Statistical Literacy is too Important to Allow Gatekeeping

By Nate Bowling, March 10, 2021

Excerpts:

I believe every student should get a solid, meaningful footing in mathematics, especially statistics and be prepared to go to a university if they choose to. The future is going to be more data rich than our already complex present. Students who lack statistical literacy will be at a disadvantage in future adulthood and professional endeavors.

The pandemic and the recent election in the US have shown us all there is a desperate need for statistical literacy. If you want more evidence, open a browser or the Twitter app and search the phrase “I trust my immune system,” then take a long, deep breath as you read. Seriously, nowhere is the lack of statistical literacy in the US more readily on display than on social media and especially when it comes to the topic of vaccines. This has long-term implications for our country.

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Comment: Milo Schield, March 11, 2021.

I agree that "there is a definite need for statistical literacy" and "Students who lack statistical literacy will be at a disadvantage in future adulthood and professional endeavors." But does the current AP Statistics course satisfies that need? AP statistics focuses on randomness. Randomness is seldom the most important issue in dealing with everyday statistics.

Confounding -- what was or was not taken into account -- is arguably a much bigger issue (along with how things are defined, counted and measured). Why does the best hospital in a region typically have the highest patient death rate? The sickest patients go to the best hospital. Why does Mexico have a much lower death rate than the US? Mexico has a much younger population than the US. Why are those who read home and fashion magazines much more likely to get pregnant than those who read car and sport magazines? Men are more likely to read car and sport magazines. How can SAT scores be unchanged over 10 years but the scores of every racial and ethnic group improve? High-scoring whites became a smaller fraction of those taking the SAT.

Students should be able to choose between a traditional statistics course and a confounder based statistical literacy course. For more on statistical literacy, see "Quantitative Literacy & School Mathematics: Percentages & Fractions" at www.statlit.org/pdf/2008-Schield-QL.pdf

https://www.statsmedic.com/post/statistical-literacy-is-too-important-to-allow-gatekeeping

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Hi Lindsey and Luke,
Consider supporting statistical literacy as an alternative to AP statistics for those college-bound students interested in non-quantitative majors: English, History, Political Science, Philosophy, Art, Music, etc.
Milo

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