

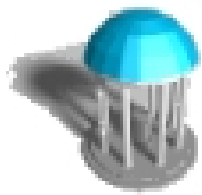
The UNIVERSITY of NORTH CAROLINA
at CHAPEL HILL

STOR 155 Introductory Statistics

Lecture 3: Displaying Distributions with Numbers



- Graphical Visualization: **Shape**
 - Bar Graph
 - Pie Chart
 - Stem plot
 - Histogram
 - Time plot (*not for distribution, but for changing pattern over time*)
- Numerical Summary: **Center and Spread**
 - Center:
 - Mean, Median and Mode
 - Spread:
 - Quartiles, Five-number summary and Boxplot
 - Standard Deviation

**TABLE 1.10**

Fuel economy (miles per gallon) for model year 2004 vehicles

Two-seater cars			Minicompact cars		
Model	City	Highway	Model	City	Highway
Acura NSX	17	24	Aston Martin Vanquish	12	19
Audi TT Roadster	20	28	Audi TT Coupe	21	29
BMW Z4 Roadster	20	28	BMW 325CI	19	27
Cadillac XLR	17	25	BMW 330CI	19	28
Chevrolet Corvette	18	25	BMW M3	16	23
Dodge Viper	12	20	Jaguar XK8	18	26
Ferrari 360 Modena	11	16	Jaguar XKR	16	23
Ferrari Maranello	10	16	Lexus SC 430	18	23
Ford Thunderbird	17	23	Mini Cooper	25	32
Honda Insight	60	66	Mitsubishi Eclipse	23	31
Lamborghini Gallardo	9	15	Mitsubishi Spyder	20	29
Lamborghini Murcielago	9	13	Porsche Cabriolet	18	26
Lotus Esprit	15	22	Porsche Turbo 911	14	22
Maserati Spyder	12	17			
Mazda Miata	22	28			
Mercedes-Benz SL500	16	23			
Mercedes-Benz SL600	13	19			
Nissan 350Z	20	26			
Porsche Boxster	20	29			
Porsche Carrera 911	15	23			
Toyota MR2	26	32			

Table 1-10*Introduction to the Practice of Statistics, Fifth Edition*

© 2005 W. H. Freeman and Company

- What is the average highway (city) mileage?
- What is the “middle value” of highway (city) mileage?