

A8.3 (CD-ROM TOPIC) USING SPSS FOR CONFIDENCE INTERVAL ESTIMATION

Using SPSS for Confidence Interval Estimation for the Mean

You can use SPSS to calculate a confidence interval estimate for the population mean when σ is unknown. To calculate the confidence interval estimate for the population mean number of pounds required to break the insulators (Example 8.3 on page 269), open the **FORCE.SAV** file and do the following:

1. Select **Analyze** → **Descriptive Statistics** → **Explore**.
2. In the Explore dialog box (see Figure A8.5), enter **force** in the Dependent List: edit box. Click the **Statistics** button.
3. In the Explore: Statistics dialog box (see Figure A8.6), select the **Descriptives Confidence Interval for Mean** check box and enter **95** in the edit box. Click the **Continue** button of the Explore: Statistics dialog box. Click the **OK** button.

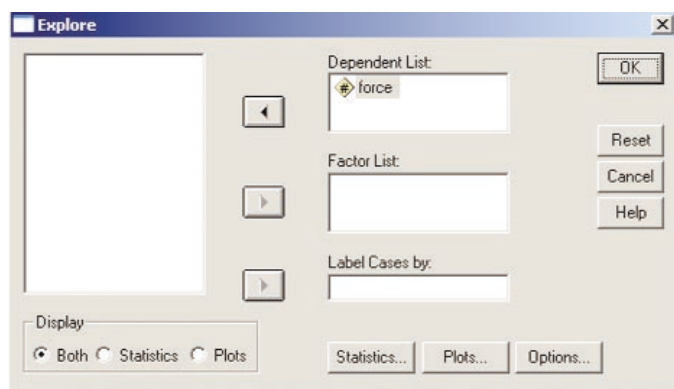


FIGURE A8.5 SPSS Explore Dialog Box

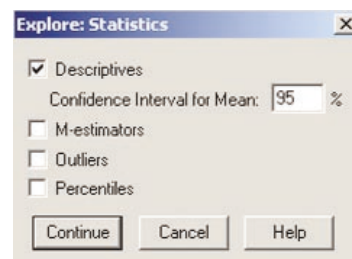


FIGURE A8.6 SPSS Explore: Statistics Dialog Box

Figure A8.7 is the SPSS output containing the confidence interval estimate of the mean force.

Descriptives			Statistic	Std. Error
force	Mean		1723.40	16.350
	95% Confidence Interval for Mean	Lower Bound	1689.96	
		Upper Bound	1756.84	
	5% Trimmed Mean		1726.00	
	Median		1735.00	
	Variance		8019.352	
	Std. Deviation		89.551	
	Minimum		1522	
	Maximum		1870	
	Range		348	
	Interquartile Range		125	
	Skewness		-.367	.427
	Kurtosis		-.244	.833

FIGURE A8.7 SPSS Confidence Interval Estimate of the Mean Force