



Bookmarks

► Important Pre-Course Survey

► Contact Us

► How To Navigate the Course

► Discussion Board

► Office Hours

► Week 1: Introduction to Data

▼ **Week 2: Univariate Descriptive Statistics**

Readings

Reading Check due Mar 15, 2016 at 18:00 UTC

Lecture Videos

Comprehension Check due Mar 15, 2016 at 18:00 UTC

R Tutorial Videos

Pre-Lab

Pre-Lab due Mar 15, 2016 at 18:00 UTC

Lab

Lab due Mar 15, 2016 at 18:00 UTC

Problem Set

Problem Set due Mar 15, 2016 at 18:00 UTC

Week 2: Univariate Descriptive Statistics > Lab > Draw Conclusions



Bookmark

Reflect on the Question

Analyze the Data

Draw Conclusions

Primary Research Question

Compare the weight of adult cats and dogs at the shelter. How typical would it be to find a 13-pound cat? What about a 13-pound dog?

(11/11 points)

Write Your Conclusion

Answer the question and support your answer with statistics:

The distribution of adult cats in the shelter is ✓

Answer: roughly symmetric with a ✓ **Answer:** mean of

8.6 pounds and a standard deviation of ✓ **Answer:** 1.9 pounds. About 95% of adult cats at the shelter weigh between ✓

✓ **Answer:** 4.8 and ✓ **Answer:** 12.4 pounds. The

distribution of adult dogs in the shelter is ✓

Answer: positively skewed, with a median of 35.3 pounds and an IQR of 40.4 pounds. Half of the dogs at the shelter do weigh much more, including one that weighs ✓ **Answer:** 131.00). As the two

distributions are to be compared, and one distribution is skewed, the data shows that the median weight for both groups is ✓

Answer: 8.5 for cats and 35.3 for dogs.

A 13-pound cat ✓ **Answer:** would not be typical at the shelter. On the other hand, about 75% of all dogs at the shelter weigh more than 13 pounds. Overall, the distributions of weights for adult cats and adult dogs at the shelter differ both in shape and in measures of center and spread. Cats generally weigh less and have ✓

Answer: less variation in their weights than dogs, while dogs tend to weigh more and have ✓ **Answer:** more variability.

You have used 1 of 2 submissions

- ▶ Week 3:
Bivariate
Distributions
- ▶ Week 4:
Bivariate
Distributions
(Categorical
Data)

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