Practical Stats Newsletter for March 2020

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A. Practical Stats Courses On our online training site: <u>http://practicalstats.teachable.com/</u>

Our Nondetects And Data Analysis (NADA) course is available online. It's a complete coverage of data analysis with nondetects and 'remarked data': summary statistics, regression, group testing, and even some multivariate methods, all without substituting fabricated numbers like ½ the detection limit. One year's access to the materials costs \$695. The R scripts included provide new functionality to make data analysis easier, and are a step forward from the NADA package in R.

Our Applied Environmental Statistics courses cover methods from simple statistics through trend analysis. They are also an introduction to using R software, the most widely used statistics software in the world. They are available in two parts, each \$650 USD for a 1-year access for one person. Or get both courses together in a bundle for \$1200 USD. See our online training site at the link above.

B. Our March Webinar Our upcoming webinar is "Incorporating Greater Than and Less Than Values in Data Analysis".

Incorporating Greater Than and Less Than Values in Data Analysis a Practical Stats webinar Tuesday March 17, 2020 11:00 AM MST Register at: <u>https://attendee.gotowebinar.com/register/8844957922221105163</u> or view it later on our Videos page, <u>http://www.practicalstats.com/videos/</u>.

One way of representing censored data in a database is the "interval endpoints" format. Two columns are used for each observation, with the first being the low end of possible values for the variable (often 0 for censored chemical data) and the second column holding the highest possible values (the detection or quantitation limits). One benefit of storing data this way is that it allows 'greater thans' to also be stored in the same two columns. Censored methods for data analysis can incorporate both 'less thans' and 'greater thans' simultaneously as interval-censored data and

compute everything from means to hypothesis tests and regression. This webinar will give you examples of how to do these types of analyses.

You'll find more information on the topic in our Nov 2015 newsletter on "Double Censoring" that is posted in our Newsletter Archive. Interval censoring methods are the main thrust of my work this year. If you have software that allows for interval-censored data as inputs, you may input censored data at both ends of the distribution, as well as data where zero is not the lower bound of the value. An example of the latter are values that are between the method detection limit and the quantitation limit ("between 3 and 6" rather than just <6). This topic will be a major addition the third edition of my book "Statistics for Censored Environmental Data using R" (3<sup>rd</sup> edition title) and will be a new course to come on our Training Site.

If you can't make the live webinar on March 17<sup>th</sup>, you'll be able to go to our Videos page, <u>http://www.practicalstats.com/videos/</u> and see it at your convenience there.

C. The Only Thing That is Constant is Change

Our March video will likely be the last live webinar I do this year. After that, I'll record each video and post it on our new Videos page on practicalstats.com. Videos there are freely available for viewing at any date and time convenient for you. Availability of each new webinar will be announced through this newsletter as well as listed on our Webinars page at practicalstats.com. Videos directly related to our online courses will also be posted on our Online Training Center.

'Til next time,

Dennis Helsel Practical Stats LLC -- Make sense of your data