**Five Common Types of Sampling Errors**

**Population Specification Error**—This error occurs when the researcher does not understand who they should survey. For example, imagine a survey about breakfast cereal consumption. Who to survey? It might be the entire family, the mother, or the children. The mother might make the purchase decision, but the children influence her choice.

**Sample Frame Error**—A frame error occurs when the wrong sub-population is used to select a sample. A classic frame error occurred in the 1936 presidential election between Roosevelt and Landon. The sample frame was from car registrations and telephone directories. In 1936, many Americans did not own cars or telephones, and those who did were largely Republicans. The results wrongly predicted a Republican victory.

**Selection Error**—This occurs when respondents self-select their participation in the study – only those that are interested respond. Selection error can be controlled by going extra lengths to get participation. A typical survey process includes initiating pre-survey contact requesting cooperation, actual surveying, and post-survey follow-up. If a response is not received, a second survey request follows, and perhaps interviews using alternate modes such as telephone or person-to-person.

**Non-Response**—Non-response errors occur when respondents are different than those who do not respond. This may occur because either the potential respondent was not contacted or they refused to respond. The extent of this non-response error can be checked through follow-up surveys using alternate modes.

**Sampling Errors**—These errors occur because of variation in the number or representativeness of the sample that responds. Sampling errors can be controlled by (1) careful sample designs, (2) large samples and (3) multiple contacts to assure representative response.