

Bootstrapping

This guide provides instructions on the bootstrapping technique – a resampling method for estimating the sampling distribution of a statistic as a means to generate a confidence interval. Bootstrapping is available from many JMP reports.

Bootstrapping in JMP Report Windows

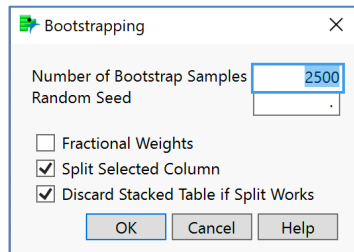
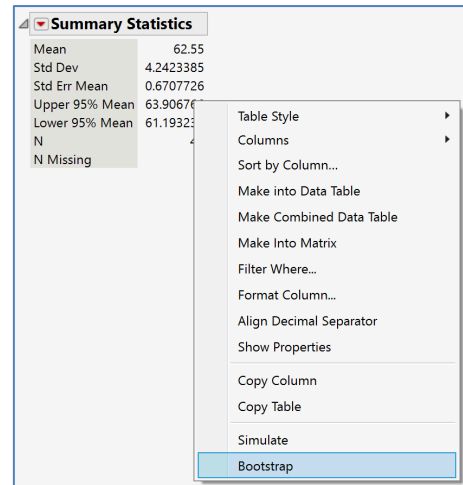
1. From an analysis platform report window, **right-click** on the report of interest and select **Bootstrap**.

In this example we use the Distribution platform and bootstrap the statistics in the Summary Statistics report for the continuous variable 'Height'.

2. In the Bootstrapping window (below, left), enter the desired number of bootstrapped samples and click **OK**.

JMP creates a data table (below, right) with statistics for the original sample (excluded) and each of the bootstrap samples. The **BootID•** column identifies the bootstrap sample number.

Big Class.jmp (Help > Sample Data Folder)



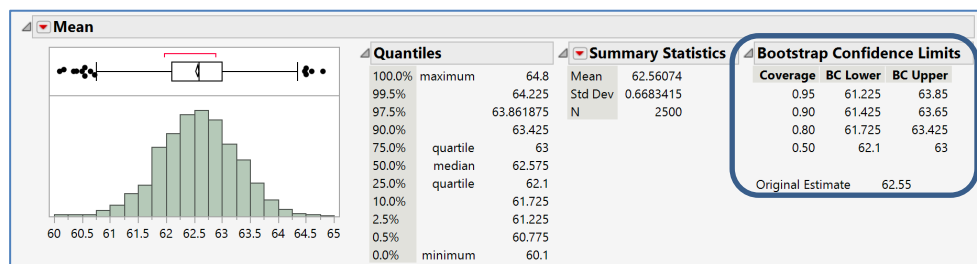
Distribution of height Bootstrap Results (Column 2) - JMP Pro

Table	Y	BootID•	Lower 95% Mean	Mean	N	Std Dev	Std Err Mean	Upper 95% Mean
1	Big Class height	0	61.19	62.55	40	4.24	0.67	63.91
2	Big Class height	1	61.42	62.675	40	3.92	0.62	63.93
3	Big Class height	2	62.04	63.3	40	3.95	0.62	64.56
4	Big Class height	3	61.75	63.125	40	4.29	0.68	64.50
5	Big Class height	4	60.99	62.4	40	4.41	0.70	63.81
6	Big Class height	5	61.15	62.675	40	4.77	0.75	64.20
7	Big Class height	6	60.25	61.7	40	4.53	0.72	63.15
8	Big Class height	7	61.44	62.55	40	3.48	0.55	63.66
9	Big Class height	8	61.77	63.025	40	3.93	0.62	64.28
10	Big Class height	9	61.42	62.75	40	4.17	0.66	64.08
11	Big Class height	10	61.50	62.825	40	4.14	0.65	64.15
12	Big Class height	11	60.78	62.25	40	4.61	0.73	63.72
13	Big Class height	12	60.52	61.95	40	4.48	0.71	63.38
14	Big Class height	13	61.20	62.55	40	4.21	0.67	63.90
15	Big Class height	14	62.12	63.275	40	3.61	0.57	64.43
16	Big Class height	15	60.52	61.875	40	4.23	0.67	63.23

3. Use the **Distribution** platform to explore the statistics of interest for the bootstrap samples. Bootstrap percentile confidence intervals for different confidence levels are provided.

Hint: Click on the green triangle next to **Distribution** in the top left panel of the Bootstrap Results data table to launch the Distribution platform for all bootstrapped estimates.

Note: The Summary Statistics table was customized (under the Red Triangle) to only display the Mean, Std Dev, and N.



Visit **Basic Analysis > Bootstrapping** in **JMP Help** to learn more.