Purdue University

From the SelectedWorks of Peter J. Aschenbrenner

October, 2014

Table Annexed to Article: R Output in Support of Describing Delegate Behavior at Philadelphia: Predicting Recorded Voting Outcomes from Caucus Cohesion and Textual …

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Available at: https://works.bepress.com/peter_aschenbrenner/264/
TABLE ANNEXED TO ARTICLE:
R OUTPUT IN SUPPORT OF
DESCRIBING DELEGATE BEHAVIOR AT PHILADELPHIA:
PREDICTING RECORDED VOTING OUTCOMES
FROM CAUCUS COHESION AND TEXTUAL PREFERENCES
2 OCL 948_1

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TABLE 948_1A
DATA FROM SLAVE_OWNING DELEGATE VOTES ANALYZED USING
MULTIPLE LINEAR REGRESSION

setwd("C:/Main/History/2 OCL Articles/862 Bayes Bayes/Current for August 2014")
history<-read.table("history_no_spaces_k.csv", header = TRUE, sep = ",")
history$fStrongWeak<-factor(history$StrongWeak)
fit_test_2014_10_13<-lm(formula = Probability ~ sVote_t_1 + fStrongWeak, data = history)
summary(fit_test_2014_10_13)
Call: lm(formula = Probability ~ sVote_t_1 + fStrongWeak, data = history)

Residuals:

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Min</td>
<td>-0.36155</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1Q</td>
<td>-0.04836</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>-0.02353</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3Q</td>
<td>0.05400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max</td>
<td>0.20323</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coefficients:

|   | Estimate | Std. Error | t value | Pr(>|t|) |    |
|---|----------|------------|---------|----------|----|
| (Intercept) | 0.5742368 | 0.0591383 | 9.710 | 2.06e-09 *** |    |
| sVote_t_1 | 0.0007113 | 0.0004340 | 1.639 | 0.11548 |    |
| fStrongWeak1 | 0.1848898 | 0.0511495 | 3.615 | 0.00154 ** |    |

---

Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1224 on 22 degrees of freedom (122 observations deleted due to missingness)
Multiple R-squared: 0.4799, Adjusted R-squared: 0.4326 F-statistic: 10.15 on 2 and 22 DF, p-value: 0.0007535
setwd("C:/Main/History/2 OCL Articles/862 Bayes Bayes/Current for August 2014")
history<-read.table("history_for_nsos.csv", header = TRUE, sep = ",")
history$fStrongWeak<-factor(history$StrongWeak)
fit_test_2014_10_15<-lm(formula = Probability ~ sVote_t_1 + fStrongWeak, data = history)
summary(fit_test_2014_10_15)

Call:
  lm(formula = Probability ~ sVote_t_1 + fStrongWeak, data = history)

Residuals:
     Min      1Q  Median      3Q     Max
-0.296984 -0.156274  0.009115  0.167633  0.212185

Coefficients:            Estimate Std. Error   t value   Pr(>|t|)
  (Intercept)          8.021e-01  1.057e-01 7.589000 1.4e-07 ***
  sVote_t_1           -2.292e-05  1.963e-04 -0.117106 0.908439
  fStrongWeak1        1.271e-02  7.614e-02 0.166884 0.868713
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1861 on 22 degrees of freedom
(2 observations deleted due to missingness)
Multiple R-squared: 0.002261, Adjusted R-squared: -0.08844
F-statistic: 0.02493 on 2 and 22 DF, p-value: 0.9754
I ran the following code:

```r
setwd("C:/Main/History/2 OCL Articles/862 Bayes Bayes/Current for August 2014")
history<-read.table("history_no_spaces_k.csv", header = TRUE, sep = ",")
lmpvalue<-function(history)
{
  history$fStrongWeak <- factor(history$StrongWeak)
  result <- list()
  for(i in 1:1000)
  {
    history$fStrongWeak <- sample(x=c(0,1),size=25,replace=TRUE,prob=c(.50,.50))
    fit <- lm(formula = Probability ~ sVote_t_1 + fStrongWeak, data = history)
    f <- summary(fit)$fstatistic
    p <- pf(f[1],f[2],f[3],lower.tail=F)
    l <- list(FStatistic=f,Pvalue=p)
    result[[i]]<-list(StrongWeak=history$fStrongWeak,pvalue=l)
  }
  return(result)
}
lmpvalue(history)

There were no values at the < .0000 range.
These were the two reported as noted in the text.

```

<table>
<thead>
<tr>
<th></th>
<th>FStatistic</th>
<th>Pvalue</th>
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</thead>
<tbody>
<tr>
<td>value</td>
<td>numdf</td>
<td>dendf</td>
</tr>
<tr>
<td>11.26801</td>
<td>2.00000</td>
<td>22.0000</td>
</tr>
</tbody>
</table>

0.0004273887
The total output for a 1000 runs was 279 pages and 40K words.