**NASP Inventory/Monitoring and Decision Support (IMDS) – Statistics Pre-work**

Oregon State University, Corvallis

Please read “A Statistics Primer for Foresters” by S. Stafford (from the *Journal of Forestry*) and Chapter 1 of “*Statistics as Principled Argument*” by R. Abelson (both on the IMDS website) before you begin the pre-work exercise below.

This pre-work exercise is designed to get you thinking about the purpose of statistical description and analysis. You are not required to conduct any statistical hypothesis tests for this exercise, but you may wish to compute some summary statistics. *This exercise is due on Monday September 16th at the start of class*. You might find it helpful to bring 2 copies to class – one to turn in and one to keep as a reference during and after the session. I will grade them based on the quality of your description of the 3 plots and the 2 types of trees.

The data in the associated Excel spreadsheet are the diameters (DBH in inches) of 195 trees located on 3 different plots. Each tree may be alive or dead (indicated by the ‘status’ column). Two of the plots covered 1 acre each (each tree record represents 1 tree/acre) and the other covered 1/5 of an acre (each tree represents 5 trees/acre). All the trees in each plot were measured and recorded in the EXCEL spreadsheet. Each plot is located in a different forest stand. Assume that the measured plot trees are representative of all the trees in the area.

You may use any tools you wish – computer/software, paper/pencil etc. to complete the assignment. This is not meant as an exercise in learning new software; feel free to do follow simple procedures that are most comfortable for you.

**Assignment:**

1. Examine (analyze) the data and compute any summary statistics that might be helpful in the requested descriptions.
   1. Write a paragraph in which you describe the distribution of diameters of live trees and the distribution of diameters of dead trees in plot 2. Also describe any similarities or differences between the plots. Please use simple language that co-workers (e.g., marking crew) or supervisor (e.g., District Ranger) would understand.
   2. Next, write a paragraph that describes your best guess about the structure of the stand that surrounds each plot, assuming the plots are representative of the surrounding stand.
2. In a short paragraph summarize your past experience with statistics both on the job and in your formal education. Include any courses on statistics that you have taken, list the software you use now or have used in the past to analyze or describe “data”. This information will help us understand the range of experience in the class.