

Quarterly Retail Commodity Survey - Sampling

First phase: The MRTS sample consists of 10,000 groups of establishments (clusters) classified to the Retail Trade sector selected from the Statistics Canada Business Register. A cluster of establishments is defined as all establishments belonging to a statistical enterprise that are in the same trade group and geographical region. The MRTS uses a stratified design with simple random sample selection in each stratum. The stratification is done by sampling groups using the NAICS-three, four or five-digit level, depending on the subsector, and the geographical regions consisting of the provinces and territories, as well as three provincial sub-regions. We further stratify the population by size. The size measure is created using a combination of independent survey data and three administrative variables: the GBI, the GST sales, and the T2 revenue (from corporation tax return).

The size strata consist of one take-all (census), at most two take-some (partially sampled) strata, and one take-none (none sampled) stratum. Take-none strata serve to reduce respondent burden by excluding the smaller businesses from the surveyed population. These businesses should represent at most ten percent of total sales. Instead of sending questionnaires to these businesses, the estimates will be produced through the use of administrative data.

The sample was allocated optimally in order to reach target coefficients of variation at the national, provincial/territorial, industrial, and sampling group by province/territory levels. The sample was also inflated to compensate for dead, non-responding, and misclassified units.

MRTS is a repeated survey with maximization of monthly sample overlap. The sample is kept month after month and every month births are added to the sample and dead units are identified. MRTS births, i.e., new clusters of establishment(s), are identified every month via the BR's latest universe. They are stratified according to the same criteria as the initial population. A sample of these births is selected according to the sampling fraction of the stratum to which they belong and is added to the monthly sample. Deaths also occur on a monthly basis. A death can be a cluster of establishment(s) that have ceased their activities (out-of-business) or whose major activities are no longer in retail trade (out-of-scope). The status of these businesses is updated on the BR using administrative sources and survey feedback, including feedback from the MRTS. Methods to treat dead units and misclassified units are part of the sample and population update procedures.

Second Phase: The frame from which the QRCS sample is drawn is the set of clusters of establishments in the MRTS sample. As in the first phase, the sampling unit is the cluster of statistical establishments. There is no restratification of the MRTS sample. The take-all (census) strata in MRTS are also take-all in QRCS. Within each of the MRTS take-some (partially sampled) strata, a sample of the MRTS sampled clusters is selected to be in QRCS. The QRCS sample is determined through a multivariate allocation using the Bethel algorithm for nine major commodity groups. The QRCS sample consists of about 8,000 clusters of establishments. Similar to MRTS, the sample is updated each month to reflect changes in the population.

One NAICS-five digit industry that is subject to a different sampling treatment is the New Car Dealers industry (NAICS 444110). For this industry, approximately 20 manufacturers and importers of new cars are surveyed through the New Motor Vehicle Dealer Commodity Survey to collect information on behalf of their dealers.