Convenience samples of establishments often lack a sampling based statistical theory of inference. On the other hand, there is often partial information on the distribution of covariates in a target population. But the covariates in the sample may have a considerably different distribution and there is doubt about the validity of inference. To close the gap between the population and the sample either one of two types of models may be used: i) the model explains the inclusion in the sample from the known covariates, ii) the model explains the interesting variables in the sample directly from the covariates in the sample. The first type of model leads to estimates of the propensity of a population element to be included in the sample. Estimators may then be based on the propensity scores and, if the model is good, approximately unbiased estimation of population characteristics is possible using the convenience sample. This is the established approach through calibration. The second type of model uses the covariates to establish a prediction model for a particular variable of interest. This is the prediction approach advocated first by Royall in the 1970s. Both models cannot be verified at the population level and the models may suffer from omitted variable bias. This is nothing new in classical statistics for infinite populations but the consequences for inference based on models in finite populations must be further investigated. Besides bias also variance is important and must be investigated. This paper is a contribution to the research on model based representativeness. It explores the role of balancing and the impact of imbalance on the mean square error of estimators.