

# Day 1 Orientation

DS705

## Course Intro Video

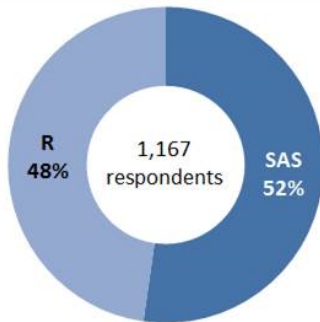
up to Ryan and Bryan to include here or not

# Instructor Intro Video

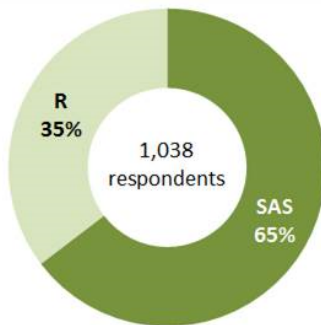
up to Ryan and Bryan

# R

- *Free*, open source statistical analysis software
- Computational engine for DS705



2015



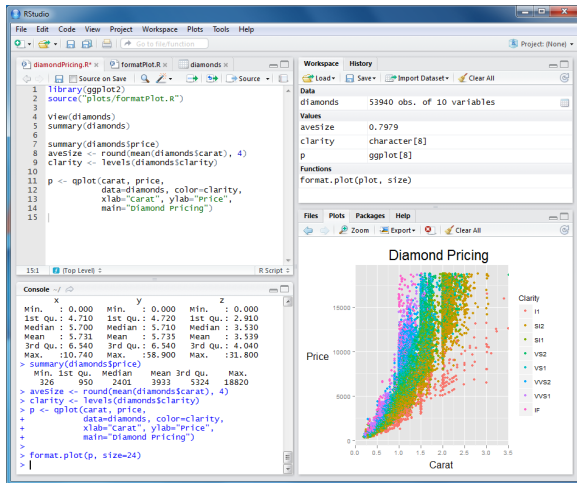
2014

## Recent News about R

- 2015 - Microsoft acquires commercial R provider Revolution Analytics
- 2016 - In-database R coming to SQL server

# RStudio

- Development environment for DS705 in virtual desktop



## RStudio Overview Video

- please embed this video\*
- suggest HD and fullscreen
- <https://vimeo.com/97166163>

## Class Structure (non-exam weeks)

- Study presentation(s)
- Read
- Complete swirl lesson (some weeks)
- Contribute to group discussion
- Complete brief quiz in D2L
- Complete homework using R Markdown and submit via D2L



## Class Structure (exam weeks)

- Work on practice problems
- Take exam
  - May include D2L part similar to quizzes
  - Complete exercises in R Markdown and submit via D2L

swirl

{swirl}

Learn R, in R.

# Installing swirl and swirl Course

At the console in the R-studio:

```
install.packages('swirl')  
library(swirl)  
install_course_github('DataScienceUWL','Statistical_Methods')  
swirl()  
info() # type this anytime in swirl to see options
```

After the first time, you can skip the first and third commands.

## R Markdown

- Great tool for reproducible research
- Each week download file like 'Homework\_01.Rmd'
- In RStudio
  - open .Rmd file
  - Add chunks of R code and text to complete exercises
  - 'knit' a Word .docx file
  - Upload .Rmd and .docx file to D2L dropbox
- <http://rmarkdown.rstudio.com> for getting started and documentation

## Try R Markdown Now

- In RStudio
  - Choose File → New File → R Markdown
  - Fill in the title and author fields and select Word document
  - At the top of the editor window, click on 'Knit Word'

## Weekly Download

- Download week01\_download.zip from D2L
- Create DS705 directory and unzip there
- Set working directory to week01\_download in RStudio
  - Session → Set Working Directory → Choose Directory
- Open Week\_01\_Discussion\_Assignment.Rmd
- Open Week\_01\_HW\_Submission.Rmd