Data set for n of 30 with 100 resampling

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Mean | SD | Median |
| 1 | 6,001.5 | 2,606.5 | 5,078.0 |
| 2 | 6,175.8 | 2,616.7 | 5,006.5 |
| 3 | 6,944.7 | 3,110.7 | 5,848.5 |
| 4 | 6,756.0 | 3,656.8 | 5,138.0 |
| 5 | 5,860.8 | 2,990.1 | 4,769.5 |
| 6 | 6,004.5 | 3,186.5 | 4,672.0 |
| 7 | 5,805.7 | 2,407.1 | 4,906.0 |
| 8 | 6,466.9 | 3,193.0 | 5,031.0 |
| 9 | 5,805.7 | 2,407.1 | 4,906.0 |
| 10 | 6,466.9 | 3,193.0 | 5,031.0 |
| 11 | 6,415.7 | 3,370.0 | 4,619.5 |
| 12 | 6,905.0 | 3,344.8 | 5,798.5 |
| 13 | 6,644.2 | 3,462.7 | 4,997.0 |
| 14 | 6,478.3 | 3,290.7 | 5,134.0 |
| 15 | 6,173.7 | 2,922.2 | 5,180.5 |
| 16 | 7,026.5 | 3,427.9 | 5,510.5 |
| 17 | 6,012.7 | 2,633.4 | 4,853.0 |
| 18 | 6,579.7 | 3,399.6 | 4,994.0 |
| 19 | 5,934.4 | 2,287.3 | 5,275.5 |
| 20 | 6,049.7 | 2,888.4 | 4,828.5 |
| 21 | 7,533.5 | 3,620.7 | 6,032.0 |
| 22 | 6,234.1 | 2,828.4 | 5,438.5 |
| 23 | 6,233.4 | 3,164.1 | 4,710.0 |
| 24 | 6,730.2 | 3,313.8 | 5,470.5 |
| 25 | 6,493.6 | 3,495.4 | 5,197.0 |
| 26 | 6,427.6 | 2,978.6 | 5,284.0 |
| 27 | 6,682.5 | 3,299.6 | 5,388.0 |
| 28 | 5,349.7 | 1,641.7 | 4,710.0 |
| 29 | 5,776.4 | 2,688.7 | 4,811.5 |
| 30 | 6,181.9 | 3,059.1 | 4,960.0 |
| 31 | 6,260.9 | 2,923.7 | 4,994.0 |
| 32 | 5,605.0 | 2,258.7 | 4,841.5 |
| 33 | 6,346.8 | 3,404.3 | 5,019.0 |
| 34 | 6,256.0 | 2,951.2 | 5,300.5 |
| 35 | 6,731.6 | 3,695.5 | 5,053.0 |
| 36 | 5,903.5 | 2,906.9 | 4,728.0 |
| 37 | 5,721.5 | 2,778.9 | 4,806.5 |
| 38 | 5,398.4 | 2,421.1 | 4,476.0 |
| 39 | 5,514.9 | 2,502.4 | 4,552.5 |
| 40 | 5,422.3 | 2,447.3 | 4,672.0 |
| 41 | 5,516.0 | 2,279.7 | 4,741.0 |
| 42 | 5,630.3 | 1,959.9 | 5,205.5 |
| 43 | 5,895.5 | 2,132.9 | 5,388.0 |
| 44 | 6,644.8 | 3,422.2 | 5,447.0 |
| 45 | 6,186.1 | 3,077.5 | 4,806.5 |
| 46 | 5,978.5 | 3,202.7 | 4,613.5 |
| 47 | 6,586.4 | 3,197.0 | 5,753.5 |
| 48 | 6,575.2 | 3,404.0 | 5,053.0 |
| 49 | 6,025.7 | 2,407.2 | 5,388.0 |
| 50 | 6,004.2 | 2,672.8 | 5,300.5 |
| 51 | 5,465.1 | 1,792.3 | 5,091.5 |
| 52 | 6,524.1 | 3,246.5 | 4,853.0 |
| 53 | 6,253.6 | 2,923.7 | 4,853.0 |
| 54 | 6,832.0 | 3,045.3 | 5,759.0 |
| 55 | 5,563.0 | 2,516.9 | 4,581.5 |
| 56 | 6,031.0 | 2,839.8 | 5,061.5 |
| 57 | 5,706.3 | 2,439.8 | 5,146.5 |
| 58 | 6,189.4 | 3,233.6 | 4,841.5 |
| 59 | 6,056.7 | 3,151.9 | 4,736.0 |
| 60 | 6,140.2 | 3,063.0 | 4,912.0 |
| 61 | 6,556.8 | 3,233.1 | 4,984.5 |
| 62 | 5,807.0 | 2,299.8 | 4,994.0 |
| 63 | 6,402.9 | 2,788.5 | 5,758.5 |
| 64 | 6,239.8 | 2,810.7 | 5,163.0 |
| 65 | 5,729.1 | 2,084.7 | 5,300.5 |
| 66 | 5,957.0 | 2,860.7 | 4,741.0 |
| 67 | 7,148.7 | 3,294.0 | 6,097.0 |
| 68 | 6,363.3 | 3,057.6 | 5,205.5 |
| 69 | 6,289.9 | 3,345.6 | 4,912.0 |
| 70 | 5,822.5 | 2,780.3 | 4,756.5 |
| 71 | 5,862.9 | 2,990.8 | 4,833.5 |
| 72 | 6,536.7 | 3,499.9 | 5,053.0 |
| 73 | 6,103.7 | 2,999.8 | 4,912.0 |
| 74 | 6,018.0 | 2,533.9 | 5,006.5 |
| 75 | 5,357.2 | 2,607.5 | 4,490.5 |
| 76 | 5,205.4 | 1,554.9 | 4,656.0 |
| 77 | 6,043.8 | 2,760.7 | 4,997.0 |
| 78 | 5,845.0 | 2,647.0 | 5,138.0 |
| 79 | 5,957.1 | 2,527.5 | 5,097.5 |
| 80 | 6,023.2 | 3,357.8 | 4,710.0 |
| 81 | 6,391.0 | 3,400.2 | 5,006.5 |
| 82 | 6,160.9 | 3,128.3 | 5,053.0 |
| 83 | 5,916.0 | 2,657.9 | 5,006.5 |
| 84 | 6,495.0 | 3,286.4 | 5,180.5 |
| 85 | 5,083.4 | 1,486.8 | 4,672.0 |
| 86 | 6,409.4 | 3,375.9 | 4,797.5 |
| 87 | 6,079.1 | 2,676.1 | 5,019.0 |
| 88 | 5,627.9 | 2,293.6 | 4,819.5 |
| 89 | 6,041.0 | 2,728.6 | 4,736.0 |
| 90 | 5,771.6 | 2,419.9 | 4,715.0 |
| 91 | 6,100.1 | 3,015.3 | 5,091.5 |
| 92 | 7,037.1 | 3,445.5 | 5,798.5 |
| 93 | 6,444.9 | 3,557.6 | 4,728.0 |
| 94 | 5,980.7 | 3,118.0 | 4,510.0 |
| 95 | 6,033.5 | 2,704.8 | 4,875.0 |
| 96 | 6,620.7 | 3,219.4 | 5,205.5 |
| 97 | 5,984.4 | 2,606.0 | 5,061.5 |
| 98 | 6,071.8 | 2,817.3 | 4,914.0 |
| 99 | 6,648.5 | 3,141.0 | 5,597.5 |
| 100 | 5,456.7 | 1,748.1 | 5,006.5 |

. sysuse auto

(1978 Automobile Data)

. su price, de

 Price

-------------------------------------------------------------

 Percentiles Smallest

 1% 3291 3291

 5% 3748 3299

10% 3895 3667 Obs 74

25% 4195 3748 Sum of Wgt. 74

50% 5006.5 Mean **6165.257**

 Largest Std. Dev. 2949.496

75% 6342 13466

90% 11385 13594 Variance 8699526

95% 13466 14500 Skewness 1.653434

99% 15906 15906 Kurtosis 4.819188

. use ResamplingData.dta, clear

. su mean, de

 Mean

-------------------------------------------------------------

 Percentiles Smallest

 1% 5144 5083

 5% 5410 5205

10% 5539.5 5350 Obs 100

25% 5862 5357 Sum of Wgt. 100

50% 6089.5 Mean **6147.43**

 Largest Std. Dev. 450.2099

. di 3000/sqrt(30)

547.72256

75% 6467 7027

90% 6706.5 7037 Variance 202688.9

95% 6925 7149 Skewness .2236937

99% 7341 7533 Kurtosis 3.13846

Population N = 74



Resampling with n = 30 for 100 times



Data set for n of 30 with 100 resampling

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No. | Mean | SD | SE | LL-95%CI | UL-95%CI |
| 1 | 6,001.5 | 2,606.5 | 476.0 | 5,068.1 | 6,933.9 |
| 2 | 6,175.8 | 2,616.7 | 477.8 | 5,239.5 | 7,112.5 |
| 3 | 6,944.7 | 3,110.7 | 568.0 | 5,831.7 | 8,058.3 |
| 4 | 6,756.0 | 3,656.8 | 667.7 | 5,447.4 | 8,064.6 |
| 5 | 5,860.8 | 2,990.1 | 545.9 | 4,791.0 | 6,931.0 |
| 6 | 6,004.5 | 3,186.5 | 581.9 | 4,863.5 | 7,144.5 |
| 7 | 5,805.7 | 2,407.1 | 439.5 | 4,944.7 | 6,667.3 |
| 8 | 6,466.9 | 3,193.0 | 583.0 | 5,324.4 | 7,609.6 |
| 9 | 5,805.7 | 2,407.1 | 439.5 | 4,944.7 | 6,667.3 |
| 10 | 6,466.9 | 3,193.0 | 583.0 | 5,324.4 | 7,609.6 |
| 11 | 6,415.7 | 3,370.0 | 615.3 | 5,210.1 | 7,621.9 |
| 12 | 6,905.0 | 3,344.8 | 610.7 | 5,708.0 | 8,102.0 |
| 13 | 6,644.2 | 3,462.7 | 632.3 | 5,404.8 | 7,883.2 |
| 14 | 6,478.3 | 3,290.7 | 600.9 | 5,300.3 | 7,655.7 |
| 15 | 6,173.7 | 2,922.2 | 533.5 | 5,128.4 | 7,219.6 |
| 16 | 7,026.5 | 3,427.9 | 625.9 | 5,800.3 | 8,253.7 |
| 17 | 6,012.7 | 2,633.4 | 480.7 | 5,070.8 | 6,955.2 |
| 18 | 6,579.7 | 3,399.6 | 620.8 | 5,363.3 | 7,796.7 |
| 19 | 5,934.4 | 2,287.3 | 417.5 | 5,115.6 | 6,752.4 |
| 20 | 6,049.7 | 2,888.4 | 527.3 | 5,016.5 | 7,083.5 |
| 21 | 7,533.5 | 3,620.7 | 661.1 | 6,237.2 | 8,828.8 |
| 22 | 6,234.1 | 2,828.4 | 516.3 | 5,222.0 | 7,246.0 |
| 23 | 6,233.4 | 3,164.1 | 577.7 | 5,100.8 | 7,365.2 |
| 24 | 6,730.2 | 3,313.8 | 605.1 | 5,544.1 | 7,915.9 |
| 25 | 6,493.6 | 3,495.4 | 638.1 | 5,243.3 | 7,744.7 |
| 26 | 6,427.6 | 2,978.6 | 543.9 | 5,362.0 | 7,494.0 |
| 27 | 6,682.5 | 3,299.6 | 602.5 | 5,502.1 | 7,863.9 |
| 28 | 5,349.7 | 1,641.7 | 299.8 | 4,762.4 | 5,937.6 |
| 29 | 5,776.4 | 2,688.7 | 490.9 | 4,813.8 | 6,738.2 |
| 30 | 6,181.9 | 3,059.1 | 558.5 | 5,087.4 | 7,276.6 |
| 31 | 6,260.9 | 2,923.7 | 533.8 | 5,214.7 | 7,307.3 |
| 32 | 5,605.0 | 2,258.7 | 412.4 | 4,796.6 | 6,413.4 |
| 33 | 6,346.8 | 3,404.3 | 621.5 | 5,128.9 | 7,565.1 |
| 34 | 6,256.0 | 2,951.2 | 538.8 | 5,200.0 | 7,312.0 |
| 35 | 6,731.6 | 3,695.5 | 674.6 | 5,409.8 | 8,054.2 |
| 36 | 5,903.5 | 2,906.9 | 530.7 | 4,863.7 | 6,944.3 |
| 37 | 5,721.5 | 2,778.9 | 507.4 | 4,727.5 | 6,716.5 |
| 38 | 5,398.4 | 2,421.1 | 442.0 | 4,531.7 | 6,264.3 |
| 39 | 5,514.9 | 2,502.4 | 456.8 | 4,619.7 | 6,410.3 |
| 40 | 5,422.3 | 2,447.3 | 446.8 | 4,546.4 | 6,297.6 |
| 41 | 5,516.0 | 2,279.7 | 416.3 | 4,700.1 | 6,331.9 |
| 42 | 5,630.3 | 1,959.9 | 357.8 | 4,928.6 | 6,331.4 |
| 43 | 5,895.5 | 2,132.9 | 389.4 | 5,131.7 | 6,658.3 |
| 44 | 6,644.8 | 3,422.2 | 624.8 | 5,420.5 | 7,869.5 |
| 45 | 6,186.1 | 3,077.5 | 561.8 | 5,084.9 | 7,287.1 |
| 46 | 5,978.5 | 3,202.7 | 584.8 | 4,832.8 | 7,125.2 |
| 47 | 6,586.4 | 3,197.0 | 583.7 | 5,442.0 | 7,730.0 |
| 48 | 6,575.2 | 3,404.0 | 621.5 | 5,356.9 | 7,793.1 |
| 49 | 6,025.7 | 2,407.2 | 439.5 | 5,164.7 | 6,887.3 |
| 50 | 6,004.2 | 2,672.8 | 488.0 | 5,047.5 | 6,960.5 |
| 51 | 5,465.1 | 1,792.3 | 327.2 | 4,823.7 | 6,106.3 |
| 52 | 6,524.1 | 3,246.5 | 592.6 | 5,362.4 | 7,685.6 |
| 53 | 6,253.6 | 2,923.7 | 533.8 | 5,207.7 | 7,300.3 |
| 54 | 6,832.0 | 3,045.3 | 555.9 | 5,742.4 | 7,921.6 |
| 55 | 5,563.0 | 2,516.9 | 459.5 | 4,662.3 | 6,463.7 |
| 56 | 6,031.0 | 2,839.8 | 518.5 | 5,014.7 | 7,047.3 |
| 57 | 5,706.3 | 2,439.8 | 445.5 | 4,832.9 | 6,579.1 |
| 58 | 6,189.4 | 3,233.6 | 590.4 | 5,031.7 | 7,346.3 |
| 59 | 6,056.7 | 3,151.9 | 575.5 | 4,929.1 | 7,184.9 |
| 60 | 6,140.2 | 3,063.0 | 559.2 | 5,043.9 | 7,236.1 |
| 61 | 6,556.8 | 3,233.1 | 590.3 | 5,400.1 | 7,713.9 |
| 62 | 5,807.0 | 2,299.8 | 419.9 | 4,984.0 | 6,630.0 |
| 63 | 6,402.9 | 2,788.5 | 509.2 | 5,405.0 | 7,401.0 |
| 64 | 6,239.8 | 2,810.7 | 513.2 | 5,234.1 | 7,245.9 |
| 65 | 5,729.1 | 2,084.7 | 380.7 | 4,982.9 | 6,475.1 |
| 66 | 5,957.0 | 2,860.7 | 522.3 | 4,933.2 | 6,980.8 |
| 67 | 7,148.7 | 3,294.0 | 601.4 | 5,970.3 | 8,327.7 |
| 68 | 6,363.3 | 3,057.6 | 558.3 | 5,268.7 | 7,457.3 |
| 69 | 6,289.9 | 3,345.6 | 610.9 | 5,092.6 | 7,487.4 |
| 70 | 5,822.5 | 2,780.3 | 507.6 | 4,828.2 | 6,817.8 |
| 71 | 5,862.9 | 2,990.8 | 546.1 | 4,792.7 | 6,933.3 |
| 72 | 6,536.7 | 3,499.9 | 639.0 | 5,284.5 | 7,789.5 |
| 73 | 6,103.7 | 2,999.8 | 547.7 | 5,030.5 | 7,177.5 |
| 74 | 6,018.0 | 2,533.9 | 462.6 | 5,111.2 | 6,924.8 |
| 75 | 5,357.2 | 2,607.5 | 476.2 | 4,423.7 | 6,290.3 |
| 76 | 5,205.4 | 1,554.9 | 283.9 | 4,648.6 | 5,761.5 |
| 77 | 6,043.8 | 2,760.7 | 504.1 | 5,056.0 | 7,032.0 |
| 78 | 5,845.0 | 2,647.0 | 483.3 | 4,897.8 | 6,792.2 |
| 79 | 5,957.1 | 2,527.5 | 461.4 | 5,052.7 | 6,861.3 |
| 80 | 6,023.2 | 3,357.8 | 613.1 | 4,821.4 | 7,224.6 |
| 81 | 6,391.0 | 3,400.2 | 620.8 | 5,174.3 | 7,607.7 |
| 82 | 6,160.9 | 3,128.3 | 571.1 | 5,041.7 | 7,280.3 |
| 83 | 5,916.0 | 2,657.9 | 485.3 | 4,964.8 | 6,867.2 |
| 84 | 6,495.0 | 3,286.4 | 599.9 | 5,319.1 | 7,670.9 |
| 85 | 5,083.4 | 1,486.8 | 271.5 | 4,550.9 | 5,615.1 |
| 86 | 6,409.4 | 3,375.9 | 616.4 | 5,200.9 | 7,617.1 |
| 87 | 6,079.1 | 2,676.1 | 488.6 | 5,121.4 | 7,036.6 |
| 88 | 5,627.9 | 2,293.6 | 418.8 | 4,807.1 | 6,448.9 |
| 89 | 6,041.0 | 2,728.6 | 498.2 | 5,064.4 | 7,017.6 |
| 90 | 5,771.6 | 2,419.9 | 441.8 | 4,906.0 | 6,638.0 |
| 91 | 6,100.1 | 3,015.3 | 550.5 | 5,021.1 | 7,178.9 |
| 92 | 7,037.1 | 3,445.5 | 629.2 | 5,803.9 | 8,270.1 |
| 93 | 6,444.9 | 3,557.6 | 649.6 | 5,171.8 | 7,718.2 |
| 94 | 5,980.7 | 3,118.0 | 569.3 | 4,865.2 | 7,096.8 |
| 95 | 6,033.5 | 2,704.8 | 493.9 | 5,065.0 | 7,001.0 |
| 96 | 6,620.7 | 3,219.4 | 587.7 | 5,469.1 | 7,772.9 |
| 97 | 5,984.4 | 2,606.0 | 475.8 | 5,051.5 | 6,916.5 |
| 98 | 6,071.8 | 2,817.3 | 514.3 | 5,064.0 | 7,080.1 |
| 99 | 6,648.5 | 3,141.0 | 573.5 | 5,525.0 | 7,773.0 |
| 100 | 5,456.7 | 1,748.1 | 319.1 | 4,831.5 | 6,082.5 |

There were 6/100 of the CIs that did not cover the true mean of **6165.257**

. li \* if LL > 6165.257 | UL < 6165.257

 +----------------------------------------------------+

 | no mean sd se LL UL |

 |----------------------------------------------------|

 21. | 21 7533 3621 661.1011 6237.242 8828.758 |

 28. | 28 5350 1642 299.7868 4762.418 5937.582 |

 51. | 51 5465 1792 327.1729 4823.741 6106.259 |

 76. | 76 5205 1555 283.9029 4648.55 5761.45 |

 85. | 85 5083 1487 271.4878 4550.884 5615.116 |

100. | 100 5457 1748 319.1397 4831.486 6082.514 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*GOOD LUCK for your STATISTICAL LITERACY\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*