

Week 2: Data Display

Display Types & Anatomy of Charts

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Goals

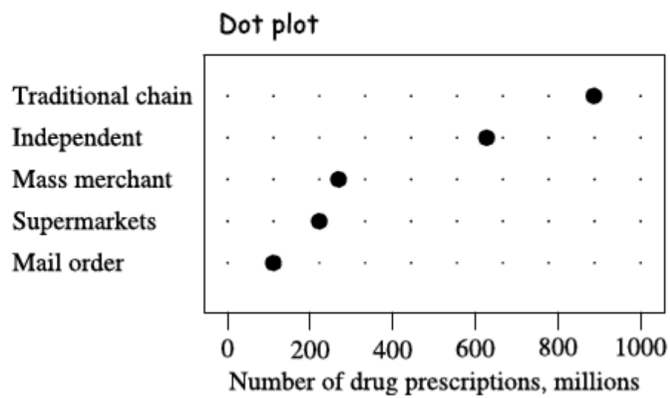
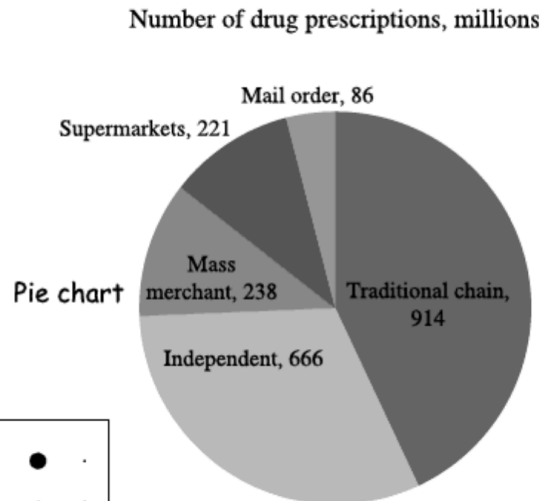
- review display types
- review anatomy of a graph
- group activity

Display Types

Display Types

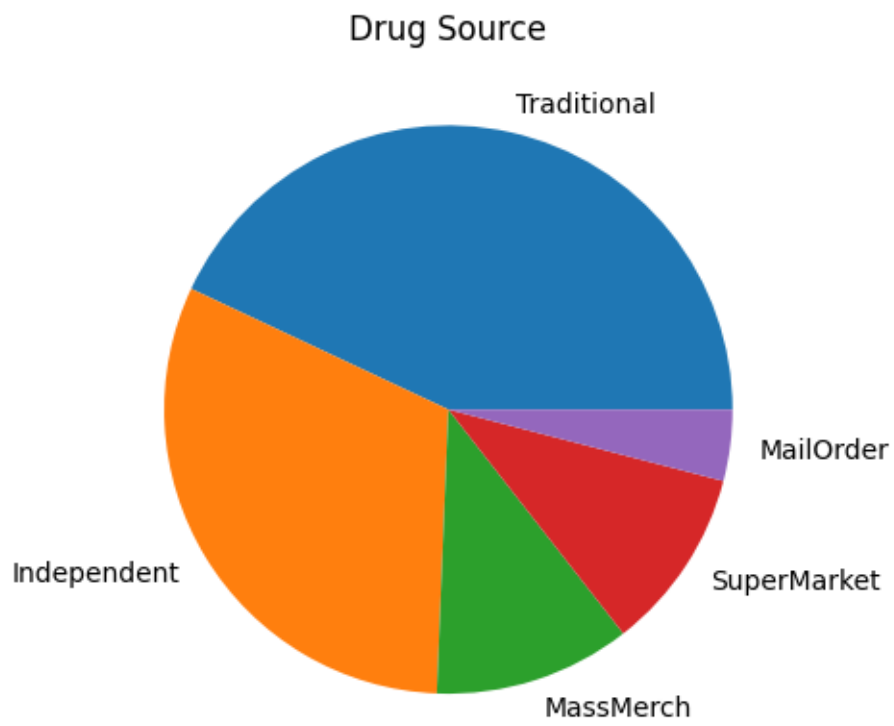
Number of drug prescriptions, millions	
Traditional chain	914
Independent	666
Mass merchant	238
Supermarkets	221
Mail order	86

Table

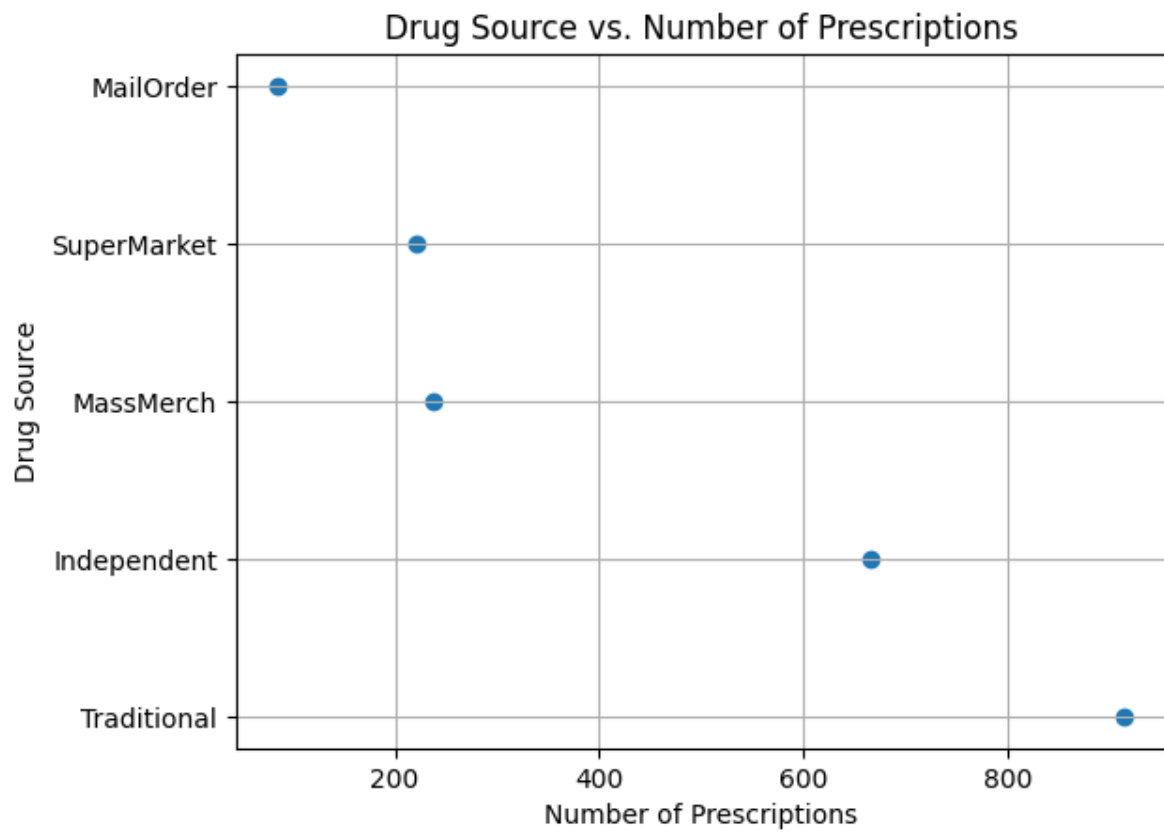


- data table
- pie chart
- point or dot plot

Pie Chart



Dot Plot

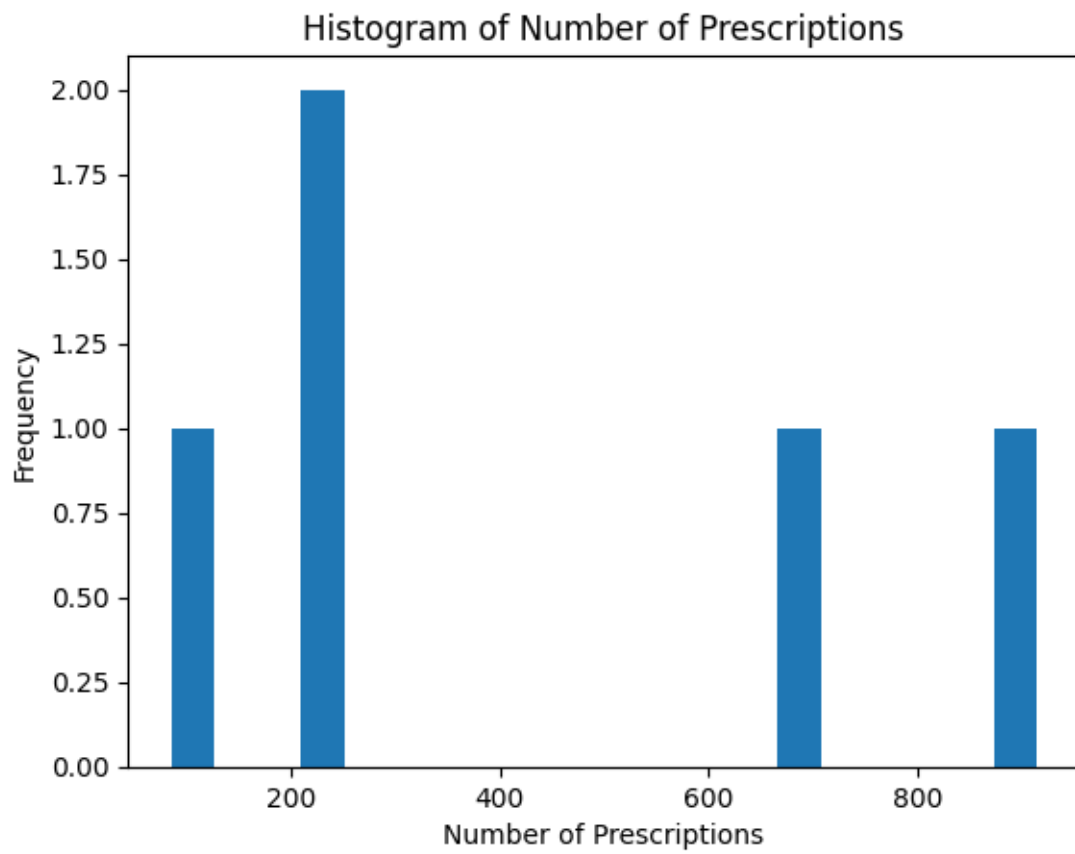


Additional Types

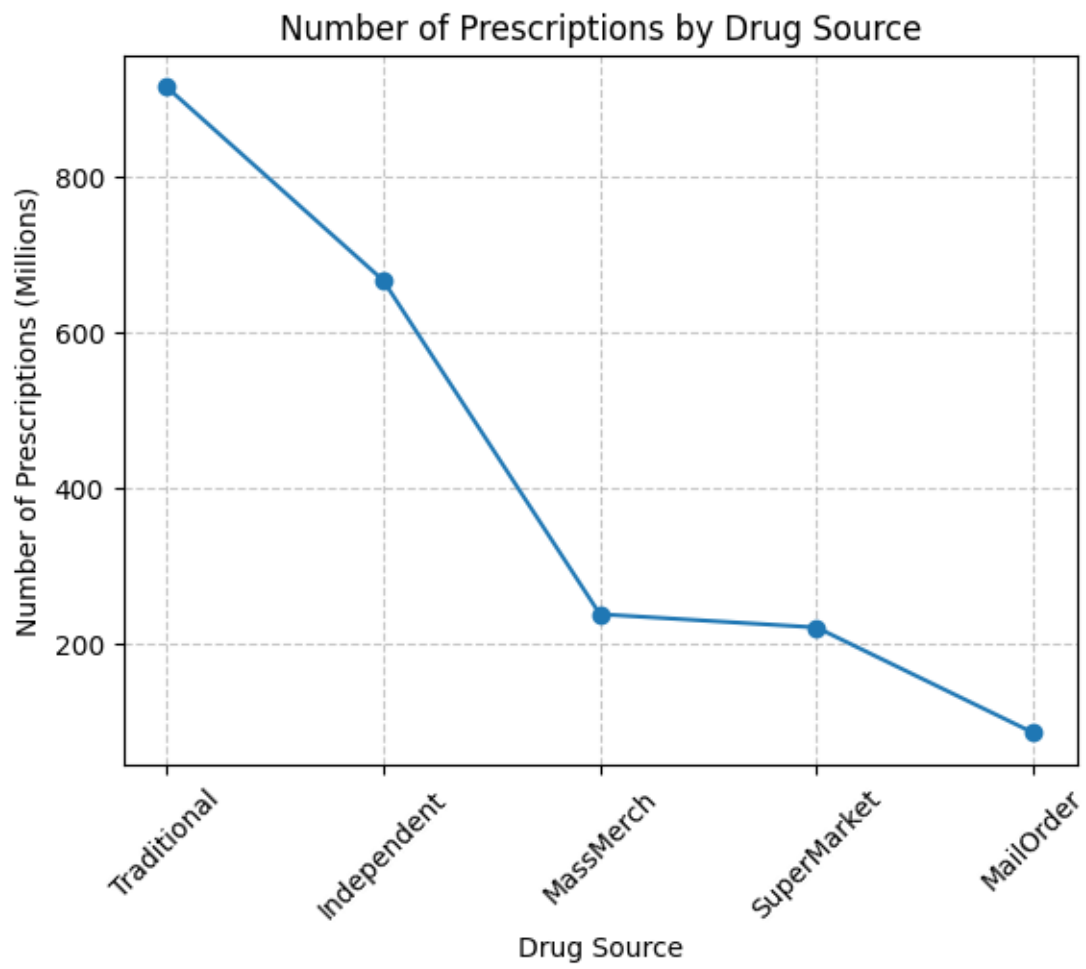
- histogram
-
- bar plot
- line plot
- scatter plot
-
- heat map
- box and whisker plot
- ← occurrences (binned)
- ← processed categories
- ← suggestion of continuity
- ← looking for relationships in continuous data

- \leftarrow three variables in 2D
- \leftarrow statistics about single variable

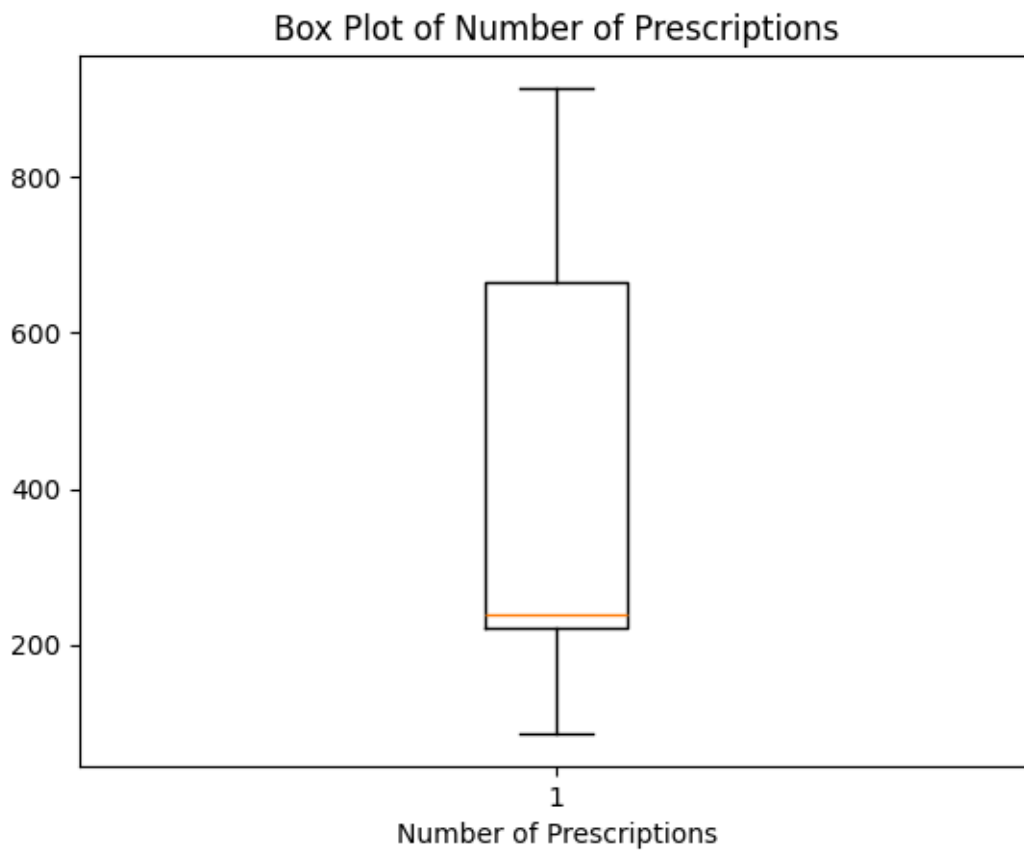
Histogram



Line Plot



Box and Whisker Plot



More Example Data - Whiteboard

TABLE 2.4 Contingency Table Summarizing Counts of Cars Based on the Number of Cylinders and Ranges of Fuel Efficiency (mpg)

	Cylinders = 3	Cylinders = 4	Cylinders = 5	Cylinders = 6	Cylinders = 8	Totals
mpg (5.0–10.0)	0	0	0	0	1	1
mpg (10.0–15.0)	0	0	0	0	52	52
mpg (15.0–20.0)	2	4	0	47	45	98
mpg (20.0–25.0)	2	39	1	29	4	75
mpg (25.0–30.0)	0	70	1	4	1	76
mpg (30.0–35.0)	0	53	0	2	0	55
mpg (35.0–40.0)	0	25	1	1	0	27
mpg (40.0–45.0)	0	7	0	0	0	7
mpg (45.0–50.0)	0	1	0	0	0	1
<i>Totals</i>	4	199	3	83	103	392

- \leftarrow occurrences (binned)
- \leftarrow processed categories
- \leftarrow suggestion of continuity
- \leftarrow looking for relationships in continuous data
- \leftarrow three variables in 2D
- \leftarrow statistics about single variable

Anatomy of a Graph

Terminology

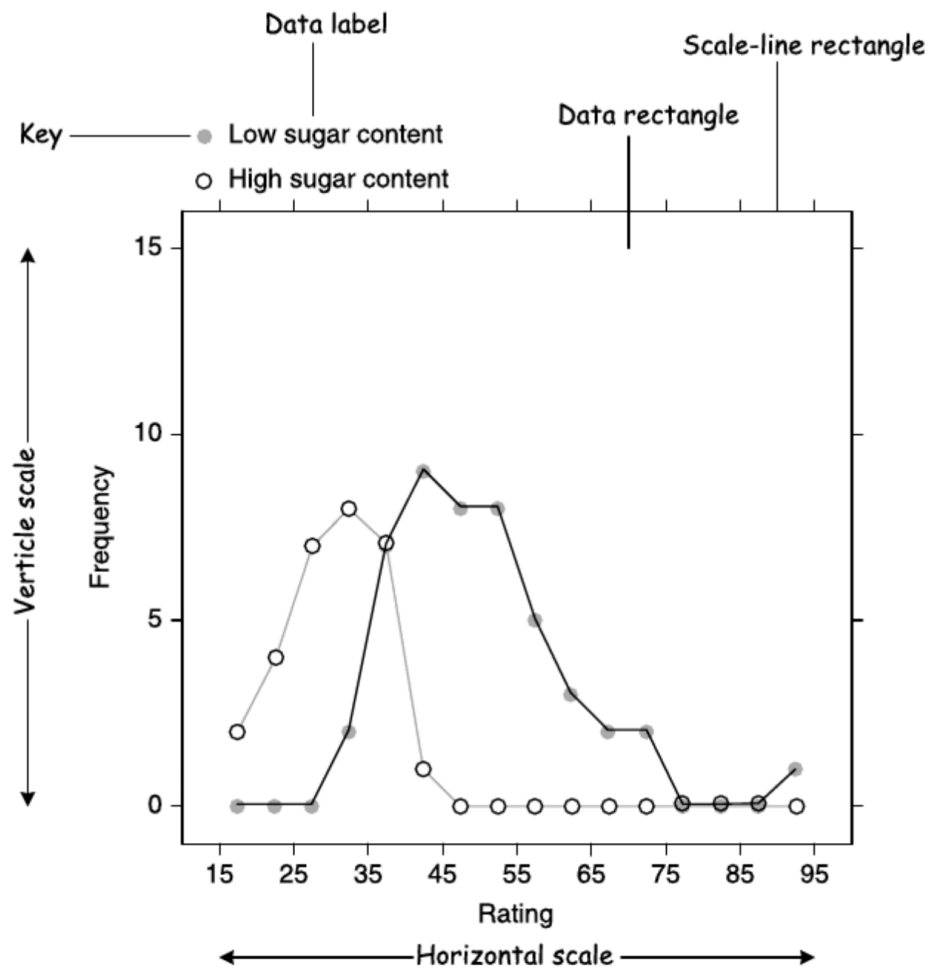


Figure 2.13 Anatomy of a graph

- legend
- markers
- marker labels
- axis labels
- axis units
- tick marks
- title
- caption
- panels

Group Activity

- Form pairs
- [Take notes](#)
- Interview your partner to find out about a data visualization that they recently admired
- What did the visualization make clear that was unclear before?
- What were all the salient features used to communicate information?
- Present your partner's visualization