

Analyzing Dot Plots

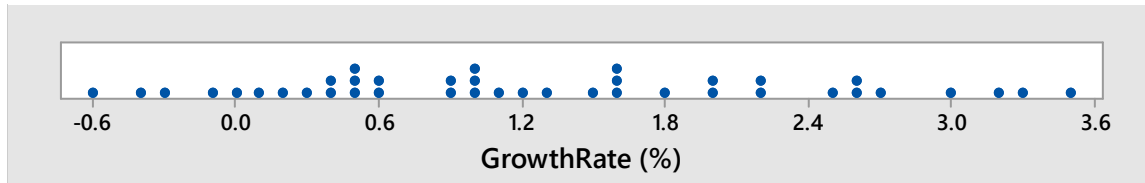
The key values to point out for a dot plot are the minimum data value, the maximum data value and the mode, if any exists.

The skewness of the data should be noted. Is the data is skewed to the left, skewed to the right, or is symmetric?

If there are clear groupings of data values, that should be noted as well.

Example 1

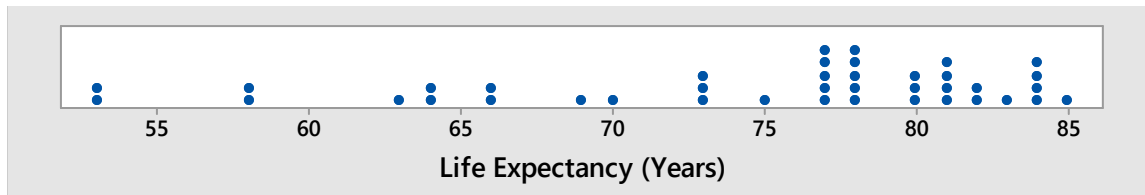
Population Growth Rates for a Sample of 40 Countries *created by D. Gurney*



The population growth rates extend from about -0.6% to about 3.5%. There are three modes at about 0.5%, 1%, and 1.6%. The data seems to be slightly skewed to the right.

Example 2

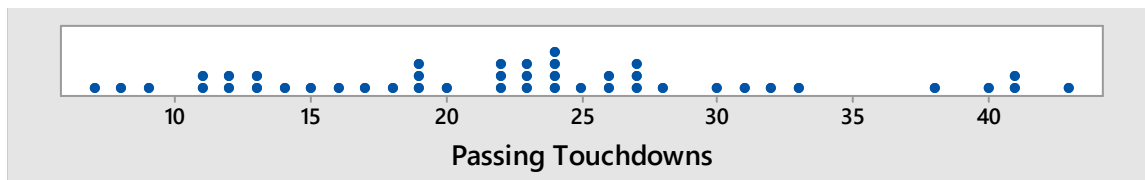
Female Life Expectancy for a Sample of 40 Countries *created by D. Gurney*



The female life expectancies extend from about 53 years to about 85 years. There are two modes at about 77 and 78 years. The data is skewed to the left with extreme values at 53 and 58 on the lower end of the scale.

Example 3

Passing Touchdowns for a Sample of 44 College Quarterbacks from the 2016 Season *created by D. Gurney*

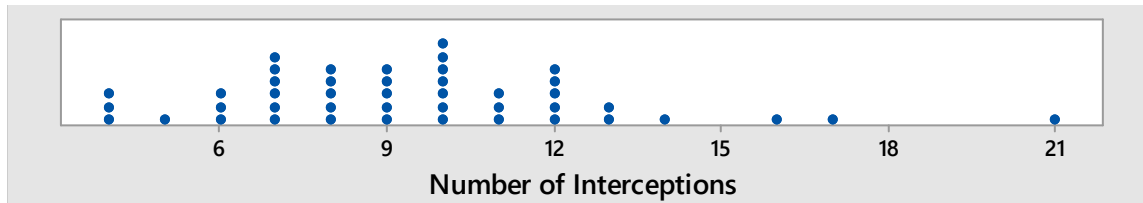


The number of touchdowns thrown extends from about 7 to about 43. The mode is about 24 touchdowns. The graph seems to be skewed to the right with a large gap between 33 and 38.

Example 4

Interceptions Thrown for a Sample of 44 College Quarterbacks from the 2016 Season

created by D. Gurney

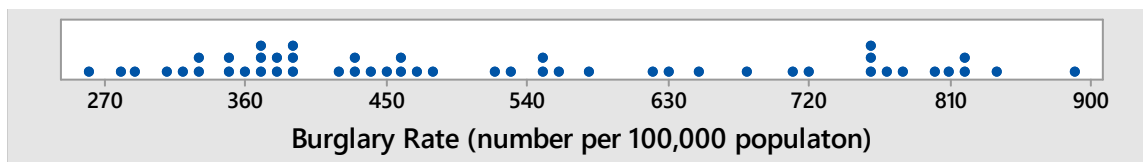


The number of interceptions extends from about 4 to about 21. The mode is about 10, with a frequency of 7. The graph is skewed right. 21 seems to be an extreme value.

Example 5

2014 Burglary Rates for the 50 United States

created by D. Gurney

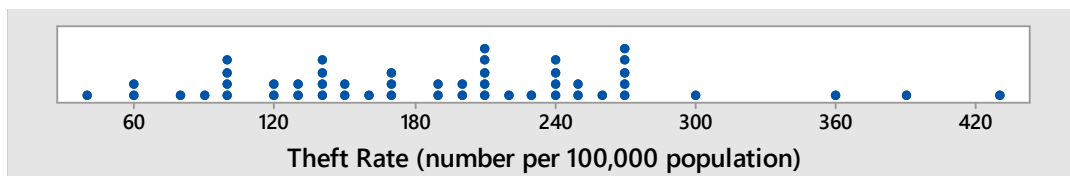


The burglary rates extend from about 260 per 100,000 to about 890 per 100,000. There are three modes at about 370, 390 and 760. The frequency of these modes is three. The data appears to be skewed to the right with the major concentration being between 330 and 430 with a lot of data tailing off to the right of this interval.

Example 6

2014 Motor Vehicle Theft Rates for the 50 United States

created by D. Gurney

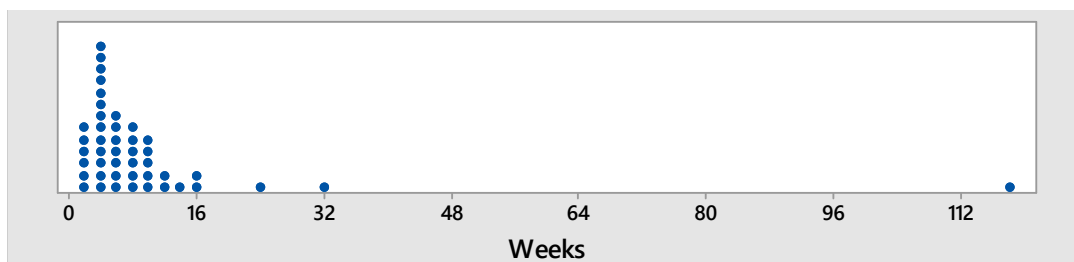


The theft rate extends from about 40 per 100,000 to about 430 per 100,000. There are two modes at about 210 and 270. The graph is skewed to the right with four extreme values between 270 and 430.

Example 7

The Number of Weeks in Theaters for 45 Movies Showing on 7/22/2108

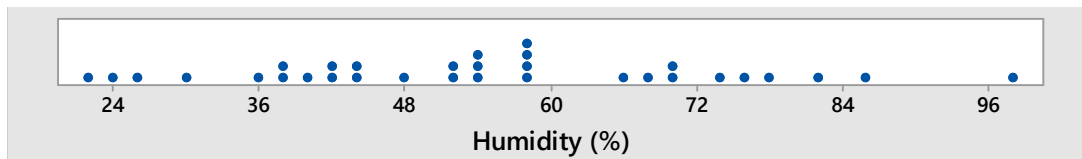
created by D. Gurney



The values extend from about 2 weeks to about 116 weeks. The mode seems to be about 4 weeks with a frequency of 13. The graph is skewed to the right. Most of the values are at or below 16, but there are three extreme values at about 24, 32 and 116 weeks.

Example 8

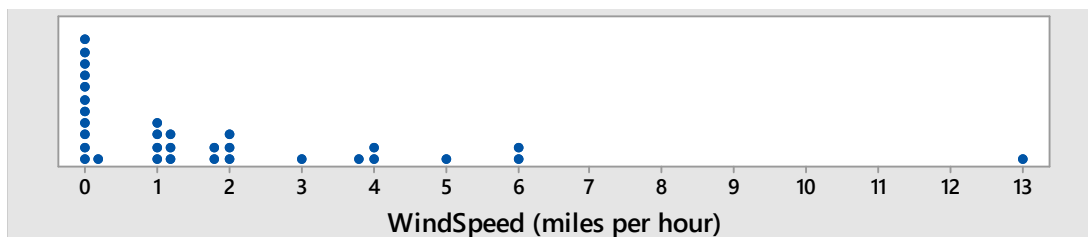
Humidity Readings for 32 Western U.S. Cities on 11/4/2016 created by D. Gurney



The humidity readings extend from about 22% to about 98%. The mode is about 58% with a frequency of 4. The readings seem to be slightly skewed to the right. The maximum reading of 98% is quite a bit larger than the next highest reading of about 86%.

Example 9

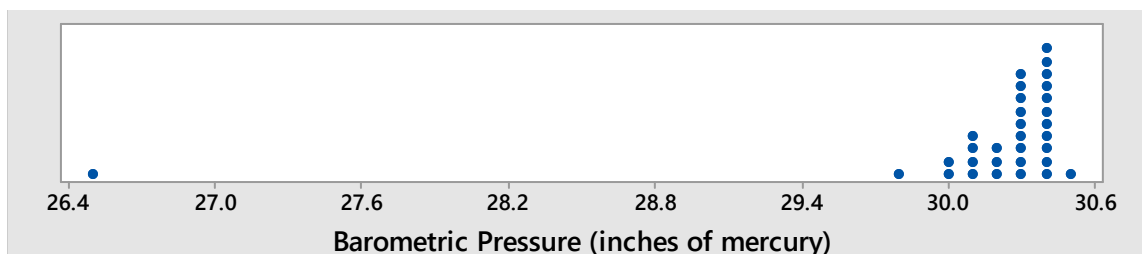
Wind Speed Readings for 32 Western U.S. Cities on 11/4/2016 created by D. Gurney



The wind speeds extend from 0 miles per hour to about 13 miles per hour. The mode is at 0 with a frequency of 11. The graph is skewed right. There is a large gap between 13 and the next largest speed of 6 miles per hour.

Example 10

Barometric Pressure Readings for 32 Western U.S. Cities on 11/4/2016 created by D. Gurney



The minimum of the pressure readings is at about 26.5 inches, which should be noted has a large separation between it and most of the other pressure readings. The next nearest minimum is about 29.8 inches. The maximum value is about 30.5 inches. The mode is about 30.4 inches with a frequency of 11. A close second is 30.3 inches with a frequency of 9.