SOC 4930/5050: Week 11 R Functions

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Packages

- `base`
- `ggplot2`
- `Hmisc`
- `psych`
- `pwr`
- `stargazer`
- `stats`

Creating a Vector

```
base::c(element, element, element)
```

Creating a Matrix

```
base::as.matrix(objectName)
```

Missing Data

Test if Missing

```
base::is.na(objectName)
```

Remove All Missing Data

```
stats::na.omit(objectName)
```

Pearson's r

Basic Approach

```
stats::corr(dataFrame, use, method = "pearson")
```

Hmisc Approach

```
Hmisc::corr(matrix, type = "pearson")
```

Full Table Approach

```
corrTable(dataFrame, coef = "pearson", listwise = TRUE,
  round = 3, pStar = 3, ...)
```

Full Table to LaTeX

```
stargazer::stargazer(outputObject,title = "title text",
  summary = FALSE)
```

Scatterplots

Basic Scatterplot

```
ggplot2::geom_point(mapping = aes(x = xvar, y = yvar))
```

Scatterplot with Grouping Variable

```
ggplot2::geom_point(mapping = aes(x = xvar, y = yvar,
  color = groupVar))
```

Scatterplot with Facet

```
ggplot2::facet_grid(.  ~ facetVar)
```

Scatterplot with Smoothed Line

```
ggplot2::geom_smooth(method, mapping = aes(color = "method"))
```

Scatterplot with Smoothed Line by Grouping Variable

```
ggplot2::geom_smooth(method, mapping = aes(color = groupVar,
  linetype = groupVar))
```

Sample Size Estimate

```
pwr::pwr.r.test(r = rVal, sig.level = .05, power = powerVal,
  alernative = "two.sided")
```

Cronbach's alpha

```
psych::alpha(dataFrame, check.keys = FALSE)
```