**SM 625: Week 11 Sampling Project Notes**

By now, you should have noted from the sampling frame that one approach for sorting the schools within a region is by grade level of the schools (middle, generally including grades 7 and 8, and high, generally including grades 9 through 12). We would want to reduce the chance of a random sample of schools within a region only including students from grades 7 and 8 by sorting our list in this fashion.

This week, you have been provided with the **actual** classroom rosters from a randomly sampled middle school according to your design (see the file "sample_school_student_list.xls" on Canvas). Suppose that the randomly sampled middle school was from Region 7, and the MOS for this school was 242. At this point, you have determined the m*_h needed from Region 7 to maintain epsem overall (see last week's project notes). Given the **actual** classroom rosters, what is the actual size of this school? Assuming that this school was not linked with any other schools, what is the sampling rate that you would apply to this school to achieve epsem? And what would your expected actual sample size be, once you apply this rate to the actual roster?

Given your plan for within-school sampling developed last week, describe your approach to selecting the sample at your specified rate, and then implement that technique to actually select the sample. You can provide the resulting sample as an Appendix for your final project, but the selection technique needs to be clearly described in the body of your report. Ultimately, your description of this process should enable readers to understand what would happen to select the sample of students within each sampled school.