

SM 625: Week 13 Sampling Project Notes

Here are the tasks that your team should be working on for this week. These tasks are all related to the development of your **estimation plan**; your overall sample design should essentially be in place at this point.

1. Based on the final sample design that your team has developed, formulate a **sampling error calculation model** that users of your data will be able to employ to estimate sampling variance. That is, what stratum codes will you provide to users? How will you form sampling error computation units (SECUs)? How many SECUs will there be per stratum? What are expected sample sizes per SECUs?
2. Describe the variance estimation procedures that one would employ to form a confidence interval for one of the three key descriptive parameters. This should build on your proposed SECUs from the first task. How many degrees of freedom will your sampling error calculation model afford? In addition, write the formula for one of the estimated proportions or means; are weights necessary in forming this estimator, given your sample design? That is, is your design *epsem*, or will weights be needed to compensate for unequal probabilities of selection?
3. Keep in mind the client's request for estimates and inference related to a 20% subclass. Will confidence intervals for the subclass be formed in the same way? Are your SECUs large enough to accommodate this request?