

Introduction to R and R Graphics

Eric Guntermann

December 13, 2013

What we will learn

- Some basic R
- How to import, create, and manipulate data
- How to run models (linear, logistic, multinomial logistic, and ordinal logistic)
- How to present the results in graphs using the effects package
- Short introduction to lattice graphs

What you need

- R
- RStudio
- R code file
- Datasets
- Effects package
- You can find all of this at:
<http://ericguntermann.com/randgraphs.html>

Some basic concepts

- Objects store information
- Commands are performed on input objects and their output is assigned (`<-`) to output objects
- Commands are stored in packages

Applying a command to an input object and assigning the output to another object

`input object`

Applying a command to an input object and assigning the output to another object

```
command(input object)
```

Applying a command to an input object and assigning the output to another object

```
<- command(input object)
```

Applying a command to an input object and assigning the output to another object

```
output object <- command(input object)
```


Example

```
y ~ x + c, data=dataset
```

Example

```
lm(y ~ x + c, data=dataset)
```

Example

```
<- lm(y ~ x + c, data=dataset)
```

Example

```
model <- lm(y ~ x + c, data=dataset)
```