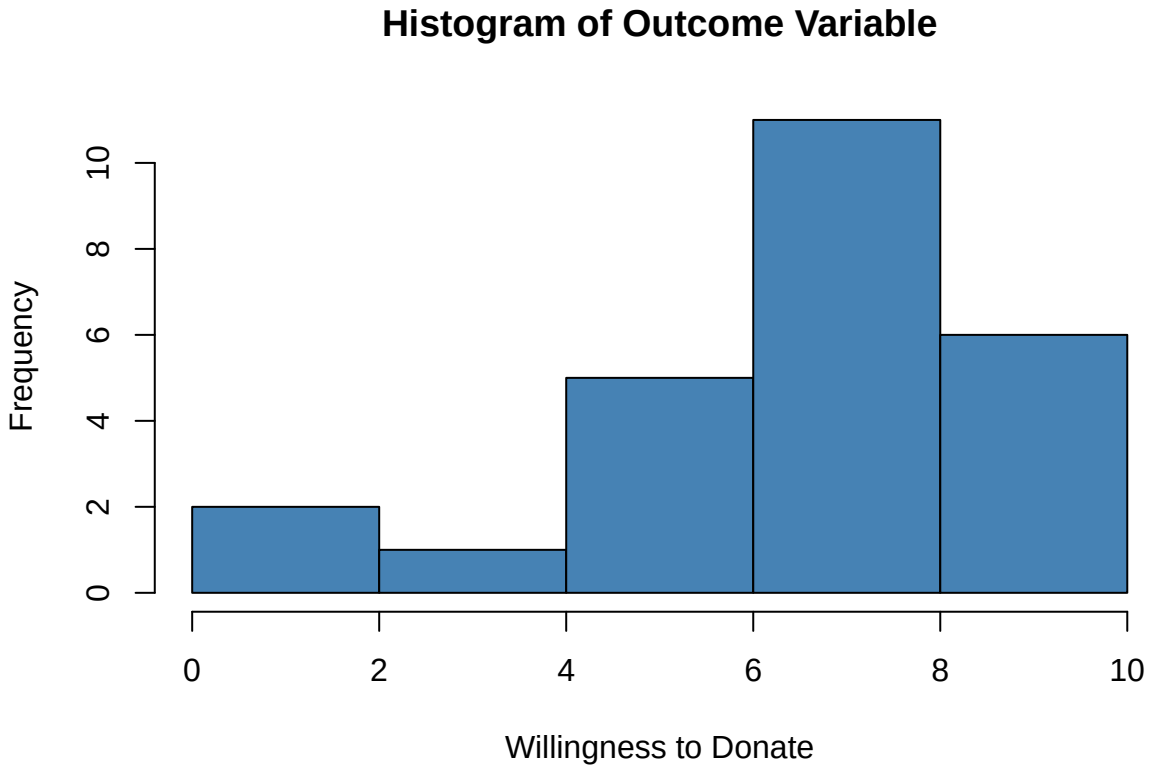
```
pilot_group_mean <- d[ , .(mean_donate = mean(Q8_1, na.rm = T), observations = .N), keyby = .(GROUP)]
pilot_group_mean
```

```
##        GROUP mean_donate observations
```

```
## 1:   CONTROL    5.777778           9
## 2: TREAT_NEG    7.750000           9
## 3: TREAT_POS    7.250000           9
```

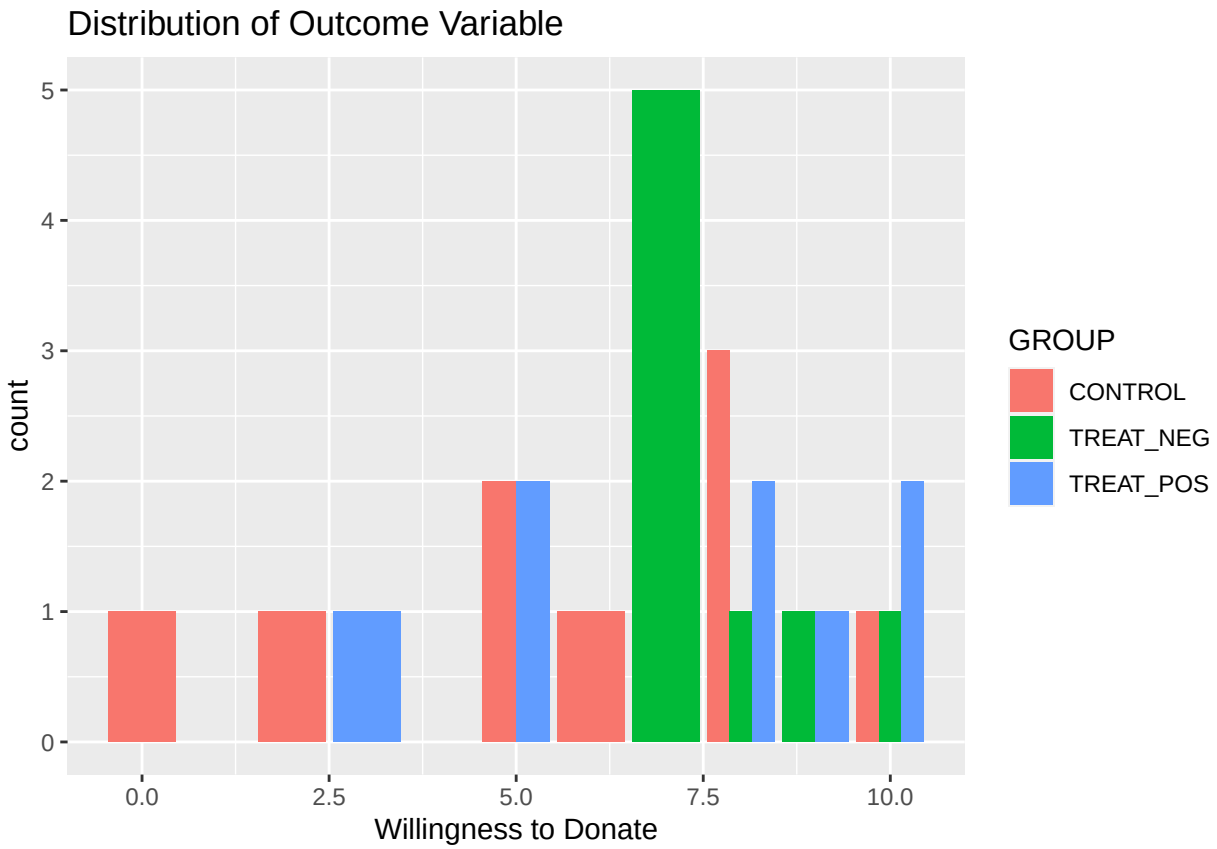
We have 9 people in each treatment groups and 9 people in the control group. Average willingness to donate for control group is lower than the test groups.

```
hist(
  d$Q8_1,
  col = 'steelblue',
  xlab = 'Willingness to Donate',
  main = 'Histogram of Outcome Variable'
  )
```




```
d %>%
  ggplot() +
  aes(x=Q8_1, fill = GROUP) +
  geom_bar(position='dodge') +
  labs(
    title = 'Distribution of Outcome Variable',
    x = 'Willingness to Donate'
  )
```

```
## Warning: Removed 2 rows containing non-finite values (stat_count).
```



Our histogram above shows the distribution of the outcome variable (i.e. willingness to donate which take values 0-10) which is skewed to the left. We also plotted a bar chart to show the distribution of the outcome variable by treatment and control groups which show control group's willingness to donate looks lower. This result is consistent with the averages we calculated above.