

Final Report

due October 11, 2021 by 11:59 PM

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10/11/2021

Load Packages

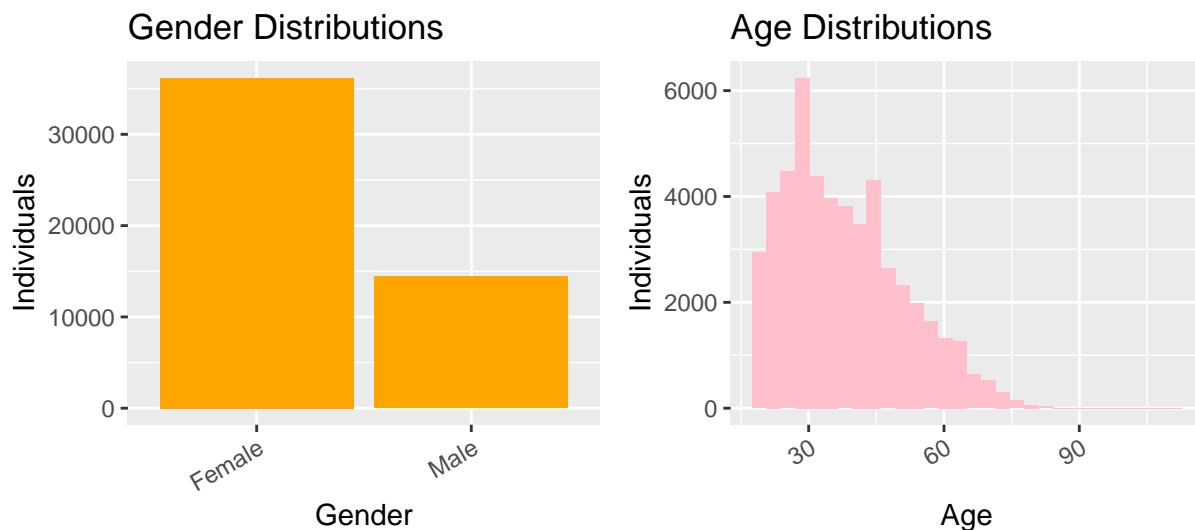
```
library(tidyverse)
library(tidymodels)
library(infer)
library(readxl)
library(skimr)
library(dplyr)
library(patchwork)
```

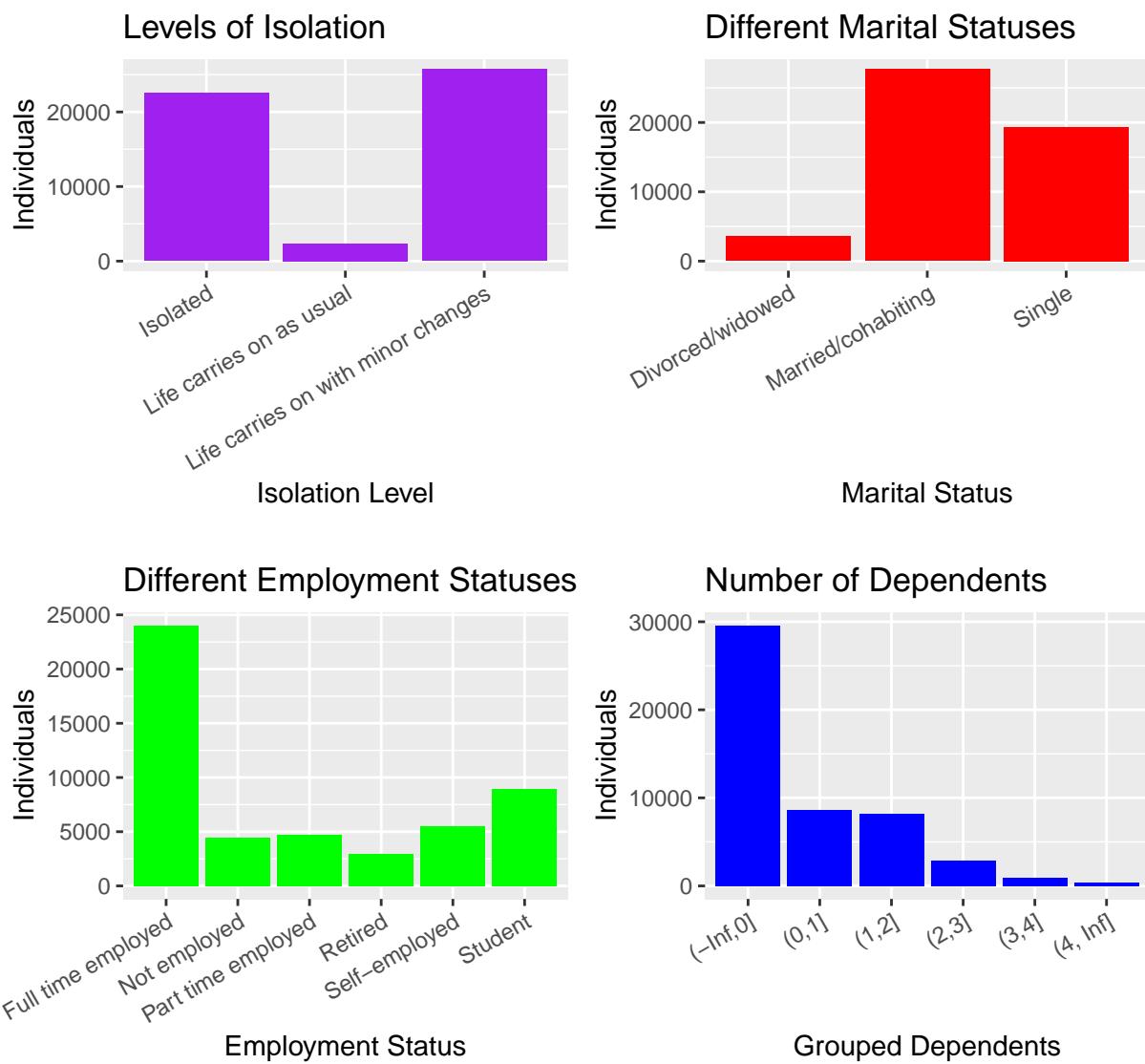
Load Data

```
cleancovid <- subset (covidstressdata, select = -c(AD_gain, AD_loss, RecordedDate, Duration..in.seconds
  #removed because of LaTeX incompatible but will use this for analysis

filter(Dem_gender %in% c("Male", "Female"), answered_all == "Yes", Dem_isolation %in% c("Isolated", "Li
  mutate(Dem_dependentsgrouped = cut(Dem_dependents, breaks = c(-Inf,0,1,2,3,4,Inf)))

## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```





```
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```

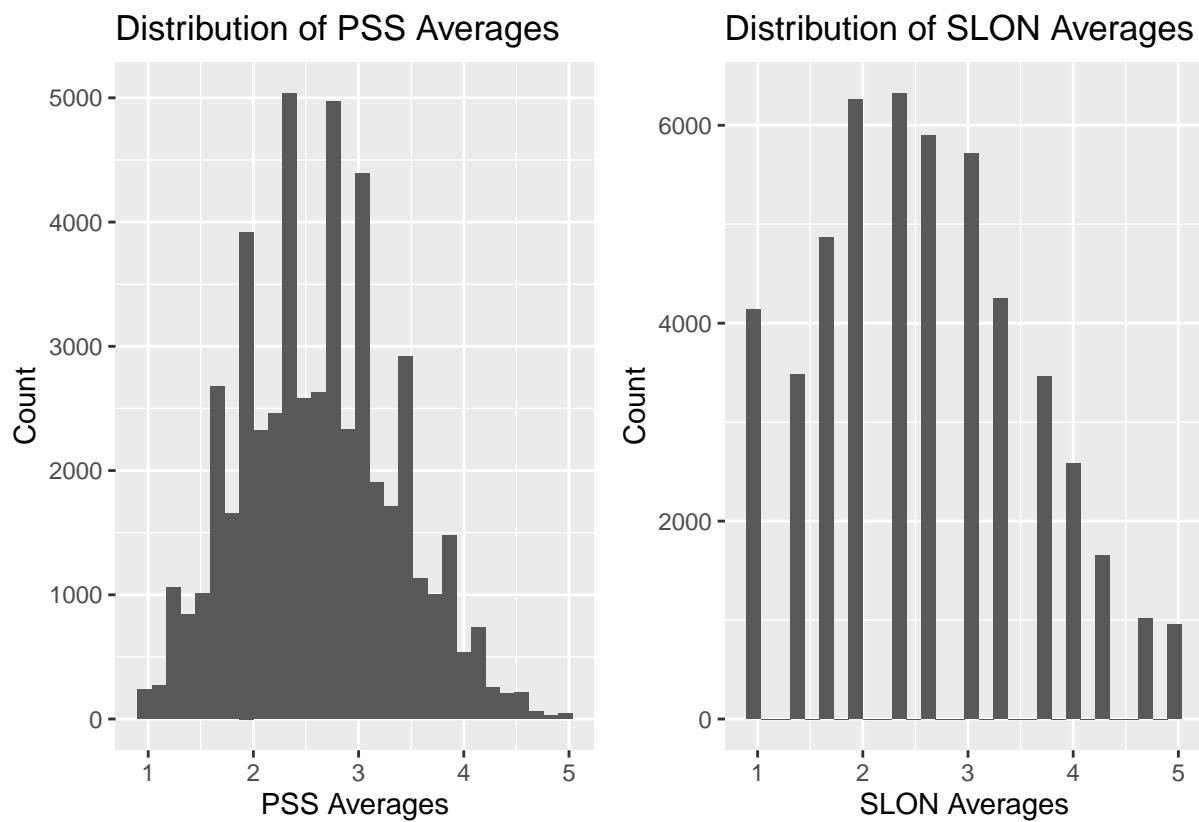


Table 1: T-Test Results for Gender with PSS and SLON Scales

	PSS	SLON
P values	0.000	0.000
Confidence Intervals Low	0.211	0.221
Confidence Intervals High	0.239	0.259

Table 2: P Values for ANOVA Results

	PSS	SLON
Isolation Status	0	0
Marital Status	0	0
Employment	0	0
Dependents	0	0

Table 3: F Values for ANOVA Results

	PSS	SLON
Isolation Status	1547.0	1398.0
Marital Status	22.8	695.0
Employment	128.0	151.0
Dependents	20.8	60.5

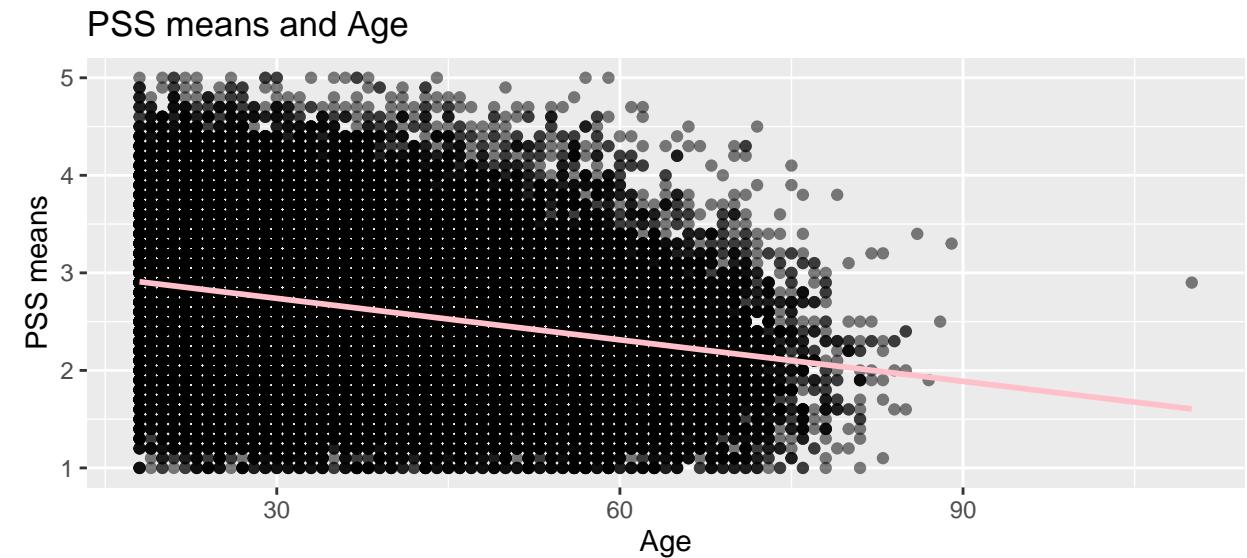
Table 4: Linear Regression Results for Age with PSS and SLON Scales

	PSS	SLON
Estimate	-0.014	-0.013
P values	0.000	0.000
Confidence Intervals Low	3.145	3.047
Confidence Intervals High	3.183	3.099

Table 5: Linear Regression Results for Age with PSS and SLON Scales

	PSS	SLON
Equation	$y_{\text{expected}} = 3.164 - 0.014(\text{age})$	$y_{\text{expected}} = 3.073 - 0.013(\text{age})$

```
## `geom_smooth()` using formula 'y ~ x'
```



```
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```

SLON means and Age

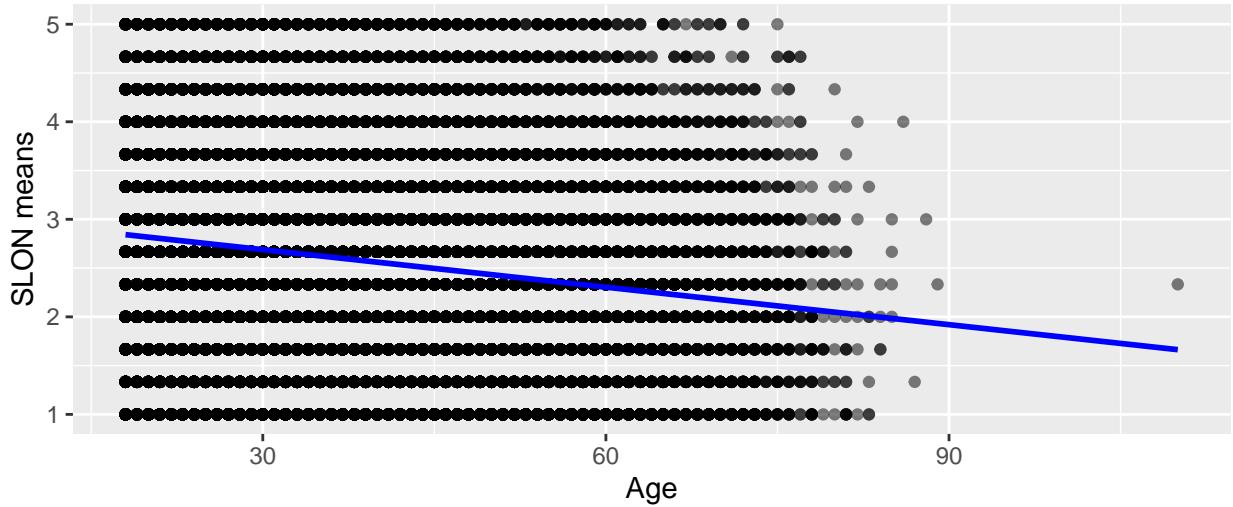
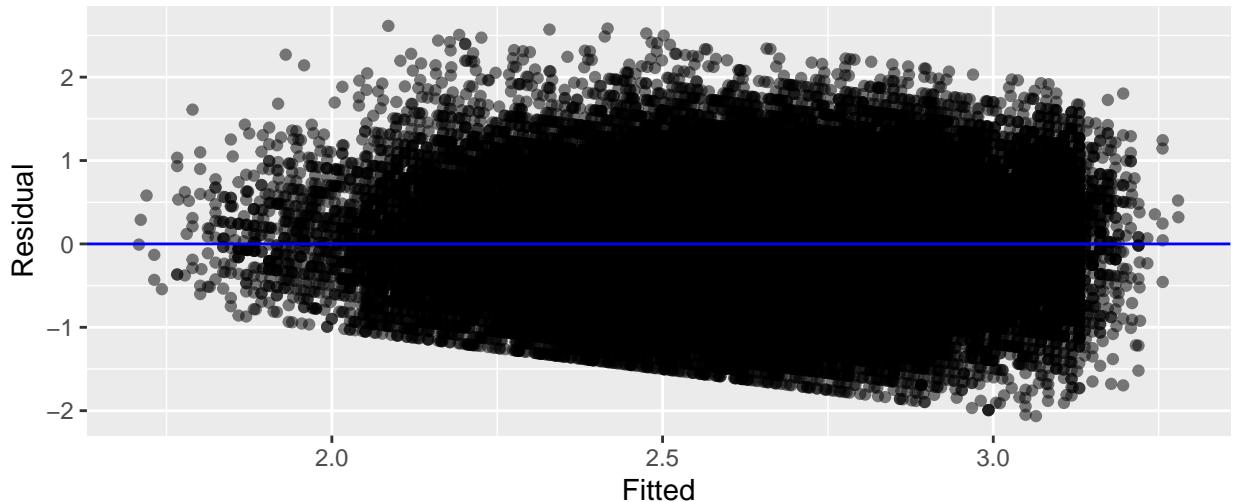


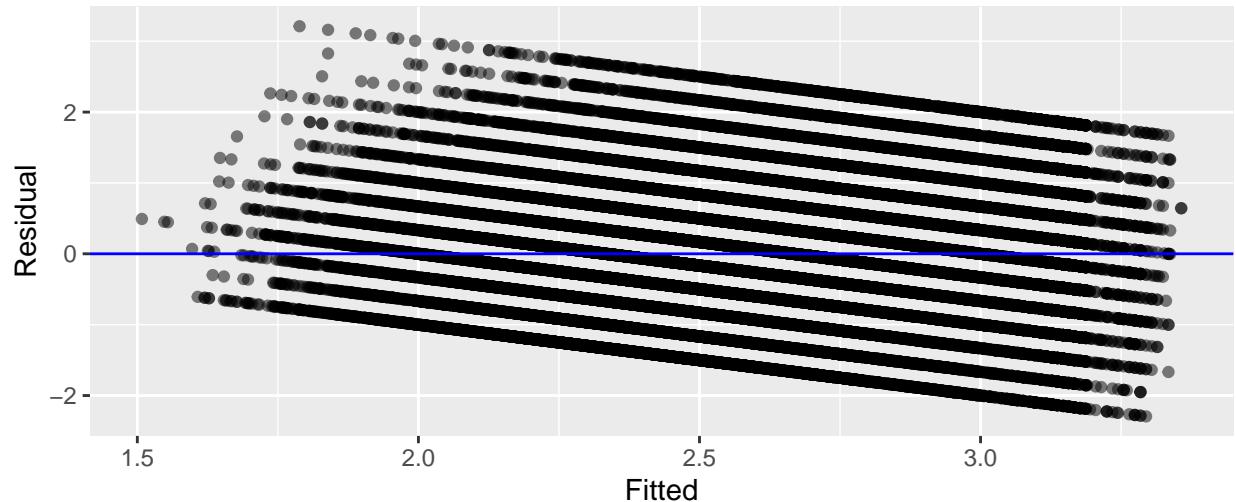
Table 6: Main Effect Models: Adjusted R² Values for PSS and SLON

Adjusted R ² Value	
PSS	0.1044
SLON	0.1028

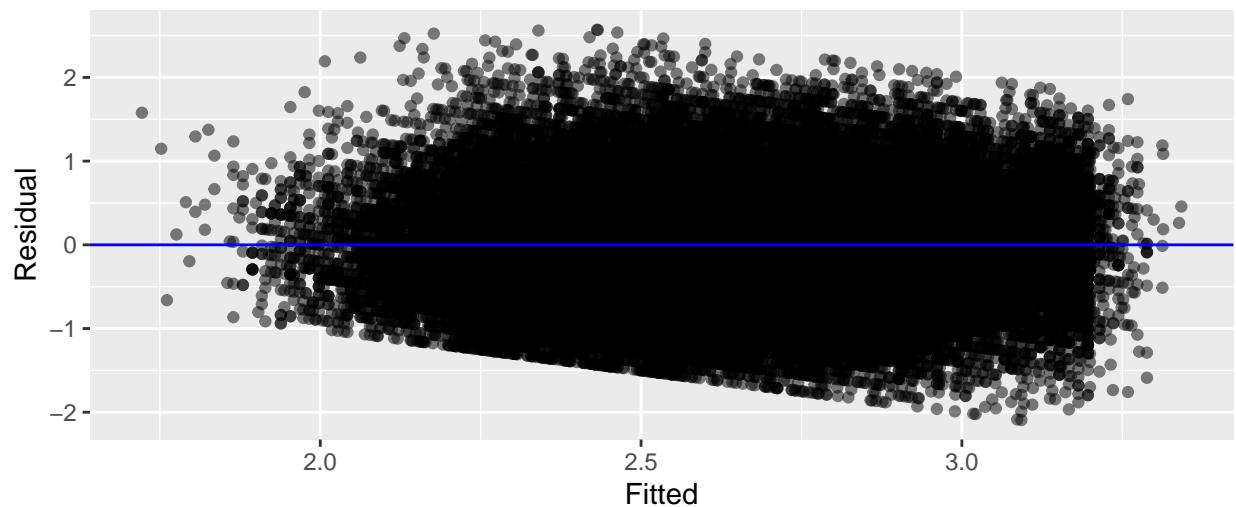
Residual Plot of PSS Main Effect Model



Residual Plot of SLON Main Effect Model



Residual Plot of Interaction of PSS in Age and Gender



Residual Plot of Interaction of SLON in Age and Gender

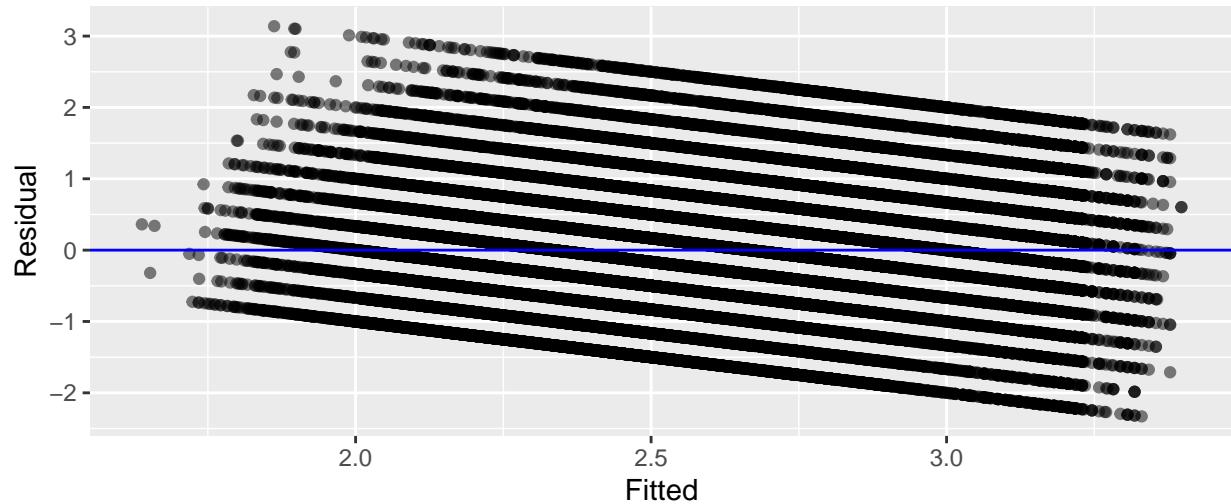


Table 7: Interaction Models: Adjusted R^2 Values for PSS and SLON

	Adjusted R^2 Value
PSS: Age+Gender	0.1303
PSS: Employment+Isolation	0.1250
PSS: Marital+Isolation	0.1231
PSS: Age+Isolation	0.1256
PSS: Gender+Isolation	0.1250
PSS: Dependents+Isolation	0.1230
SLON: Age+Gender	0.1044
SLON: Employment+Isolation	0.1040
SLON: Marital+Isolation	0.1032