

## DETERMINING THE NUMBER OF ASSETS TO REVIEW FOR SMALL POPULATIONS

As discussed in the Handbook Section, examiners are to systematically select assets for review from the population of assets. The initial sample sizes (of 29, 22, or 15) were selected based on an “in population size. Sampling chapters in statistical textbooks also contain a formula (“finite correction factor”) that can be used to “scale down” the level of assets that need to be reviewed, based on the number of assets in a population.

The formula is:

$$\text{sample size} = \frac{n}{1 + (n / \text{population size})}$$

Where “n” is the sample size selected based on an infinite population size, and “population size” is the actual number of assets in the group of assets being reviewed.

For example, if the initial sample size is 29, it can be “scaled down” as follows:

$$\text{sample size} = \frac{29}{1 + (29 / \text{population size})}$$

- If the population size is 1000, the sample = 28.
- If the population size is 500, the sample = 27.
- If the population size is 100, the sample = 22.
- If the population size is 50, the sample = 18.

As discussed in the Handbook Section, examiners are to systematically select assets for review from the population of assets. The initial sample size of 15 was selected based on an “in population size. Sampling chapters in statistical textbooks also contain a formula (“finite correction factor”) that can be used to “scale down” the level of assets that need to be reviewed, based on the number of assets in a population.

For example, if the initial sample size is 15, it can be “scaled down” as follows:

$$\text{sample size} = \frac{15}{1 + (15 / \text{population size})}$$

- If the population size is 100, the sample = 13.
- If the population size is 50, the sample = 12.