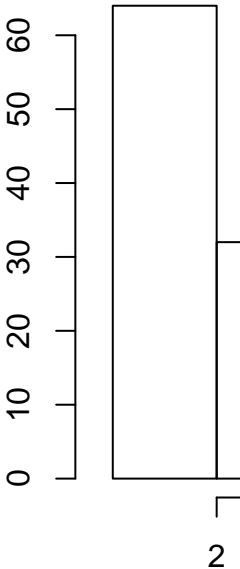
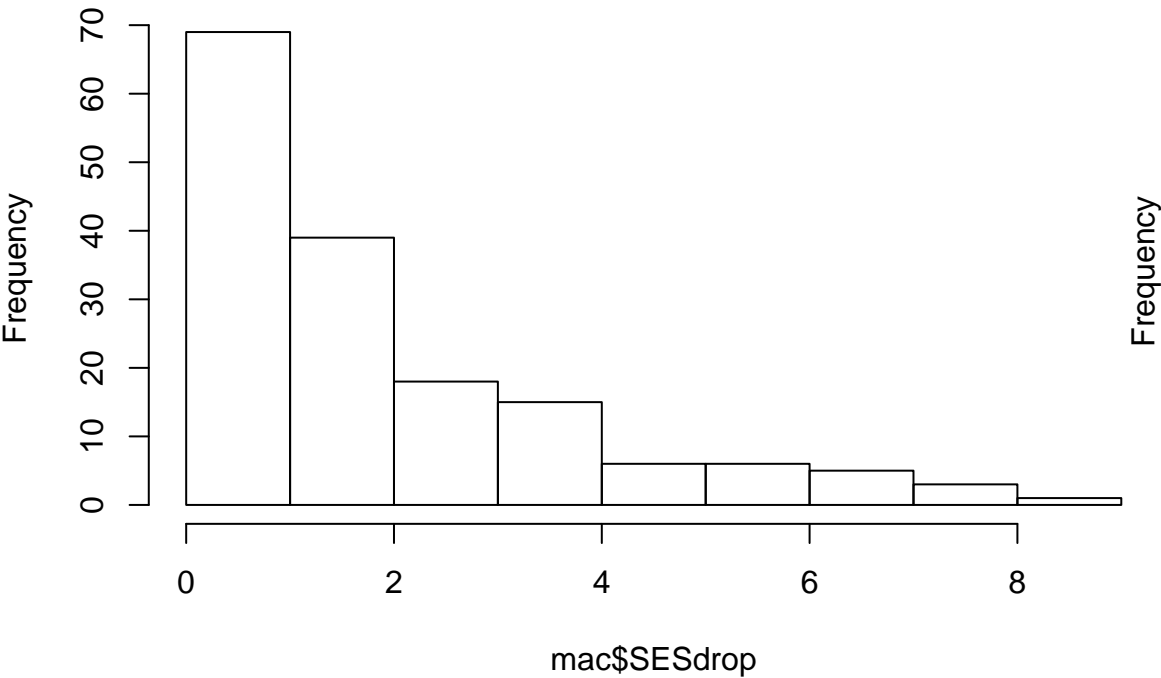
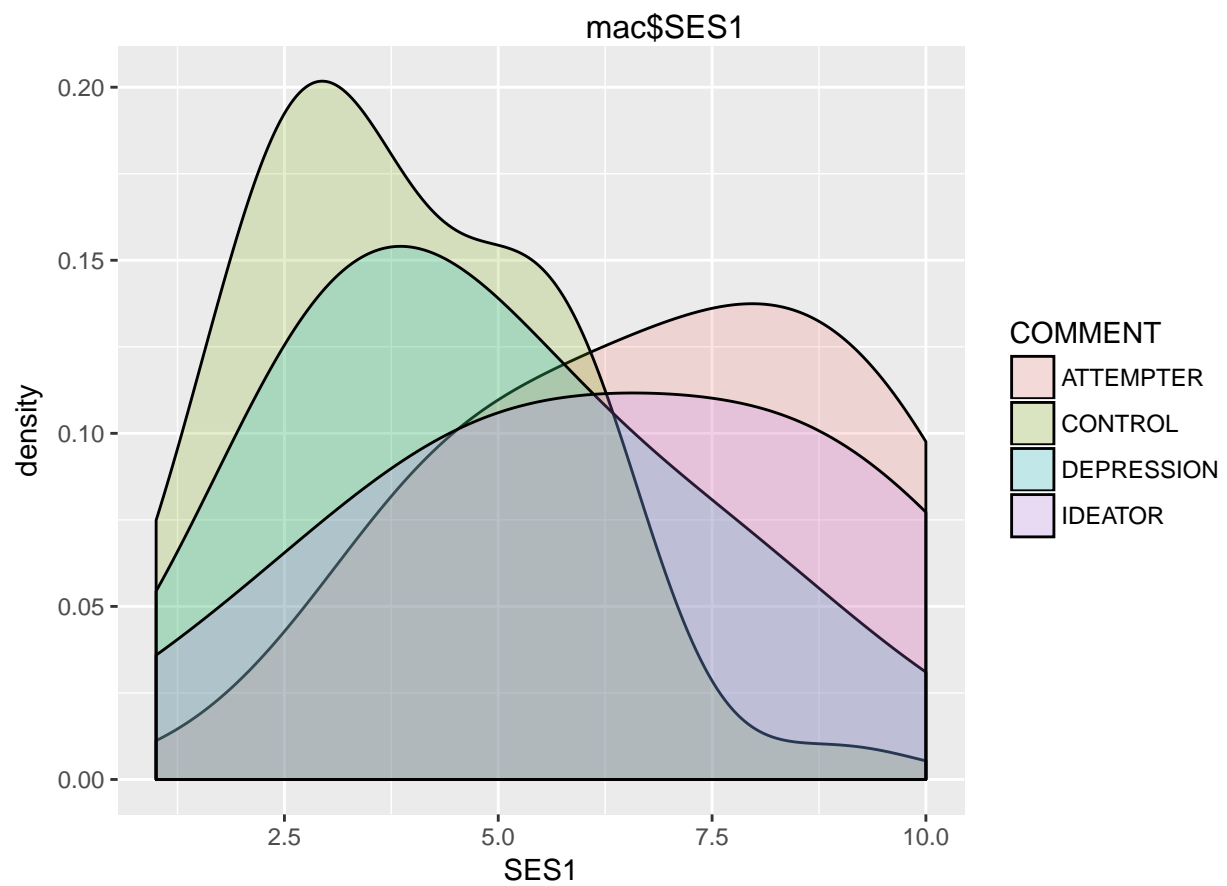
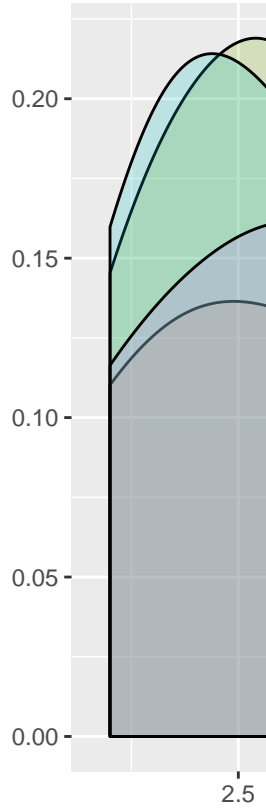
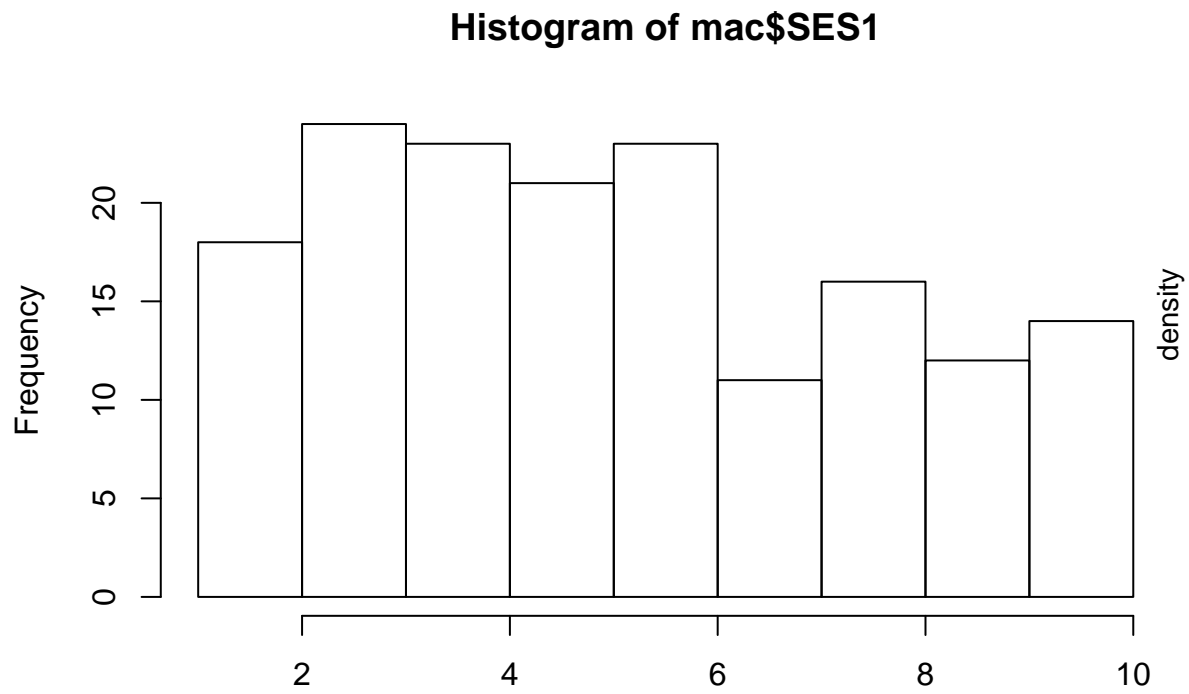


Status drop

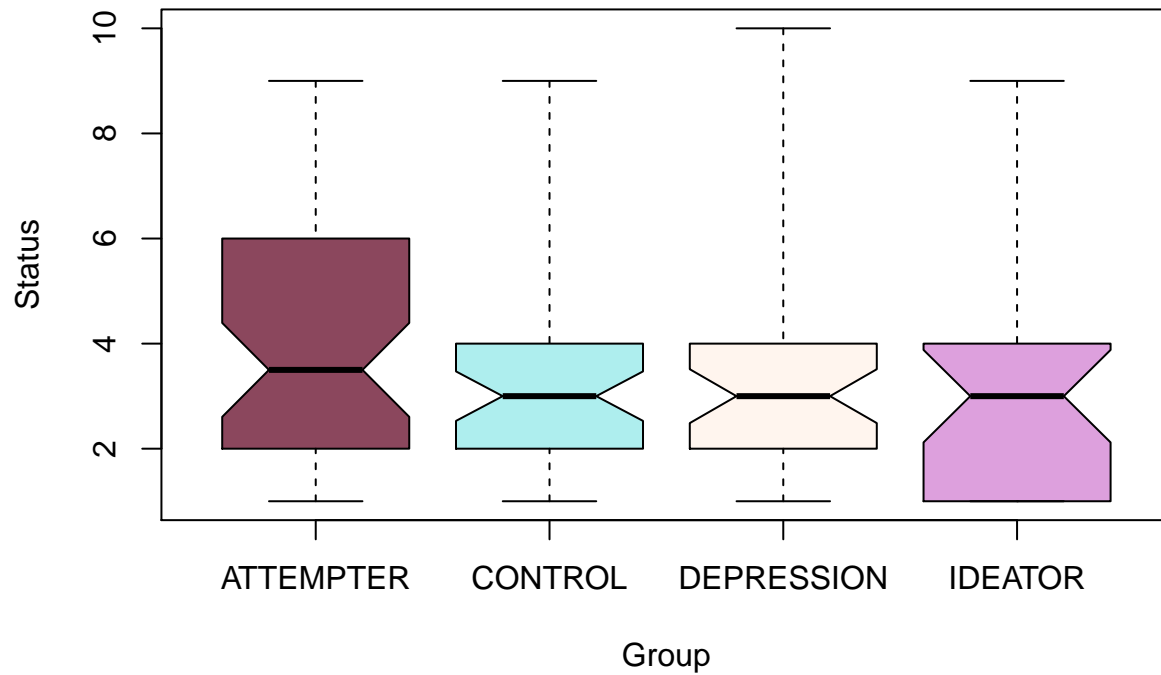
##	COMMENT	mean	sd
## 1	ATTEMPTER	5.512346	2.507721
## 2	CONTROL	5.512346	2.507721
## 3	DEPRESSION	5.512346	2.507721
## 4	IDEATOR	5.512346	2.507721
##	COMMENT	mean	sd
## 1	ATTEMPTER	2.135802	2.119141
## 2	CONTROL	2.135802	2.119141
## 3	DEPRESSION	2.135802	2.119141
## 4	IDEATOR	2.135802	2.119141

Histogram of mac\$SESdrop



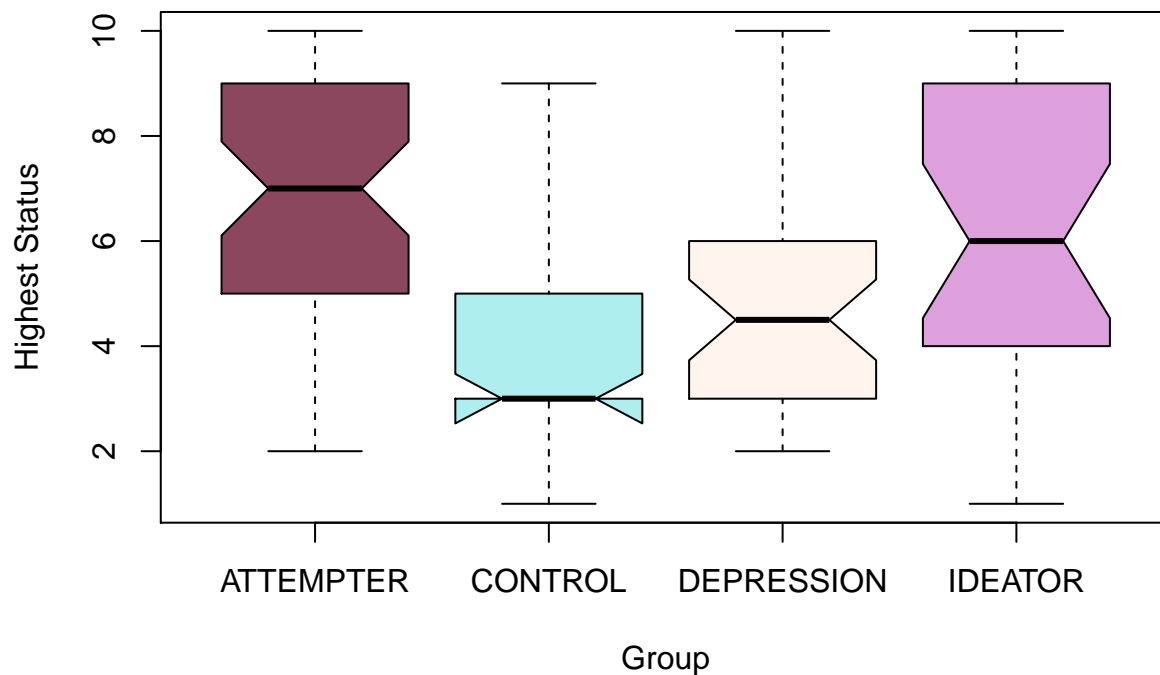


RAW MEDIAN DIFFERENCES STATUS



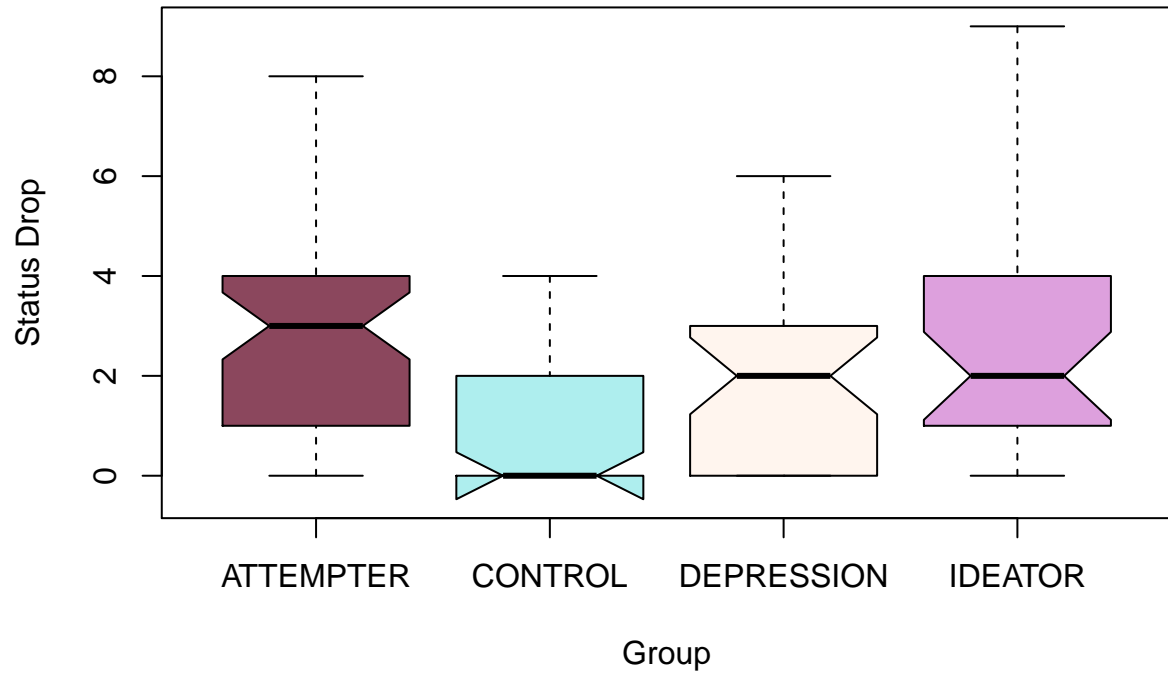
```
## Warning in bxp(structure(list(stats = structure(c(2, 5, 7, 9, 10, 1, 3, :
## some notches went outside hinges ('box'): maybe set notch=FALSE
```

RAW MEDIAN DIFFERENCES IN HIGHEST STATUS

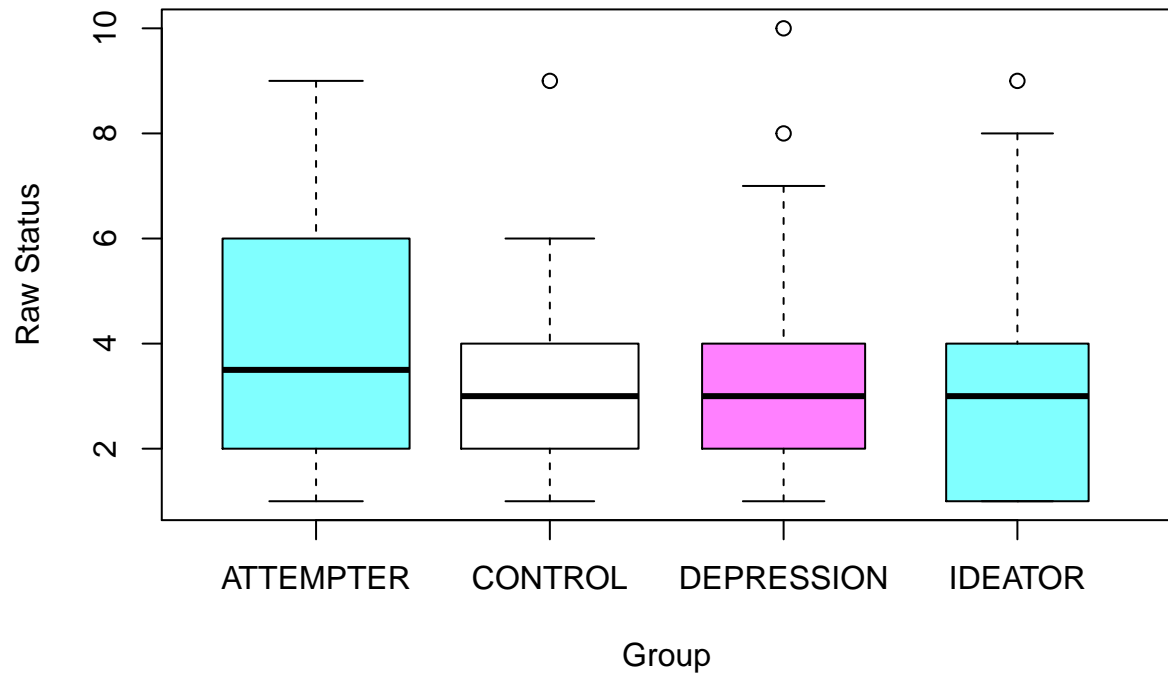


```
## Warning in bxp(structure(list(stats = structure(c(0, 1, 3, 4, 8, 0, 0, 0, :
## some notches went outside hinges ('box'): maybe set notch=FALSE
```

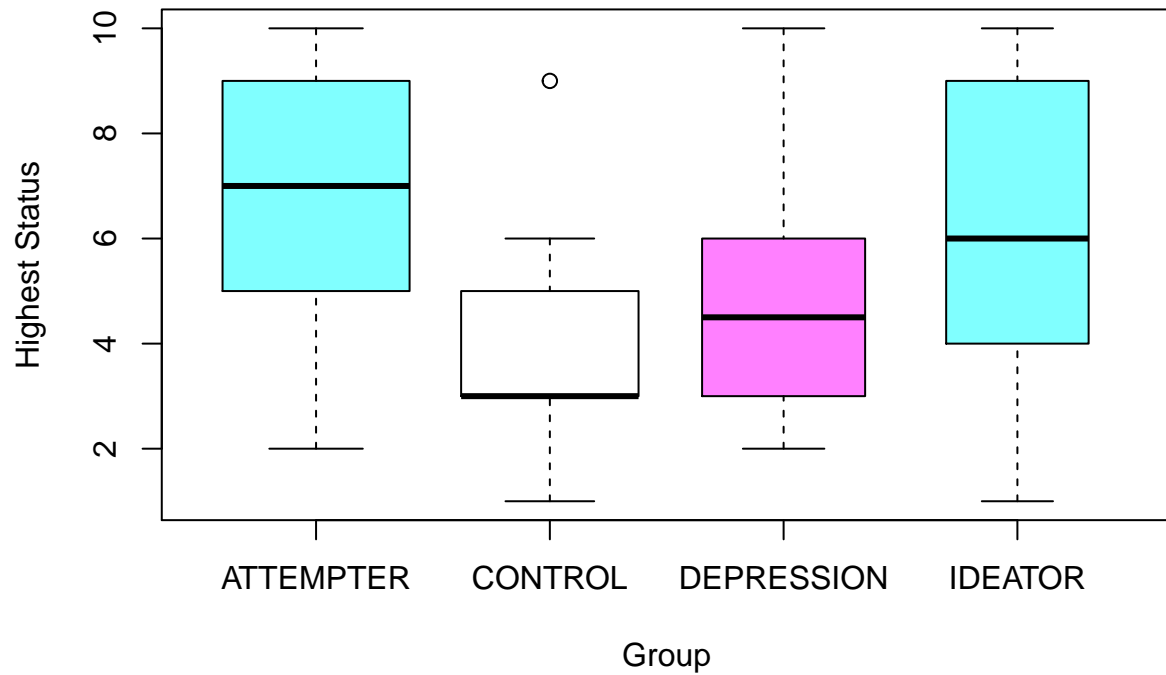
RAW MEDIAN DIFFERENCES IN HIGHEST STATUS



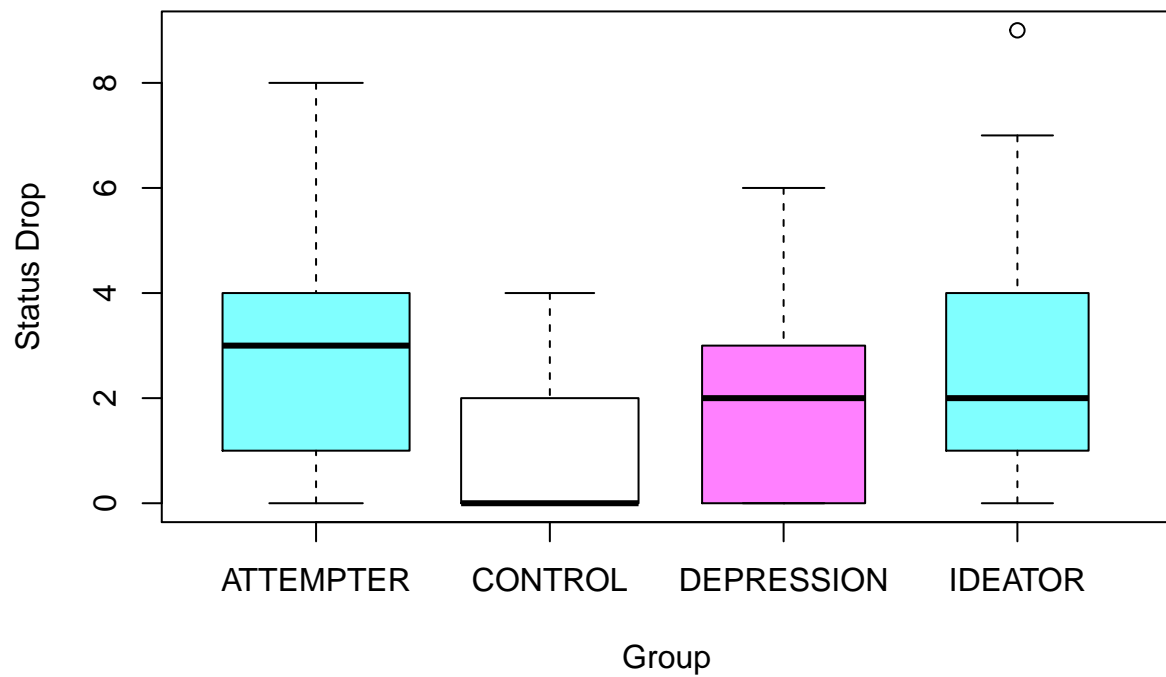
Raw Group Differences in Status



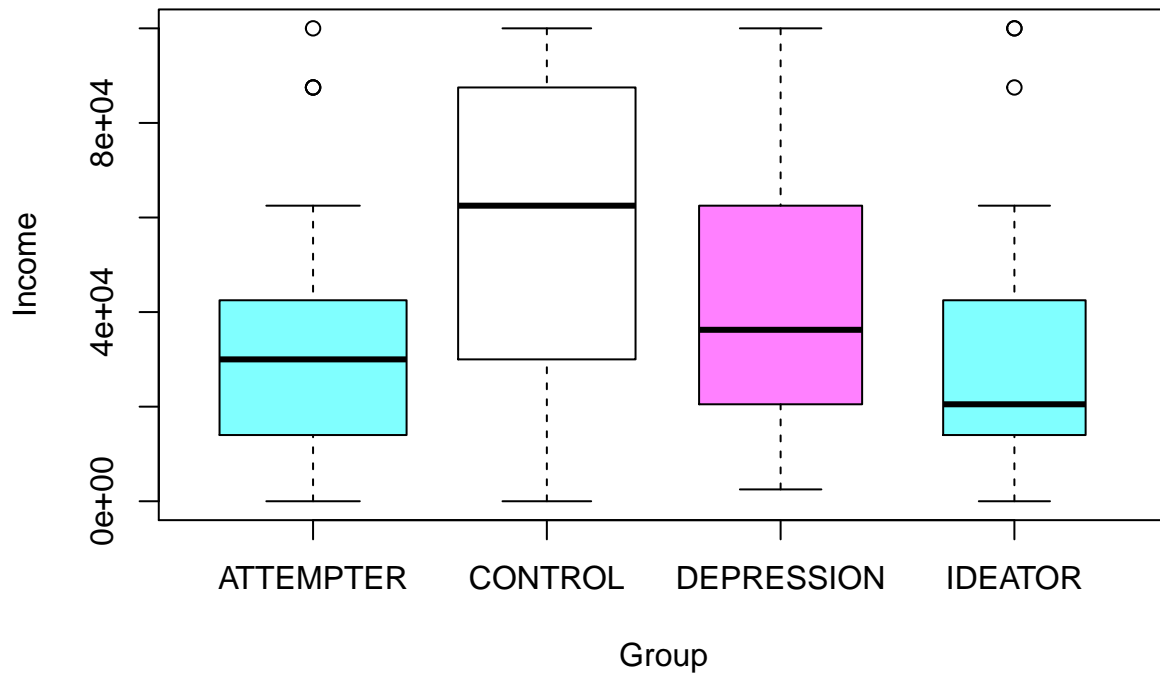
Raw Group Differences in Highest Status



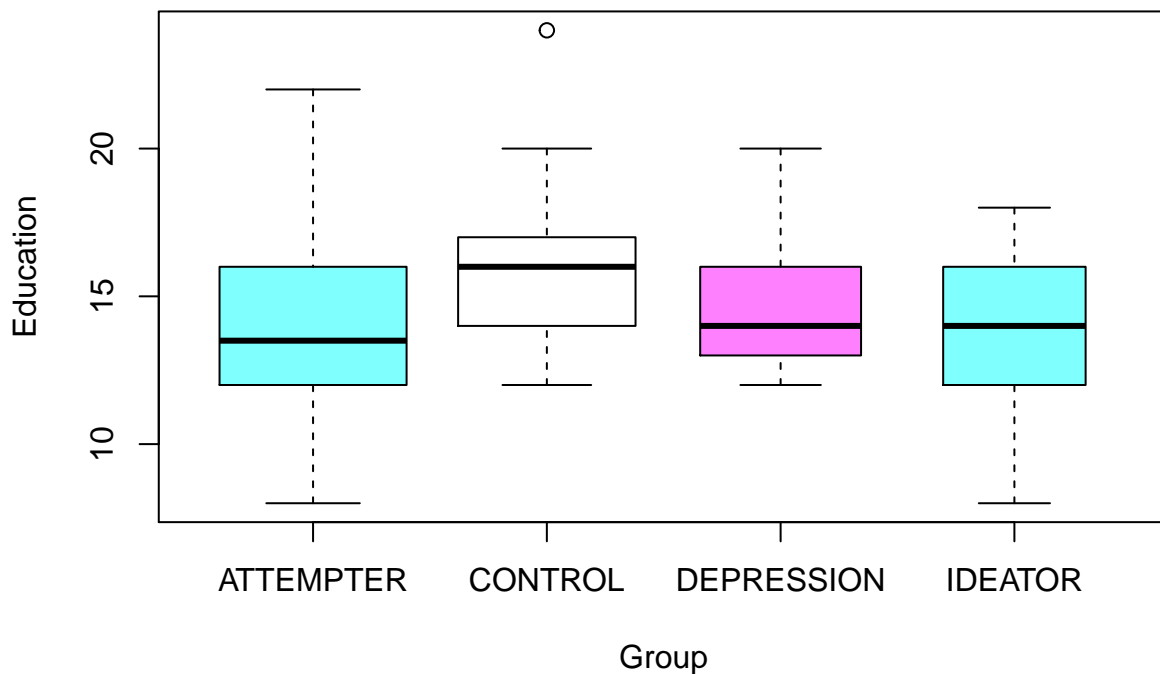
Raw Group Differences in Status Drop



Raw Group Differences in Income



Raw Group Differences in Education



```
# Healthy as reference group #####
# Only controls
summary(SES.onlyControlVars <- glm(SSESdrop ~ SES1 + age + SEX + INCOME,
  family = negative.binomial(theta = theta.SSESdrop), data = mac))
```

##

```
## Call:
## glm(formula = SESdrop ~ SES1 + age + SEX + INCOME, family = negative.binomial(theta = theta.SESdrop)
##      data = mac)
##
## Deviance Residuals:
##      Min       1Q   Median       3Q      Max
## -2.16578  -1.15936  -0.02083   0.49826   1.19486
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -4.241e-01  7.082e-01  -0.599   0.550
## SES1         2.419e-01  2.878e-02   8.405 2.43e-14 ***
## age         -4.691e-03  9.077e-03  -0.517   0.606
## SEXMALE      6.192e-02  1.278e-01   0.485   0.629
## INCOME      -1.336e-06  2.463e-06  -0.542   0.588
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for Negative Binomial(1.5507) family taken to be 0.5303763)
##
##      Null deviance: 187.26  on 161  degrees of freedom
## Residual deviance: 134.36  on 157  degrees of freedom
## AIC: 589
##
## Number of Fisher Scoring iterations: 5
```

```
# Just group controlling for highest status (SES1), no other controls
summary(SES <- glm(SESdrop ~ SES1
                  + attempters + ideators + depressed,
                  family = negative.binomial(theta = theta.SESdrop), data = mac))
```

```
##
## Call:
## glm(formula = SESdrop ~ SES1 + attempters + ideators + depressed,
##      family = negative.binomial(theta = theta.SESdrop), data = mac)
##
## Deviance Residuals:
##      Min       1Q   Median       3Q      Max
## -2.0854  -1.0474  -0.0199   0.4727   1.3360
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -1.0360     0.1914  -5.413 2.28e-07 ***
## SES1          0.2059     0.0286   7.198 2.38e-11 ***
## attempters    0.6576     0.1987   3.309 0.00116 **
## ideators      0.6419     0.2142   2.998 0.00317 **
## depressed     0.5358     0.1989   2.694 0.00783 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for Negative Binomial(1.5507) family taken to be 0.5155309)
##
##      Null deviance: 187.26  on 161  degrees of freedom
## Residual deviance: 128.23  on 157  degrees of freedom
## AIC: 582.87
```

```
##
## Number of Fisher Scoring iterations: 5
# Controlling for highest status
summary(SES.c <- glm(SESdrop ~ SES1 + age + SEX + INCOME
                     + attempters + ideators + depressed,
                     family = negative.binomial(theta = theta.SESdrop), data = mac))

##
## Call:
## glm(formula = SESdrop ~ SES1 + age + SEX + INCOME + attempters +
##      ideators + depressed, family = negative.binomial(theta = theta.SESdrop),
##      data = mac)
##
## Deviance Residuals:
##      Min       1Q   Median       3Q      Max
## -2.08300  -1.05695  -0.02218   0.48082   1.42760
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -9.346e-01  7.393e-01  -1.264  0.20805
## SES1         2.070e-01  3.116e-02   6.645 4.95e-10 ***
## age        -2.461e-03  9.208e-03  -0.267  0.78959
## SEXMALE     6.999e-03  1.302e-01   0.054  0.95721
## INCOME      1.004e-06  2.589e-06   0.388  0.69870
## attempters  6.687e-01  2.076e-01   3.221  0.00156 **
## ideators    6.614e-01  2.264e-01   2.921  0.00401 **
## depressed   5.465e-01  2.084e-01   2.622  0.00961 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for Negative Binomial(1.5507) family taken to be 0.5303366)
##
##      Null deviance: 187.26  on 161  degrees of freedom
## Residual deviance: 128.09  on 154  degrees of freedom
## AIC: 588.72
##
## Number of Fisher Scoring iterations: 5
# Depressed as reference group #####

# Only controls
summary(SES2.onlyControlVars <- glm(SESdrop ~ SES1 + age + SEX + INCOME,
                                   family = negative.binomial(theta = theta.SESdrop.nc), data = mac.nocontrols))

##
## Call:
## glm(formula = SESdrop ~ SES1 + age + SEX + INCOME, family = negative.binomial(theta = theta.SESdrop.,
##      data = mac.nocontrols)
##
## Deviance Residuals:
##      Min       1Q   Median       3Q      Max
## -2.33746  -1.01476   0.02815   0.50496   1.09488
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
```



```
## (Intercept) -3.356e-01  7.270e-01  -0.462    0.645
## SES1        2.077e-01  2.928e-02   7.094 1.25e-10 ***
## age         -1.888e-03  9.386e-03  -0.201    0.841
## SEXMALE     -7.150e-02  1.298e-01  -0.551    0.583
## INCOME       1.909e-06  2.748e-06   0.694    0.489
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for Negative Binomial(2.5011) family taken to be 0.5813873)
##
## Null deviance: 139.56  on 116  degrees of freedom
## Residual deviance: 104.26  on 112  degrees of freedom
## AIC: 462.09
##
## Number of Fisher Scoring iterations: 5

# Just group controlling for highest status (SES1), no other controls
summary(SSES2 <- glm(SSESdrop ~ SES1
                    + dc.att + dc.id,
                    family = negative.binomial(theta = theta.SSESdrop.nc), data = mac.nocontrols))

##
## Call:
## glm(formula = SSESdrop ~ SES1 + dc.att + dc.id, family = negative.binomial(theta = theta.SSESdrop.nc),
## data = mac.nocontrols)
##
## Deviance Residuals:
##      Min       1Q   Median       3Q      Max
## -2.27866  -0.94730   0.02817   0.50610   1.20246
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.44878    0.19593  -2.291  0.0238 *
## SES1         0.19663    0.02803   7.015 1.79e-10 ***
## dc.att       0.13204    0.16182   0.816  0.4162
## dc.id        0.12588    0.17923   0.702  0.4839
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for Negative Binomial(2.5011) family taken to be 0.5686829)
##
## Null deviance: 139.56  on 116  degrees of freedom
## Residual deviance: 104.24  on 113  degrees of freedom
## AIC: 460.07
##
## Number of Fisher Scoring iterations: 5

# With groups and control variables
summary(SSES2.c <- glm(SSESdrop ~ SES1 + age + SEX + INCOME
                    + dc.att + dc.id
                    + age + SEX + INCOME,
                    family = negative.binomial(theta = theta.SSESdrop.nc), data = mac.nocontrols))

##
## Call:
```

```
## glm(formula = SESdrop ~ SES1 + age + SEX + INCOME + dc.att +
##      dc.id + age + SEX + INCOME, family = negative.binomial(theta = theta.SESdrop.nc),
##      data = mac.nocontrols)
##
## Deviance Residuals:
##      Min        1Q      Median        3Q        Max
## -2.25392  -1.02727   0.03788   0.48196   1.14698
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -4.017e-01  7.388e-01  -0.544    0.588
## SES1         2.001e-01  3.094e-02   6.467 2.85e-09 ***
## age        -1.712e-03  9.479e-03  -0.181    0.857
## SEXMALE     -6.427e-02  1.310e-01  -0.491    0.625
## INCOME       2.097e-06  2.776e-06   0.755    0.452
## dc.att       1.281e-01  1.653e-01   0.775    0.440
## dc.id        1.392e-01  1.832e-01   0.760    0.449
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for Negative Binomial(2.5011) family taken to be 0.5890748)
##
##      Null deviance: 139.56  on 116  degrees of freedom
## Residual deviance: 103.82  on 110  degrees of freedom
## AIC: 465.65
##
## Number of Fisher Scoring iterations: 6
```

```
# Controlling for highest status (effect can vary across group, interaction) age sex income control
summary(SES.cInt <- glm(SESdrop ~ SES1 + age + SEX + INCOME
+ attempters + ideators + depressed
+ SES1:attempters + SES1:ideators + SES1:depressed,
family = negative.binomial(theta = theta.SESdrop), data = mac))
```

```
##
## Call:
## glm(formula = SESdrop ~ SES1 + age + SEX + INCOME + attempters +
##      ideators + depressed + SES1:attempters + SES1:ideators +
##      SES1:depressed, family = negative.binomial(theta = theta.SESdrop),
##      data = mac)
##
## Deviance Residuals:
##      Min        1Q      Median        3Q        Max
## -2.12287  -1.02702  -0.00432   0.49731   1.34049
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -1.216e+00  8.033e-01  -1.514   0.13210
## SES1          2.704e-01  8.610e-02   3.140   0.00203 **
## age        -2.770e-03  9.366e-03  -0.296   0.76785
## SEXMALE      8.360e-03  1.314e-01   0.064   0.94937
## INCOME       1.512e-06  2.642e-06   0.572   0.56811
## attempters   1.342e+00  5.521e-01   2.431   0.01622 *
## ideators     6.009e-01  5.885e-01   1.021   0.30888
## depressed    7.393e-01  5.297e-01   1.396   0.16485
```

```

## SES1:attempters -1.175e-01  9.864e-02  -1.192  0.23528
## SES1:ideators  -1.309e-02  1.030e-01  -0.127  0.89899
## SES1:depressed -4.690e-02  1.037e-01  -0.452  0.65183
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for Negative Binomial(1.5507) family taken to be 0.5369194)
##
## Null deviance: 187.26  on 161  degrees of freedom
## Residual deviance: 126.73  on 151  degrees of freedom
## AIC: 593.37
##
## Number of Fisher Scoring iterations: 6
summary(SSES2.cInt <- glm(SSESdrop ~ SES1 + age + SEX + INCOME
+ dc.att + dc.id + SES1
+ age + SEX + INCOME
+ SES1:dc.att + SES1:dc.id,
family = negative.binomial(theta = theta.SSESdrop.nc), data = mac.nocontrols))

##
## Call:
## glm(formula = SSESdrop ~ SES1 + age + SEX + INCOME + dc.att +
## dc.id + SES1 + age + SEX + INCOME + SES1:dc.att + SES1:dc.id,
## family = negative.binomial(theta = theta.SSESdrop.nc), data = mac.nocontrols)
##
## Deviance Residuals:
## Min 1Q Median 3Q Max
## -2.31913 -1.10317  0.09343  0.50330  1.16791
##
## Coefficients:
## Estimate Std. Error t value Pr(>|t|)
## (Intercept) -5.527e-01  8.046e-01  -0.687  0.493625
## SES1 2.216e-01  5.656e-02  3.917  0.000157 ***
## age -1.548e-03  9.528e-03  -0.162  0.871272
## SEXMALE -6.687e-02  1.317e-01  -0.508  0.612616
## INCOME 2.697e-06  2.832e-06  0.952  0.343047
## dc.att 5.769e-01  4.702e-01  1.227  0.222523
## dc.id -1.327e-01  5.156e-01  -0.257  0.797372
## SES1:dc.att -6.640e-02  7.035e-02  -0.944  0.347391
## SES1:dc.id 3.481e-02  7.586e-02  0.459  0.647230
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for Negative Binomial(2.5011) family taken to be 0.5932537)
##
## Null deviance: 139.56  on 116  degrees of freedom
## Residual deviance: 102.50  on 108  degrees of freedom
## AIC: 468.33
##
## Number of Fisher Scoring iterations: 6
# INCOME
# Healthy as reference group
summary(income <- lm(INCOME ~ attempters + ideators + depressed, data = mac))

```

```
##
## Call:
## lm(formula = INCOME ~ attempters + ideators + depressed, data = mac)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -59922 -21159  -2379   20118  67621
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    59922      4199   14.272 < 2e-16 ***
## attempters    -26932      5787   -4.654 6.86e-06 ***
## ideators      -27543      6707   -4.107 6.42e-05 ***
## depressed     -17541      6205   -2.827 0.00531 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 28170 on 158 degrees of freedom
## Multiple R-squared:  0.1444, Adjusted R-squared:  0.1281
## F-statistic: 8.888 on 3 and 158 DF,  p-value: 1.771e-05
summary(income <- lm(INCOME ~ age + SEX + attempters + ideators + depressed, data = mac)) # Control age

##
## Call:
## lm(formula = INCOME ~ age + SEX + attempters + ideators + depressed,
##      data = mac)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -60266 -20085   -806   18645   60231
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  85579.6    20726.2    4.129 5.92e-05 ***
## age          -443.3      295.2   -1.502 0.13517
## SEXMALE       11571.0    4365.2    2.651 0.00886 **
## attempters   -29129.2    5723.8   -5.089 1.02e-06 ***
## ideators     -30471.8    6649.8   -4.582 9.36e-06 ***
## depressed    -20258.6    6123.3   -3.308 0.00116 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 27510 on 156 degrees of freedom
## Multiple R-squared:  0.1942, Adjusted R-squared:  0.1684
## F-statistic: 7.519 on 5 and 156 DF,  p-value: 2.383e-06
# Depressed as reference group
summary(income <- lm(INCOME ~ dc.att + dc.id, data = mac.nocontrols))

##
## Call:
## lm(formula = INCOME ~ dc.att + dc.id, data = mac.nocontrols)
##
## Residuals:
```

```
##      Min      1Q Median      3Q      Max
## -39882 -18990 -2990  10121  67621
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    42382      4262    9.944 <2e-16 ***
## dc.att         -9392      5654   -1.661  0.0994 .
## dc.id          -10002      6478   -1.544  0.1253
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 26270 on 114 degrees of freedom
## Multiple R-squared:  0.02935,    Adjusted R-squared:  0.01232
## F-statistic: 1.724 on 2 and 114 DF,  p-value: 0.183
summary(income <- lm(INCOME ~ age + SEX + dc.att + dc.id, data = mac.nocontrols)) # Control age sex

##
## Call:
## lm(formula = INCOME ~ age + SEX + dc.att + dc.id, data = mac.nocontrols)
##
## Residuals:
##      Min      1Q Median      3Q      Max
## -45112 -18140 -5268  14712  62902
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  48145.8    23054.9    2.088  0.0390 *
## age          -159.2     334.9   -0.475  0.6354
## SEXMALE       8431.3     4855.0    1.737  0.0852 .
## dc.att        -8781.4     5663.5   -1.551  0.1238
## dc.id         -9814.2     6487.1   -1.513  0.1331
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 26120 on 112 degrees of freedom
## Multiple R-squared:  0.05715,    Adjusted R-squared:  0.02347
## F-statistic: 1.697 on 4 and 112 DF,  p-value: 0.1556
# Education
# Healthy as reference group
summary(education <- lm(edu ~ attempters + ideators + depressed, data = mac))

##
## Call:
## lm(formula = edu ~ attempters + ideators + depressed, data = mac)
##
## Residuals:
##      Min      1Q Median      3Q      Max
## -6.3103 -1.6667  0.2973  1.6897  8.3600
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   15.6667     0.3981  39.358 < 2e-16 ***
## attempters    -2.0267     0.5487  -3.694 0.000305 ***
```

```
## ideators      -1.3563      0.6359  -2.133 0.034476 *
## depressed     -0.9640      0.5926  -1.627 0.105806
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.67 on 157 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.08198, Adjusted R-squared:  0.06444
## F-statistic: 4.674 on 3 and 157 DF, p-value: 0.00372
```

```
summary(education <- lm(edu ~ age + SEX + attempters + ideators + depressed, data = mac)) # Control age
```

```
##
## Call:
## lm(formula = edu ~ age + SEX + attempters + ideators + depressed,
##     data = mac)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -5.2709 -2.0485 -0.0526  1.5679  8.1682
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  20.87230    1.98372  10.522 < 2e-16 ***
## age          -0.07797    0.02824  -2.760  0.00647 **
## SEXMALE       0.30163    0.41649   0.724  0.47003
## attempters   -2.27437    0.54472  -4.175 4.95e-05 ***
## ideators     -1.66820    0.63285  -2.636  0.00924 **
## depressed    -1.14784    0.58681  -1.956  0.05225 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.618 on 155 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.129, Adjusted R-squared:  0.1009
## F-statistic: 4.591 on 5 and 155 DF, p-value: 0.0006207
```

```
  # Depressed as reference group
summary(education <- lm(edu ~ dc.att + dc.id, data = mac.nocontrols))
```

```
##
## Call:
## lm(formula = edu ~ dc.att + dc.id, data = mac.nocontrols)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -6.3103 -1.7027 -0.3103  1.6897  8.3600
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  14.7027    0.4449  33.049 <2e-16 ***
## dc.att       -1.0627    0.5868  -1.811  0.0728 .
## dc.id        -0.3924    0.6711  -0.585  0.5600
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
## Residual standard error: 2.706 on 113 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared: 0.02939, Adjusted R-squared: 0.01221
## F-statistic: 1.711 on 2 and 113 DF, p-value: 0.1854
summary(education <- lm(edu ~ dc.att + dc.id, data = mac.nocontrols)) # Control age sex
```

```
##
## Call:
## lm(formula = edu ~ dc.att + dc.id, data = mac.nocontrols)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -6.3103 -1.7027 -0.3103  1.6897  8.3600
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  14.7027     0.4449  33.049  <2e-16 ***
## dc.att       -1.0627     0.5868  -1.811  0.0728 .
## dc.id        -0.3924     0.6711  -0.585  0.5600
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.706 on 113 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared: 0.02939, Adjusted R-squared: 0.01221
## F-statistic: 1.711 on 2 and 113 DF, p-value: 0.1854
```

```
# INCOME
# Healthy as reference group
summary(highest <- lm(SSES1 ~ attempters + ideators + depressed, data = mac))
```

```
##
## Call:
## lm(formula = SSES1 ~ attempters + ideators + depressed, data = mac)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -5.310 -1.889  0.040  2.040  5.111
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   3.8889     0.3264  11.916  < 2e-16 ***
## attempters    3.0711     0.4499   6.827 1.76e-10 ***
## ideators      2.4215     0.5213   4.645 7.13e-06 ***
## depressed     1.0322     0.4823   2.140 0.0339 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.189 on 158 degrees of freedom
## Multiple R-squared: 0.252, Adjusted R-squared: 0.2378
## F-statistic: 17.74 on 3 and 158 DF, p-value: 5.626e-10
```

```
summary(highest <- lm(SSES1 ~ age + SEX + edu + attempters + ideators + depressed, data = mac)) # Contro
```

```
##
## Call:
## lm(formula = SES1 ~ age + SEX + edu + attempters + ideators +
##     depressed, data = mac)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.9169 -1.5979 -0.0573  1.9031  4.8058
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  10.82484    2.10871   5.133 8.47e-07 ***
## age          -0.06751    0.02349  -2.874 0.004623 **
## SEXMALE      -0.34560    0.33872  -1.020 0.309178
## edu          -0.13952    0.06521  -2.139 0.033975 *
## attempters   2.62241    0.46647   5.622 8.65e-08 ***
## ideators     2.03332    0.52520   3.872 0.000159 ***
## depressed    0.91908    0.48227   1.906 0.058548 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.125 on 154 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.3044, Adjusted R-squared:  0.2773
## F-statistic: 11.23 on 6 and 154 DF, p-value: 2.194e-10
## alex -- other predictors of highest status: NEO
summary(highest <- lm(SES1 ~ age + SEX + edu + neurotic + extrav + open + agree + consc, data = mac)) #
##
## Call:
## lm(formula = SES1 ~ age + SEX + edu + neurotic + extrav + open +
##     agree + consc, data = mac)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.2367 -1.5390 -0.2656  1.2837  5.1493
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   6.80595    4.24967   1.602 0.112237
## age           -0.05819    0.03045  -1.911 0.058682 .
## SEXMALE       0.15316    0.41968   0.365 0.715876
## edu           -0.18757    0.08566  -2.190 0.030742 *
## neurotic      0.09127    0.02612   3.495 0.000694 ***
## extrav        -0.01141    0.03361  -0.340 0.734782
## open          -0.04152    0.05883  -0.706 0.481857
## agree         0.07224    0.05074   1.424 0.157443
## consc         0.01344    0.03240   0.415 0.679244
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.174 on 106 degrees of freedom
## (47 observations deleted due to missingness)
## Multiple R-squared:  0.2871, Adjusted R-squared:  0.2333
```



```
## F-statistic: 5.336 on 8 and 106 DF, p-value: 1.226e-05
```

```
# regret
```

```
summary(highest <- lm(SES1 ~ age + SEX + edu + REGRETSUBSCALE + MAXIMIZINGSUBSCALE, data = mac)) # Contr
```

```
##
```

```
## Call:
```

```
## lm(formula = SES1 ~ age + SEX + edu + REGRETSUBSCALE + MAXIMIZINGSUBSCALE,  
## data = mac)
```

```
##
```

```
## Residuals:
```

```
## Min 1Q Median 3Q Max  
## -4.6991 -1.7489 -0.0858 1.4430 4.8107
```

```
##
```

```
## Coefficients:
```

```
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 10.94032 2.58413 4.234 4.08e-05 ***  
## age -0.07593 0.02619 -2.899 0.00433 **  
## SEXMALE -0.30944 0.38599 -0.802 0.42406  
## edu -0.22322 0.06943 -3.215 0.00161 **  
## REGRETSUBSCALE 0.17779 0.05630 3.158 0.00194 **  
## MAXIMIZINGSUBSCALE 0.01383 0.02667 0.519 0.60472
```

```
## ---
```

```
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
```

```
## Residual standard error: 2.236 on 144 degrees of freedom
```

```
## (12 observations deleted due to missingness)
```

```
## Multiple R-squared: 0.2249, Adjusted R-squared: 0.198
```

```
## F-statistic: 8.359 on 5 and 144 DF, p-value: 5.807e-07
```

```
# check using current SES -- I predict REGRET would not be significant
```

```
summary(current <- lm(SES ~ age + SEX + edu + REGRETSUBSCALE + MAXIMIZINGSUBSCALE, data = mac)) # Contr
```

```
##
```

```
## Call:
```

```
## lm(formula = SES ~ age + SEX + edu + REGRETSUBSCALE + MAXIMIZINGSUBSCALE,  
## data = mac)
```

```
##
```

```
## Residuals:
```

```
## Min 1Q Median 3Q Max  
## -3.9578 -1.3801 -0.2572 1.0535 6.1922
```

```
##
```

```
## Coefficients:
```

```
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 7.870154 2.358790 3.337 0.001079 **  
## age -0.031012 0.023908 -1.297 0.196645  
## SEXMALE -0.189380 0.352332 -0.538 0.591748  
## edu -0.217124 0.063375 -3.426 0.000798 ***  
## REGRETSUBSCALE 0.001088 0.051393 0.021 0.983138  
## MAXIMIZINGSUBSCALE 0.024222 0.024342 0.995 0.321371
```

```
## ---
```

```
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
```

```
## Residual standard error: 2.041 on 144 degrees of freedom
```

```
## (12 observations deleted due to missingness)
```

```
## Multiple R-squared: 0.1057, Adjusted R-squared: 0.07468
```

```
## F-statistic: 3.405 on 5 and 144 DF, p-value: 0.006146
summary(highest <- lm(SES1 ~ SES + age + SEX + edu + REGRETSUBSCALE + MAXIMIZINGSUBSCALE, data = mac))

##
## Call:
## lm(formula = SES1 ~ SES + age + SEX + edu + REGRETSUBSCALE +
##     MAXIMIZINGSUBSCALE, data = mac)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -3.9714 -1.3475 -0.3567  1.0371  5.1383
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    6.300166   2.268499   2.777 0.006218 **
## SES             0.589589   0.077214   7.636 2.93e-12 ***
## age            -0.057643   0.022281  -2.587 0.010677 *
## SEXMALE        -0.197787   0.326788  -0.605 0.545976
## edu            -0.095202   0.061068  -1.559 0.121218
## REGRETSUBSCALE  0.177149   0.047619   3.720 0.000285 ***
## MAXIMIZINGSUBSCALE -0.000447  0.022632  -0.020 0.984269
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.891 on 143 degrees of freedom
## (12 observations deleted due to missingness)
## Multiple R-squared:  0.4494, Adjusted R-squared:  0.4263
## F-statistic: 19.45 on 6 and 143 DF, p-value: < 2.2e-16

# Depressed as reference group
summary(highest <- lm(SES1 ~ dc.att + dc.id, data = mac.nocontrols))

##
## Call:
## lm(formula = SES1 ~ dc.att + dc.id, data = mac.nocontrols)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -5.310 -1.921  0.040  2.040  5.079
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    4.9211     0.3804  12.936 < 2e-16 ***
## dc.att         2.0389     0.5047   4.040 9.73e-05 ***
## dc.id          1.3893     0.5782   2.403  0.0179 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.345 on 114 degrees of freedom
## Multiple R-squared:  0.1267, Adjusted R-squared:  0.1113
## F-statistic: 8.267 on 2 and 114 DF, p-value: 0.0004439

summary(highest <- lm(SES1 ~ age + SEX + dc.att + dc.id, data = mac.nocontrols)) # Control age sex

##
```

```
## Call:
## lm(formula = SES1 ~ age + SEX + dc.att + dc.id, data = mac.nocontrols)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.8158 -1.5880 -0.1034  2.1258  5.2481
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  10.88745    2.00651   5.426 3.37e-07 ***
## age          -0.08620    0.02915  -2.957  0.00379 **
## SEXMALE      -0.35161    0.42254  -0.832  0.40711
## dc.att        1.88285    0.49290   3.820  0.00022 ***
## dc.id         1.18776    0.56458   2.104  0.03763 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.274 on 112 degrees of freedom
## Multiple R-squared:  0.1935, Adjusted R-squared:  0.1647
## F-statistic: 6.718 on 4 and 112 DF, p-value: 6.97e-05

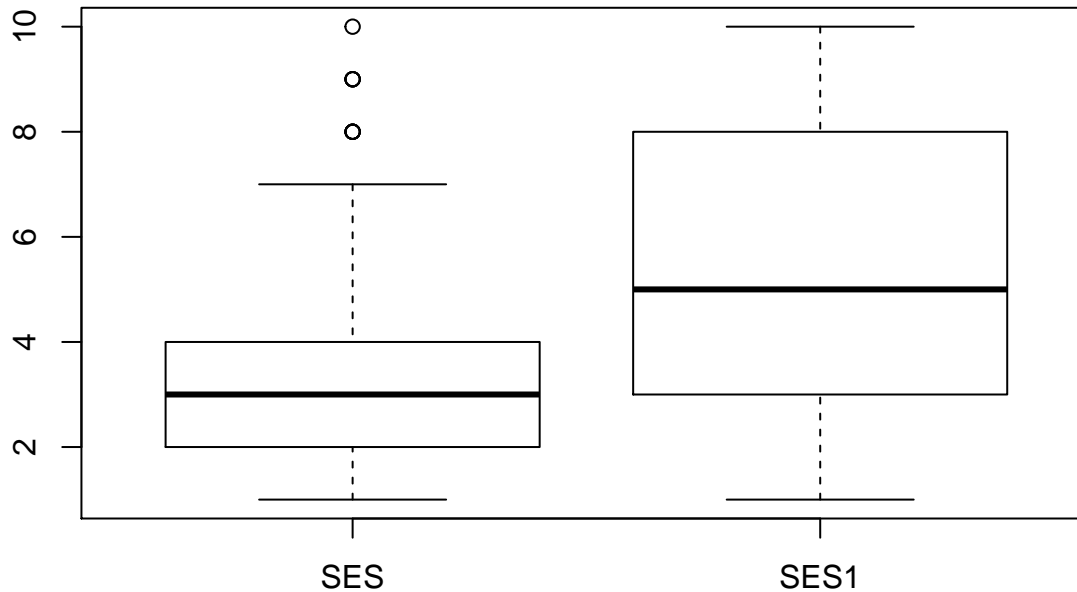
library(reshape)

##
## Attaching package: 'reshape'

## The following objects are masked from 'package:plyr':
##
##      rename, round_any

## The following object is masked from 'package:Matrix':
##
##      expand

#id.vars = names(m)
#grep("SES", id.vars)
#grep("SES1", id.vars)
#id.vars = id.vars[-grep("SES") & -grep("SES1"),]
m = melt(mac, na.rm = FALSE, measure.vars = c("SES", "SES1"), value.name = c("SES"))
plot(m$variable, m$value)
```



```
m$SES <- m$value
m$time[m$variable == "SES1"] <- "current"
m$time[m$variable == "SES"] <- "high"
m$grp_leth[m$GROUP12467 == 1] <- "HC"
m$grp_leth[m$GROUP12467 == 2] <- "DC"
m$grp_leth[m$GROUP12467 == 4] <- "I"
m$grp_leth[m$GROUP12467 == 6] <- "LL"
m$grp_leth[m$GROUP12467 == 7] <- "HL"

# full demo predictors
summary(m1 <- lmer(SES ~ edu*time + age*time + INCOMEcst*time + SEX*time
  + RACE*time+ (1|ID), data = m, na.omit = TRUE))
```

```
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
## Warning: extra argument(s) 'na.omit' disregarded
```

```

## Warning: extra argument(s) 'na.omit' disregarded

## Warning: extra argument(s) 'na.omit' disregarded

## Warning: extra argument(s) 'na.omit' disregarded

## Warning: extra argument(s) 'na.omit' disregarded

## Warning: extra argument(s) 'na.omit' disregarded

## Linear mixed model fit by REML t-tests use Satterthwaite approximations
## to degrees of freedom [lmerMod]
## Formula: SES ~ edu * time + age * time + INCOMEcst * time + SEX * time +
## RACE * time + (1 | ID)
## Data: m
##
## REML criterion at convergence: 1344.1
##
## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -2.14293 -0.52145 -0.02326  0.46685  2.21872
##
## Random effects:
## Groups Name Variance Std.Dev.
## ID (Intercept) 2.292 1.514
## Residual 2.076 1.441
## Number of obs: 322, groups: ID, 161
##
## Fixed effects:
##              Estimate Std. Error      df t value Pr(>|t|)
## (Intercept) 12.67134 1.99803 241.49000 6.342 1.11e-09
## edu -0.11291 0.06685 241.49000 -1.689 0.092518
## timehigh -4.45566 1.94789 154.00000 -2.287 0.023532
## age -0.09612 0.02257 241.49000 -4.259 2.94e-05
## INCOMEcst -0.99426 0.18807 241.49000 -5.287 2.79e-07
## SEXMALE 0.07402 0.33650 241.49000 0.220 0.826086
## RACEASIAN PACIFIC -0.75137 2.16270 241.49000 -0.347 0.728576
## RACEWHITE 1.01205 0.47177 241.49000 2.145 0.032932
## edu:timehigh -0.05913 0.06518 154.00000 -0.907 0.365673
## timehigh:age 0.05808 0.02200 154.00000 2.640 0.009151
## timehigh:INCOMEcst 0.62294 0.18335 154.00000 3.398 0.000865
## timehigh:SEXMALE -0.13072 0.32806 154.00000 -0.398 0.690837
## timehigh:RACEASIAN PACIFIC 1.03171 2.10843 154.00000 0.489 0.625306
## timehigh:RACEWHITE -0.73684 0.45993 154.00000 -1.602 0.111185
##
## (Intercept) ***
## edu .
## timehigh *
## age ***
## INCOMEcst ***
## SEXMALE
## RACEASIAN PACIFIC
## RACEWHITE *
## edu:timehigh

```

```

## timehigh:age          **
## timehigh:INCOMEcst    ***
## timehigh:SEXMALE
## timehigh:RACEASIAN PACIFIC
## timehigh:RACEWHITE
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
## Correlation matrix not shown by default, as p = 14 > 12.
## Use print(x, correlation=TRUE) or
##   vcov(x)      if you need it

# demo predictors + group
summary(m2 <- lmer(SSES ~ edu*time + age*time + INCOMEcst*time + SEX*time
  + RACE*time + grp_leth*time + (1|ID), data = m))

## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula: SSES ~ edu * time + age * time + INCOMEcst * time + SEX * time +
##   RACE * time + grp_leth * time + (1 | ID)
##   Data: m
##
## REML criterion at convergence: 1311.2
##
## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -2.34455 -0.48910 -0.06223  0.48330  1.98210
##
## Random effects:
##   Groups   Name                Variance Std.Dev.
##   ID       (Intercept)  2.324      1.524
##   Residual                    1.831      1.353
## Number of obs: 322, groups:  ID, 161
##
## Fixed effects:
##              Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    10.33252    2.02705 228.52000    5.097 7.22e-07
## edu             -0.05742    0.06732 228.52000   -0.853 0.394571
## timehigh       -2.43362    1.90307 150.00000   -1.279 0.202947
## age            -0.07407    0.02301 228.52000   -3.220 0.001469
## INCOMEcst      -0.73289    0.19719 228.52000   -3.717 0.000254
## SEXMALE        -0.05801    0.33496 228.52000   -0.173 0.862664
## RACEASIAN PACIFIC -1.61042    2.17438 228.52000   -0.741 0.459675
## RACEWHITE        0.58786    0.47787 228.52000    1.230 0.219906
## grp_lethHC      -0.50894    0.47557 228.52000   -1.070 0.285676
## grp_lethHL       1.52567    0.58679 228.52000    2.600 0.009929
## grp_lethI        0.83249    0.51780 228.52000    1.608 0.109276
## grp_lethLL       1.60275    0.52053 228.52000    3.079 0.002331
## edu:timehigh    -0.12018    0.06320 150.00000   -1.902 0.059147
## timehigh:age     0.03728    0.02160 150.00000    1.726 0.086427
## timehigh:INCOMEcst 0.31733    0.18513 150.00000    1.714 0.088578
## timehigh:SEXMALE  0.07592    0.31447 150.00000    0.241 0.809556
## timehigh:RACEASIAN PACIFIC 2.02407    2.04139 150.00000    0.992 0.323029
## timehigh:RACEWHITE -0.23279    0.44864 150.00000   -0.519 0.604618

```

```

## timehigh:grp_lethHC          0.89877    0.44649 150.00000    2.013 0.045905
## timehigh:grp_lethHL         -1.45787    0.55090 150.00000   -2.646 0.009005
## timehigh:grp_lethI          -0.87278    0.48613 150.00000   -1.795 0.074610
## timehigh:grp_lethLL         -1.02964    0.48870 150.00000   -2.107 0.036788
##
## (Intercept)                  ***
## edu
## timehigh
## age                          **
## INCOMEcst                    ***
## SEXMALE
## RACEASIAN PACIFIC
## RACEWHITE
## grp_lethHC
## grp_lethHL                  **
## grp_lethI
## grp_lethLL                  **
## edu:timehigh                .
## timehigh:age                 .
## timehigh:INCOMEcst           .
## timehigh:SEXMALE
## timehigh:RACEASIAN PACIFIC
## timehigh:RACEWHITE
## timehigh:grp_lethHC          *
## timehigh:grp_lethHL          **
## timehigh:grp_lethI           .
## timehigh:grp_lethLL          *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
## Correlation matrix not shown by default, as p = 22 > 12.
## Use print(x, correlation=TRUE) or
##   vcov(x)      if you need it

```

```
car::Anova(m2)
```

```

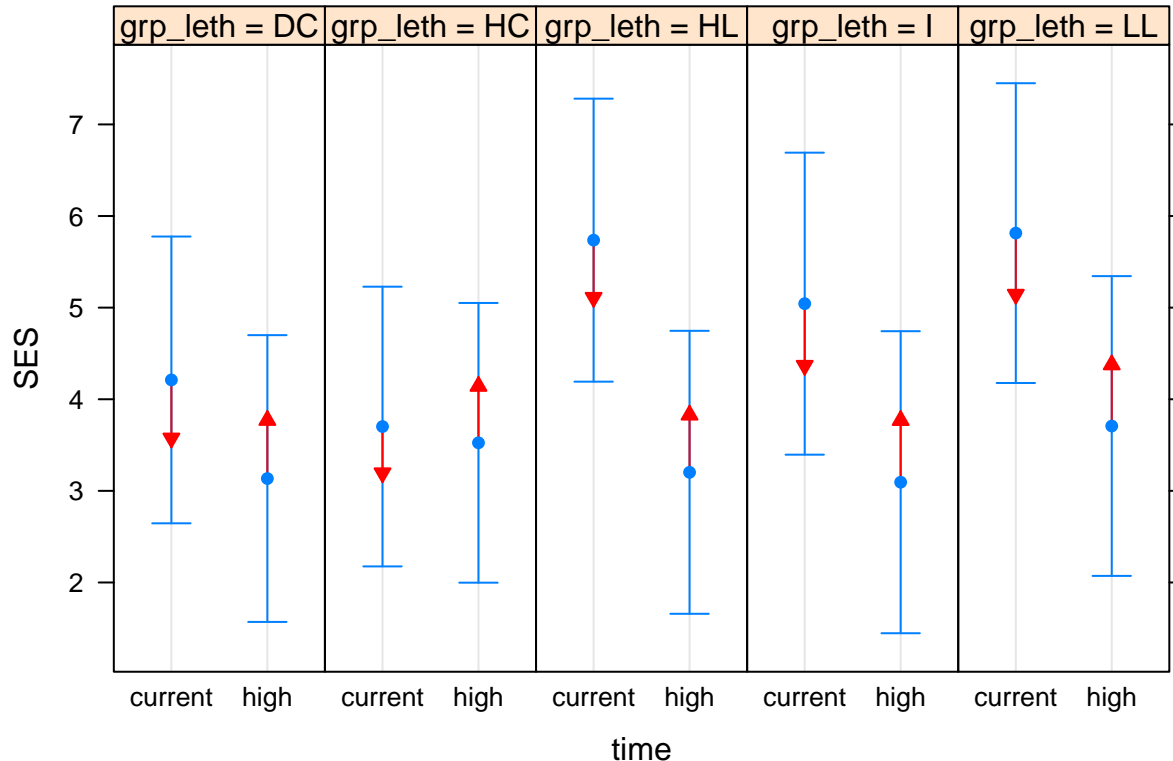
## Analysis of Deviance Table (Type II Wald chisquare tests)
##
## Response: SES
##
##           Chisq Df Pr(>Chisq)
## edu           3.9083 1  0.048048 *
## time        201.8806 1 < 2.2e-16 ***
## age           7.4481 1  0.006350 **
## INCOMEcst    10.8763 1  0.000974 ***
## SEX           0.0046 1  0.945959
## RACE          1.5301 2  0.465317
## grp_leth      8.3292 4  0.080236 .
## edu:time       3.6159 1  0.057230 .
## time:age       2.9787 1  0.084368 .
## time:INCOMEcst 2.9381 1  0.086513 .
## time:SEX       0.0583 1  0.809227
## time:RACE      1.4981 2  0.472827
## time:grp_leth 24.5927 4 6.074e-05 ***
## ---

```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
anova(m1,m2)

## refitting model(s) with ML (instead of REML)

## Data: m
## Models:
## object: SES ~ edu * time + age * time + INCOMEcst * time + SEX * time +
## object:      RACE * time + (1 | ID)
## ..1: SES ~ edu * time + age * time + INCOMEcst * time + SEX * time +
## ..1:      RACE * time + grp_leth * time + (1 | ID)
##      Df    AIC    BIC logLik deviance  Chisq Chi Df Pr(>Chisq)
## object 16 1354.4 1414.8 -661.18   1322.4
## ..1    24 1337.2 1427.8 -644.61   1289.2 33.144     8 5.802e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
ls2 <- lsmeans(m2, "time", by = "grp_leth")
plot(ls2, type ~ SES, horiz=F, ylab = "SES", xlab = "time", comparisons = TRUE)
```



```
# diff impact of education
#summary(m3 <- lmer(SES ~ edu*time + age*time + INCOMEcst*time + SEX*time
#      + RACE*time + grp_leth*time*edu + (1|ID), data = m))
#car::Anova(m3)
#anova(m2,m3)
#ls3 <- lsmeans(m3, "time", by = c("grp_leth", "edu"), at=list(edu = c(8,17)))
#plot(ls3, type ~ SES, horiz=F, ylab = "SES", xlab = "time", comparisons = TRUE, alpha = 0.05)

summary(m4 <- lmer(SES ~ edu*time + age*time + INCOMEcst*time + SEX*time
+ RACE*time + REGRETSUBSCALE*time + (1|ID), data = m))
```



```

## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula: SES ~ edu * time + age * time + INCOMEcst * time + SEX * time +
##   RACE * time + REGRETSUBSCALE * time + (1 | ID)
##   Data: m
##
## REML criterion at convergence: 1252.3
##
## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -2.01940 -0.51917 -0.02759  0.44639  2.06204
##
## Random effects:
##   Groups   Name      Variance Std.Dev.
##   ID       (Intercept) 2.233    1.494
##   Residual                2.038    1.428
## Number of obs: 300, groups: ID, 150
##
## Fixed effects:
##
##              Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      9.94207    2.30495 223.04000    4.313 2.42e-05
## edu             -0.10583    0.06868 223.04000   -1.541 0.12478
## timehigh        -1.88559    2.25184 142.00000   -0.837 0.40380
## age             -0.08073    0.02410 223.04000   -3.350 0.00095
## INCOMEcst       -0.91994    0.19509 223.04000   -4.716 4.25e-06
## SEXMALE          0.10151    0.35468 223.04000    0.286 0.77499
## RACEASIAN PACIFIC -1.51830    2.15695 223.04000   -0.704 0.48222
## RACEWHITE         0.51336    0.50685 223.04000    1.013 0.31223
## REGRETSUBSCALE    0.14289    0.04855 223.04000    2.943 0.00359
## edu:timehigh     -0.06995    0.06710 142.00000   -1.043 0.29894
## timehigh:age      0.04591    0.02355 142.00000    1.950 0.05315
## timehigh:INCOMEcst 0.54282    0.19059 142.00000    2.848 0.00505
## timehigh:SEXMALE -0.06466    0.34651 142.00000   -0.187 0.85225
## timehigh:RACEASIAN PACIFIC 1.69705    2.10725 142.00000    0.805 0.42197
## timehigh:RACEWHITE -0.27003    0.49517 142.00000   -0.545 0.58638
## timehigh:REGRETSUBSCALE -0.14097    0.04743 142.00000   -2.972 0.00348
##
## (Intercept)      ***
## edu
## timehigh
## age              ***
## INCOMEcst        ***
## SEXMALE
## RACEASIAN PACIFIC
## RACEWHITE
## REGRETSUBSCALE    **
## edu:timehigh
## timehigh:age      .
## timehigh:INCOMEcst **
## timehigh:SEXMALE
## timehigh:RACEASIAN PACIFIC
## timehigh:RACEWHITE
## timehigh:REGRETSUBSCALE **
## ---

```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
```

```
## Correlation matrix not shown by default, as p = 16 > 12.
```

```
## Use print(x, correlation=TRUE) or
```

```
##   vcov(x)       if you need it
```

```
car::Anova(m4)
```

```
## Analysis of Deviance Table (Type II Wald chisquare tests)
```

```
##
```

```
## Response: SES
```

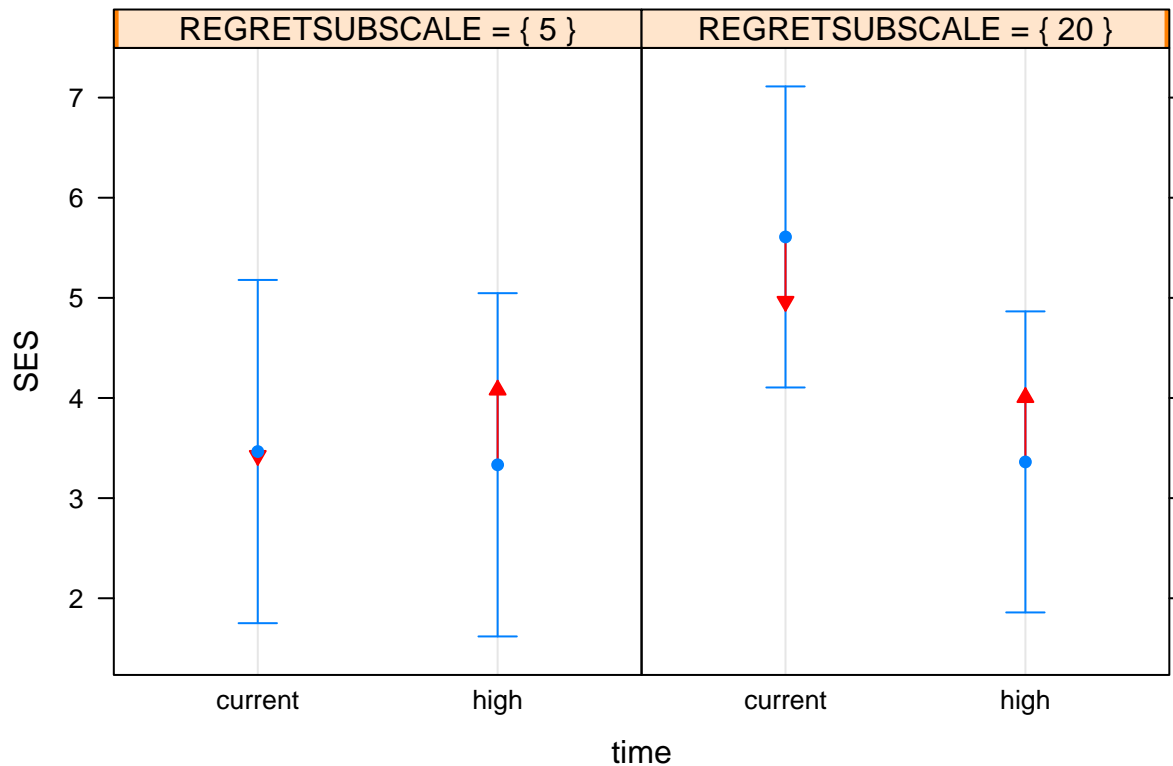
	Chisq	Df	Pr(>Chisq)	
edu	5.5198	1	0.0188019	*
time	181.3676	1	< 2.2e-16	***
age	7.5476	1	0.0060091	**
INCOMEcst	14.5142	1	0.0001391	***
SEX	0.0500	1	0.8231198	
RACE	1.0124	2	0.6027780	
REGRETSUBSCALE	2.9208	1	0.0874431	.
edu:time	1.0868	1	0.2971723	
time:age	3.8023	1	0.0511835	.
time:INCOMEcst	8.1114	1	0.0043988	**
time:SEX	0.0348	1	0.8519788	
time:RACE	1.1569	2	0.5607804	
time:REGRETSUBSCALE	8.8320	1	0.0029600	**

```
## ---
```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
ls4 <- lsmeans(m4, "time", by = c("REGRETSUBSCALE"), at=list(REGRETSUBSCALE = c(5,20)))
```

```
plot(ls4, type ~ SES, horiz=F, ylab = "SES", xlab = "time", comparisons = TRUE, alpha = 0.05)
```



```
summary(m5 <- lmer(SSES ~ edu*time + age*time + INCOMEcst*time + SEX*time
+ RACE*time + neurotic*time + (1|ID), data = m))

## Linear mixed model fit by REML t-tests use Satterthwaite approximations
## to degrees of freedom [lmerMod]
## Formula: SSES ~ edu * time + age * time + INCOMEcst * time + SEX * time +
## RACE * time + neurotic * time + (1 | ID)
## Data: m
##
## REML criterion at convergence: 950.9
##
## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -1.81649 -0.51402 -0.04323  0.49906  2.37703
##
## Random effects:
## Groups Name Variance Std.Dev.
## ID (Intercept) 2.078 1.441
## Residual 1.938 1.392
## Number of obs: 230, groups: ID, 115
##
## Fixed effects:
## Estimate Std. Error df t value Pr(>|t|)
## (Intercept) 7.68818 2.55337 168.81000 3.011 0.0030
## edu -0.07561 0.07908 168.81000 -0.956 0.3404
## timehigh -0.93280 2.50849 107.00000 -0.372 0.7107
## age -0.05603 0.02816 168.81000 -1.989 0.0483
## INCOMEcst -0.92004 0.22076 168.81000 -4.168 4.91e-05
## SEXMALE 0.27722 0.38463 168.81000 0.721 0.4721
## RACEASIAN PACIFIC -1.00943 2.12082 168.81000 -0.476 0.6347
## RACEWHITE -0.07521 0.59324 168.81000 -0.127 0.8993
## neurotic 0.07731 0.01813 168.81000 4.264 3.33e-05
## edu:timehigh -0.09470 0.07769 107.00000 -1.219 0.2256
## timehigh:age 0.03258 0.02767 107.00000 1.178 0.2415
## timehigh:INCOMEcst 0.47597 0.21688 107.00000 2.195 0.0304
## timehigh:SEXMALE -0.16522 0.37787 107.00000 -0.437 0.6628
## timehigh:RACEASIAN PACIFIC 1.02318 2.08355 107.00000 0.491 0.6244
## timehigh:RACEWHITE 0.02674 0.58281 107.00000 0.046 0.9635
## timehigh:neurotic -0.05672 0.01781 107.00000 -3.184 0.0019
##
## (Intercept) **
## edu
## timehigh
## age *
## INCOMEcst ***
## SEXMALE
## RACEASIAN PACIFIC
## RACEWHITE
## neurotic ***
## edu:timehigh
## timehigh:age
## timehigh:INCOMEcst *
## timehigh:SEXMALE
## timehigh:RACEASIAN PACIFIC
```

```
## timehigh:RACEWHITE
## timehigh:neurotic          **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
## Correlation matrix not shown by default, as p = 16 > 12.
## Use print(x, correlation=TRUE) or
##   vcov(x)      if you need it
car::Anova(m5)

## Analysis of Deviance Table (Type II Wald chisquare tests)
##
## Response: SES
##           Chisq Df Pr(>Chisq)
## edu           3.1861  1  0.0742681 .
## time        129.2254  1 < 2.2e-16 ***
## age           2.6240  1  0.1052600
## INCOMEcst    12.5814  1  0.0003896 ***
## SEX           0.3374  1  0.5613161
## RACE          0.0767  2  0.9623781
## neurotic      9.6086  1  0.0019367 **
## edu:time       1.4857  1  0.2228802
## time:age       1.3870  1  0.2389095
## time:INCOMEcst 4.8165  1  0.0281889 *
## time:SEX       0.1912  1  0.6619306
## time:RACE      0.2448  2  0.8848149
## time:neurotic  10.1379  1  0.0014525 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

ls5 <- lsmeans(m5, "time", by = c("neurotic"), at=list(neurotic = c(10,50)))
plot(ls5, type ~ SES, horiz=F, ylab = "SES", xlab = "time", comparisons = TRUE, alpha = 0.05)
```

