# Welcome to



#### **Data Problems**

"Where did this data file come from?!"

"Can you repeat the analysis, omitting subject X?"

"You used the wrong data - the full data has more subjects."

"The color-coding in this spreadsheet was off."

## **Data Carpentry**

"Our mission is to provide researchers high-quality, domain-specific training covering the full lifecycle of data-driven research."

"Our focus is on the introductory computational skills needed for data management and analysis in all domains of research."

"Our initial target audience is learners who have little to no prior computational experience."

# This Workshop

### **Our Goals**

Identify data management steps in the life of a project

Recognize good data practices

Use tools that parse and analyze data, rather than editing data directly

Avoid doing things "by hand"

### **Our Tools**

#### **Today**

- organizing data in spreadsheets
- cleaning data with OpenRefine
- working with SQL databases

#### **Tomorrow**

- data manipulation in R
- data visualization in R
- reproducible reports

## **Workshop Format**

Hands-on, working with real data.

#### Be prepared to:

- follow along with the instructor on your own computer
- work on exercises by yourself or with people near you

Ask questions!

# Housekeeping

### Code of Conduct

The Software/Data Carpentry Code of Conduct is here: <a href="https://www.datacarpentry.org/code-of-conduct/">www.datacarpentry.org/code-of-conduct/</a>

Be professional.

Be kind.

If you have any concerns, email Christina at <a href="mailto:ckoch5@wisc.edu">ckoch5@wisc.edu</a> or Lauren at <a href="mailto:lmichael@wisc.edu">lmichael@wisc.edu</a>.

## **Important Links**

Workshop website (schedule, materials):

uw-madison-aci.github.io/2016-08-23-uwmadison/

**Data Download:** 

kbroman.org/datacarp

Etherpad (links, online notes + live chat):

pad.software-carpentry.org/2016-08-23-uwmadison

Twitter: @datacarpentry, #dcuwm

## Nametags

Your nametags are a visual feedback tool for instructors

If you are lost, confused, or need help, put the red side up.

If all is well, put up the green side up.

# Introductions