

SOC 4930/5050: Week 02, Lecture 03 Functions Quick Reference

Christopher Prener, Ph.D.

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Packages

- `base`
- `tidyverse`
 - `dplyr`
 - `magrittr`
- `utils`

Verbs for Cleaning Data

Rename Variables

```
dplyr::rename(dataFrame, newName = oldName)
```

Reorder Variables, Low to High

```
dplyr::arrange(dataFrame, varlist)
```

varlist items should be separated by commas

Reorder Variables, High to Low

```
dplyr::arrange(dataFrame, desc(varlist))
```

varlist items should be separated by commas

Subset Data, Specific Observations

```
dplyr::filter(dataFrame, expression)
```

Subset Data, Keep Specific Variables

```
dplyr::select(dataFrame, varlist)
```

varlist items should be separated by commas

Subset Data, Drop Specific Variables

```
dplyr::select(dataFrame, -varlist)
```

varlist items should be separated by commas with each item individually labeled with the dash drop symbol

Verbs for Cleaning Data (con't)

Create New Variables

```
dplyr::mutate(dataFrame, newVar = expression)
```

ifelse Outcomes

```
base::ifelse(expression, trueOutcome, falseOutcome)
```

Pipe Operator

Basic Syntax

%>% - "then"

Example with Assignment

```
mpg %>%
  select(manufacturer, model, cty, hwy) %>%
  rename(cityMpg = cty) %>%
  rename(hwyMpg = hwy) -> autoData
```

Remember that `dataFrame` names do not need to be included for many functions when included in piped code

Logical Operators

& - "and"

| - "or"

Relational Operators

< - "less than"

<= - "less than or equal to"

> - "greater than"

>= - "greater than or equal to"

== - "exactly equal to"

!= - "not equal to"

Arithmetic Operators

- + - “addition”
- - “subtraction”
- * - “multiplication”
- / - “division”
- ^ - “exponentiation”

Viewing Observations

First Six Observations

```
utils::head(dataFrame)
```

Last Six Observations

```
utils::tail(dataFrame)
```

Viewing Data Frames

```
utils::View(dataFrame)
```

Frequency Tables

```
base::table(dataFrame$var)
```