

Introduction

WEEK 2

- ▶ A few bullet points or short paragraph.
- ▶ What is the topic?
- ▶ What makes this topic important, and how common is this issue?
- ▶ Summarize key previous studies.

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Research questions

WEEK 1

- ▶ List of clear and specific research questions.
- ▶ These are your hypotheses to test, or aims of the project.

Methods

Data sources

WEEK 2

1. Primary data sources used.
2. Study design
3. When, where, who.
4. Sample size.
5. Response rate.

Measures/Variables

1. Dependent variable x and independent variables y and z for testing hypothesis or objective 1.
2. Dependent variable a and independent variables b and c for testing hypothesis or objective 2.
3. Indicate how variables were coded.

Methods

1. Method 1 for testing hypothesis or objective 1.
2. Method 2 for testing hypothesis or objective 2.

Discussion

WEEK 12

- ▶ Answer the question, "So what?" Why are these findings important?
- ▶ Results in context of what others have done.
- ▶ Policy implications tailored to audience and likely applications.

Further directions

- ▶ What do these results lead you to want to investigate?

References

WEEK 2

- [1] R Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2015.
- [2] Hadley Wickham and Winston Chang. *ggplot2: An Implementation of the Grammar of Graphics*, 2015. R package version 1.0.1.
- [3] Yihui Xie. *knitr: A General-Purpose Package for Dynamic Report Generation in R*, 2015. R package version 1.10.5.

Results

Highlight your key findings with figures and tables, providing brief interpretations [1, 2, 3].

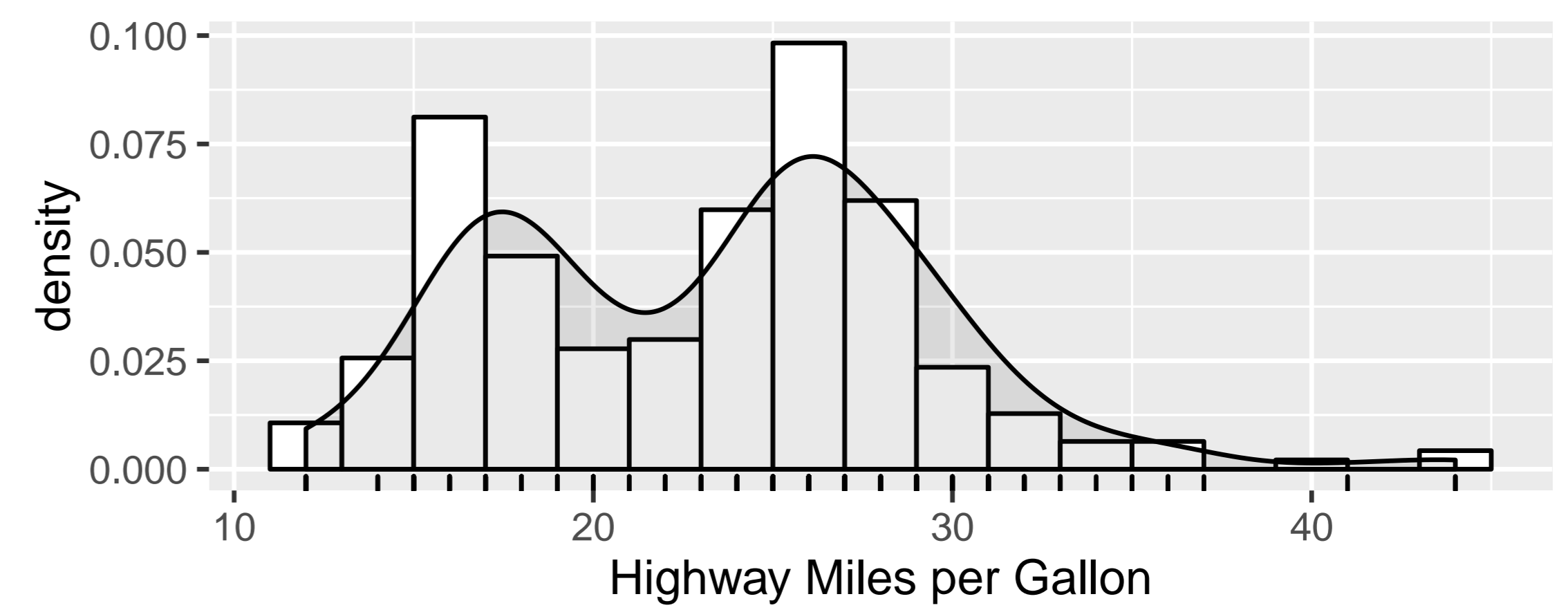
Note that your results section won't be the order presented below, this is here to help us plan the semester weeks: univariate methods, two-variable methods of association, and possibly some multiple regression for conditional associations.

Univariate

WEEK 3

The highway miles are bimodal with peaks at roughly 18 and 27 miles per gallon, and the table below is the five-number summary and mean.

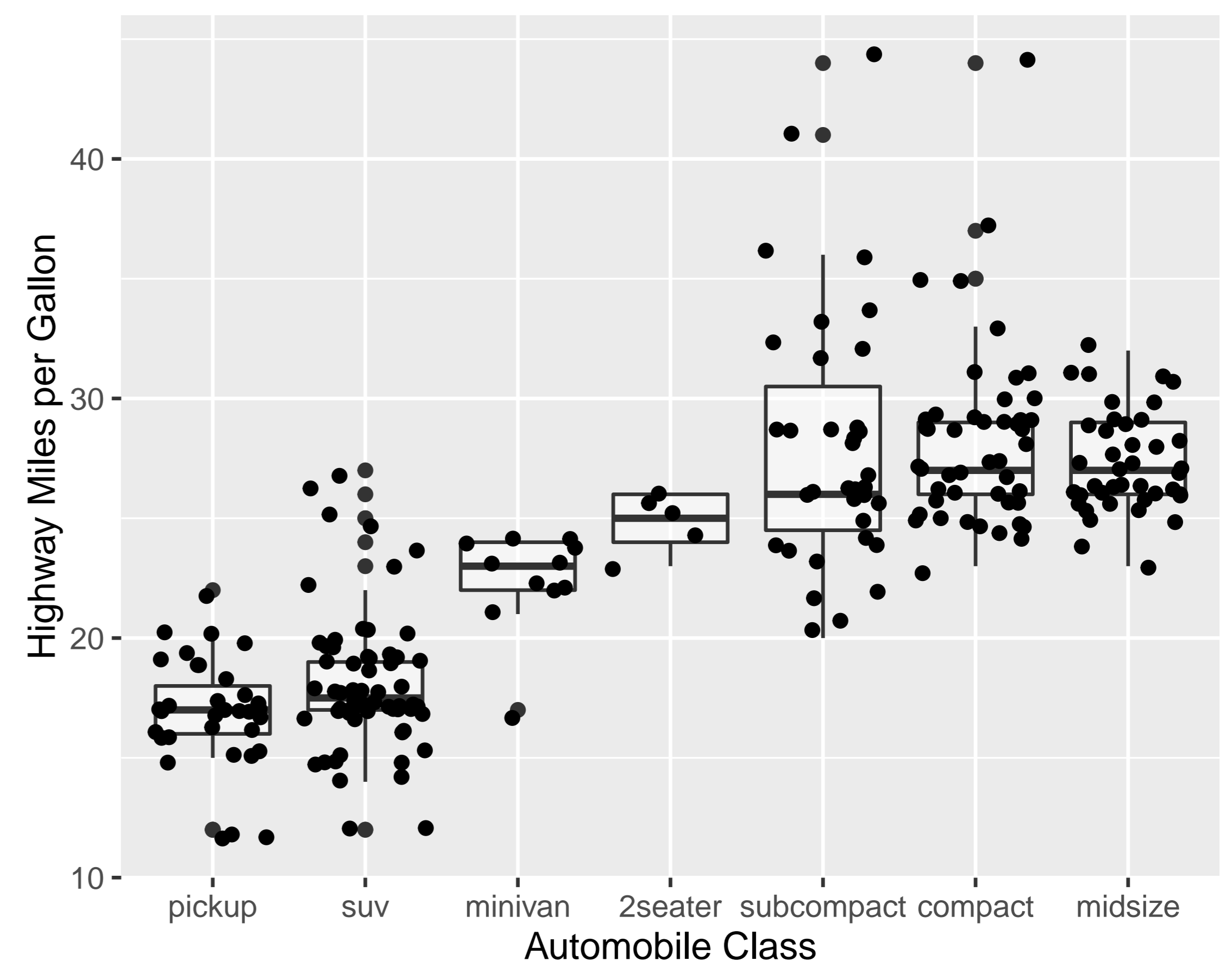
Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
12.00	18.00	24.00	23.44	27.00	44.00



Two-variable relationships

WEEKS 5,6

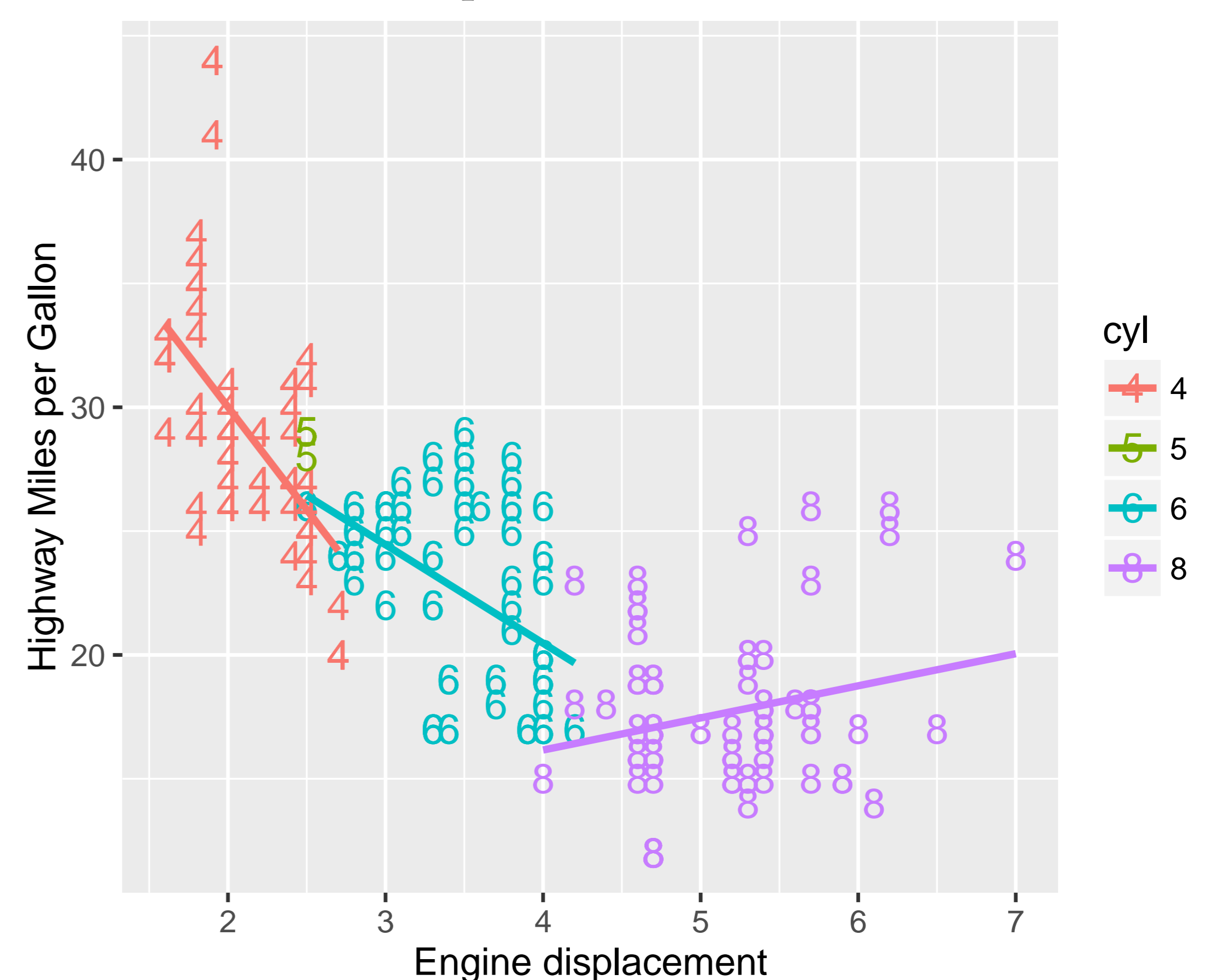
The automobile class is ranked by median highway miles.



More results

Multiple-variable relationships

WEEK 14



Negative relationships between highway mpg and displacement, though the primary result is that the number of cylinders determines displacement.

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	33.33	1.22	27.37	0.0000
displ	-2.11	0.53	-3.95	0.0001
cyl5	0.69	1.93	0.36	0.7188
cyl6	-3.32	0.90	-3.70	0.0003
cyl8	-4.88	1.71	-2.86	0.0046

Table : Regression coefficient table