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A question was raised in class as to the distinction between QUALITATIVE and QUANTITATIVE data or variables.

Qualitative variables are often referred to as "categorical variables" since they are variables that can take only a few distinct values (e.g., sex, race, blood group, political party membership, rank in graduating class, etc.). Nominal and Ordinal data(or variables) fit this definition.

Quantitative variables(or data), on the other hand, are variables whose values are numbers with real numeric meaning. Interval and ratio variables(or data) fit this definition.

Another take on this would be to say that a quantitative variable is one that takes numerical values for which arithmetic makes sense, for example, grades, temperatures, weights, amounts of money, etc.[interval and ratio data fit this description]. For some variables that take numerical values, arithmetic with those values does not make sense; such variables are not quantitative[nominal or ordinal data fit this description]. For example, adding and subtracting social security numbers, area codes or telephone numbers does not make sense. Quantitative variables typically have units of measurement, such as inches, SAT scores, temperature, reaction time, or pounds.

There are statistics that can use qualitative data effectively, however, and we will look at several examples of those this semester.

I hope this amplification helps.

P.S. One of the class members asked if I still go to my usual residence for the mid-year Christmas break, namely, Tortola, in the British Virgin Islands. I do, and if you would like to take a look at where I go each year and warm up a bit you can see a few panorama photos by me here(just click or cut and paste the link into your browser): <http://inside.salve.edu/~walsh/g3-shots/html/tortolapanoramas/index.htm> I stay on the beach called Long Bay, the one with the mountain at the end in the distance.

aaw

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