

# SPSS Business Forecasting and Data Analysis Assignment

CAR\_SALES: see Example

### Frequency Command

**Frequency Command**

Click **Analysis** → **Duration** → **Statistics** → **Frequency List**  
In the **Frequency List** dialog box, click **OK** to generate the frequency list.

### Frequency Output

Measures of Central Tendency and Measures of Dispersion for a Single Group

### Running the Measures of Central Tendency and Dispersion for a Single Group Command in SPSS

SYMP\_Elavendulo

[illegible]

Click on Dollars button.  
Made and Mean. Stearns double. Minimum and Maximum are  
colored.  
Click Continue and her OK.

Cultural Differences article 1, minimum, maximum, mean and SD

## Frequency Distributions for Multiple Variables

[illegible]

### Determining Percentile Ranks

**Determining Percentile Rank**

1. Arrange the data in ascending order.

2. Count the number of values less than the value of interest.

3. Divide the number of values less than the value of interest by the total number of values.

4. Multiply the result by 100 to get the percentile rank.

Example: Find the percentile rank of 75 in the data set: 65, 70, 75, 80, 85, 90, 95, 100.

Step 1: 65, 70, 75, 80, 85, 90, 95, 100

Step 2: 6 values are less than 75.

Step 3:  $\frac{6}{8} = 0.75$

Step 4:  $0.75 \times 100 = 75$

The percentile rank of 75 is 75.

## Conclusion

Descriptive statistics are fun and easy!

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# SPSS Business Forecasting and Data Analysis Assignment

CAR\_SALES.see Example

### Frequency Command

**Frequency Command**

- Plot Analysis -> Descriptive Statistics -> Frequency
- Label Bin: yes
- Display the frequency, cumulative frequency, and percentage of total: yes
- Normal Q-Q Plot, Histogram, etc. -> OK

### Frequency Output

Measures of Central Tendency and Measures of Dispersion for a Single Group

### Running the Measures of Central Tendency and Dispersion for a Single Group Command in SPSS

SMP\_Encoder.c

Chapman, J. & Deshpande, O. 2005. A hierarchical, knowledge-based guide to *Maricostella* for

Click on "Details button"  
 Move the Mouse "Start" on desktop, "Minimize" and "Maximize" are  
 selected.  
 Click on "Close" and then "OK"

Cultural Studies article 1, minimum maximum mean and SD

## Frequency Distributions for Multiple Variables

Let's start with a look at Item 10 from Chapter 2:

10. Suppose that an agent, working for a U.S. company, is paid a salary of \$100,000 per year. The agent is also paid a bonus of \$10,000 per year. The agent is also paid a bonus of \$10,000 per year. The agent is also paid a bonus of \$10,000 per year.

### Determining Percentile Ranks

*Determining Percentile Rank*

1. Count the number of scores below the score of interest.

2. Divide the number of scores below the score of interest by the total number of scores.

3. Multiply the result by 100 to get the percentile rank.

Example: If there are 10 scores and 3 are below the score of interest, the percentile rank is  $\frac{3}{10} \times 100 = 30$ .

## Conclusion

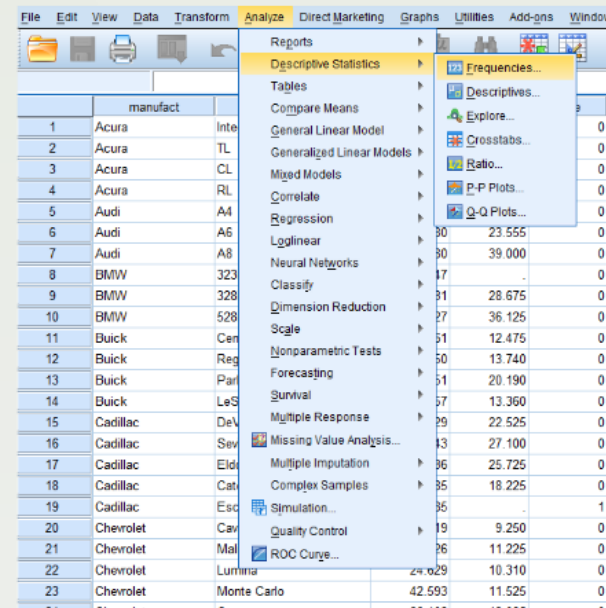
Descriptive statistics are fun and easy!

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# Frequency

- Provides more info than just a mean and standard deviation (SD)
- Able to determine percentile ranks
- Requires only 1 variable of any type





## *CAR\_SALES.sav Example*

Located at: C:/Program Files/IBM/SPSS/Statistics/20/  
Samples/English/car\_sales.sav



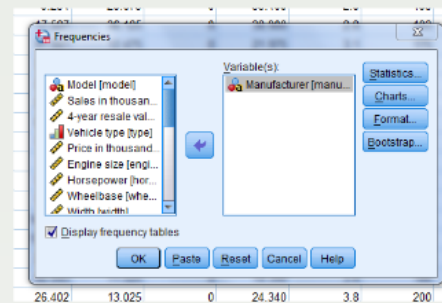
# Frequency Command

Click Analyze -> Descriptive Statistics -> Frequencies  
Dialog Box pops up

Transfer the variable you want the frequency for  
(Manufacturer in this case)

Make sure "Display frequency tables" option is checked

Click "OK" for your output





# *Frequency Distributions for Multiple Variables*

Use SAMPLE.sav data set from Chapter 1

Analyze -> Descriptive Statistics -> Crosstabs

Move "training" variable into "Row(s)" box

Move "work" variable into "Column(s)" box

(If more than 2 variables, enter them into unlabeled box under "Layer")

Click on "Cells" button, then "Row," "Column," and "Total" percentages

Click "Continue" and then "OK"

Output: Each level of each variable gets a row/column

A "Total" row/column is also added

Each cell contains the number of participants

The percentages for each cell are also shown (adding up to 100% horizontally and vertically)



# *Measures of Central Tendency and Measures of Dispersion for a Single Group*

Measures of central tendency: mean, median, and mode

Measures of dispersion: range and standard deviation

Standard Deviation is the square root of variance

When you find a mean, you must also find standard deviation

When you find a median, you must also find range





## *Running the Measures of Central Tendency and Dispersion for a Single Group Command on SPSS*

SAMPLE.sav data file

Analyze -> Descriptive Statistics -> Descriptives  
Move variable "grade" to "Variable(s)" box

Click on "Options" button

Make sure "Mean," "Standard deviation," "Minimum," and "Maximum" are selected

Click "Continue" and then "OK"

Output: Shows variable, N, minimum, maximum, mean, and SD

