October 29, 2014

Data & Interpretation: A recurring theme in my daily work, and also in my messages to you, is the necessity of data for interpreting trends and making decisions. Accurate and well-understood data is as likely to produce good decisions as inaccurate or poorly understood data is to produce blanders and miscalculation. Knowing the difference requires a habit of skepticism and caution. Thomas C. Redman, the author of a recent Harvard Business Review post, offers valuable advice, urging managers to “dig into the data and develop a deeper understanding of the hidden insights that lie within.”

A healthy skepticism is aided by learning to recognize or guard against errors, such as Simpson’s paradox (also known as the Yule-Simpson effect, or the reversal or amalgamation paradox), in which “a trend that appears in different groups of data disappears when these groups are combined.” Two famous cases of Simpson’s paradox — one related to treatment of kidney stones, the other to accusations of gender bias at U.C. Berkeley — can be found in the same entry. Simpson’s paradox also manifests in correlations “in which two variables appear to have (say) a positive correlation towards one another, when in fact they have a negative correlation, the reversal having been brought about by a ‘lurking’ confounder.”

There is an example in economics in which “a dataset suggests overall demand is positively correlated with price (that is, higher prices lead to more demand), in contradiction of expectation. Analysis reveals time to be the confounding variable: plotting both price and demand against time reveals the expected negative correlation over various periods, which then reverses to become positive if the influence of time is ignored by simply plotting demand against price.” The moral of the story is that while data is always crucial, so too is the story behind the data.

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GO Bond C: When you head to the polls on Nov. 4, remember to vote on General Education (GO) Bond C. Bond C, which requires no commitment in the form of new taxes to the citizens of New Mexico, includes provisions for the branch campuses and Farris Engineering building.

United Way: Please consider supporting the United Way of Central New Mexico, with whom UNM has partnered for nearly two decades. Every donation, no matter the size, helps someone in our community. Please consider donating today.

Food for Thought: If the spirit of giving coincides with your lunch break, look for the Food for Thought food trucks on Cornell Mall (outside the Student Union Building) on Thursday, Oct. 30 from 11 a.m. - 2 p.m. Ten percent of profits from food truck sales will go to the Graduate and Professional Student Association (GPSA) Summer Graduate Scholarship.

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