

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

Oregon State University, Corvallis

Please read both “**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 will need to compute some basic summary statistics just to get started. This exercise is due by Monday at the start of class into the GoogleDocs folder; you might find it helpful to have it available during that first session. I will grade them based on the quality of your description and thoroughness – but the numbers are just made up so think widely!

The data in the associated Excel spreadsheet are the diameters (DBH in inches) of 40 trees located on 3 different plots that are representative of all the trees in that area. Each tree may be alive or dead (‘status’ column). The first two plots were 1/10th acre each (each tree record represents 10 tree/acre) and the third covered a 1/5th acre (where each tree represents 5 trees/acre). All trees in each plot are recorded; each plot is located in the same designated stand.

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

Assignment:

1. Examine (analyze) the data and compute any summary statistics for the plots and stand that might be helpful in your descriptions.
 - a. Write a paragraph in which you describe the diameter distribution of live trees and the of dead trees, and a summary of trees/ac and basal area/ac for the stand. Also describe any similarities or differences between those plots. Please use simple language that co-workers (e.g., marking crew) or supervisor (e.g., District Ranger) would understand.
 - b. Next, write a paragraph that describes your best guess about the structure/nature of the stand containing the plots, assuming plots are representative of the stand.
2. In a short paragraph or with bullets, 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 me understand the range of experience in the class.