

# Introduction to weighting

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Weighting is a statistical technique that involves mathematically manipulating data after the fact (i.e., following data collection) to bring the demographics of the survey sample more in line with the demographics of a given population (e.g., the U.S. General Population).

*Users are strongly encouraged to weight CivicScience data, especially that which comes from syndicated questions.*

Weighting helps ensure that a given sample of respondents (i.e., a [segment](#)) is representative of the broader population to which you are trying to generalize results. Weighting is essential because if a segment is not representative of the target population, findings might not be generalizable beyond the specific sample of respondents from which the results were obtained.

Weighting works by assigning each respondent in the sample a value (called a weight) based on whether they belong to a demographic group that has been identified as either over- or under-represented in the sample. You can think of the survey weight as translating to the number of people in the larger population that each respondent in the sample represents. Respondents from under-represented groups are assigned weights greater than one, whereas respondents from over-represented groups are assigned weights less than one.

## Types

Within the InsightStore, there are three different types of weighting schemes.

### Simple and Discrete Weighting Schemes

Simple and discrete weighting schemes weight data by gender and age and are based on predefined age “buckets” and data from either the U.S. Census Bureau or a client.

### Complex Weighting Schemes

Complex weighting schemes weight data by additional demographic variables beyond age and gender, such as political affiliation or race.

### Autoweighting Schemes

Also known as *adaptive weighting schemes*, Atoweighting schemes work like simple and discrete weighting schemes but are more flexible. Unlike the types of weighting described above, in the case of autoweighting, target proportions are derived at runtime based on analyses of what the relevant age-gender ratios would be within a well-formed sample of the relevant Segment. In other words, autoweighting simulates a representative sample of the broader population using existing data and uses that to automatically calculate appropriate weights on the fly.

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