

# Writing Neat Code

Randy Johnson

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# Your future self

When you write code, you are collaborating with your future self.

# Reproducible Code

- ▶ Use `set.seed()` for random processes
- ▶ Don't ever make changes to primary data
- ▶ Maintain a clear record of what you do

# Reusable Code

- ▶ Include enough generality that you can reuse code
- ▶ Use generic, consistent variable names
- ▶ Use functions and loops
- ▶ Vectorize calculations

# Comments

- ▶ Add a short description at the top of the file
- ▶ Label sections of code
- ▶ Maintain dialog of what you are doing

# Use space

- ▶ Use tidyverse
- ▶ Use %>%
- ▶ Avoid packing too many things into one command
- ▶ Leave white space between lines
- ▶ Indent consistently

# Use multiple files

- ▶ Good things to put in a separate file
  - ▶ Any discrete chunk of code that gets too long
  - ▶ Functions

# When Sharing

- ▶ Code should be copy/pasteable

```
# bad code  
> dat <- data_frame(x = rnorm(100),  
+                   y = x + rnorm(100))
```

*Error: unexpected '>' in ">"*

```
# good code  
dat <- data_frame(x = rnorm(100),  
                  y = x + rnorm(100))
```



# Loading libraries

- ▶ Either load all libraries at the top of the file
- ▶ Or include a comment on what libraries are required