To assess how well bootstrap sampling (500 samples of 150 observations each, with replacement) approximates the population statistics for BloodPressure, focusing on three key metrics:

* Mean
* Standard Deviation
* 98th Percentile

**Population Statistics (Based on full dataset of 768 observations):**

* Mean BloodPressure: approximately 69.11
* Standard Deviation: approximately 19.36
* 98th Percentile: approximately 99.32

**Bootstrap Statistics (Average from 500 bootstrap samples of 150 observations each):**

* Mean BloodPressure (Bootstrap Avg): approximately 69.18
* Standard Deviation (Bootstrap Avg): approximately 19.07
* 98th Percentile (Bootstrap Avg): approximately 97.90

**Findings and Interpretation:**

* Mean Comparison:

It appears that bootstrap sampling is highly successful at predicting the population average because the bootstrap average mean (69.08) is very close to the population mean (69.11).

* Comparison of Standard Deviations:

The population standard deviation (19.36) is somewhat higher than the bootstrap average standard deviation (19.07).

* 98th Percentile Comparison:

Good performance in predicting extreme values is demonstrated by the bootstrapped 98th percentile (97.90), which is near the population's 98th percentile (99.32).

**Conclusion:**

The bootstrap approach yields accurate population statistics estimates for blood pressure. Even with minor the findings show that bootstrap sampling is an effective strategy for statistical inference, particularly when dealing with huge datasets where analytical approaches might not be feasible.