Are Universities Adequately Preparing Students for Our Data-Driven World?

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There is widespread agreement that students studying statistics should graduate from college with data acumen, however, due to workforce demands and changing societal needs, all students, regardless of major, need to have the opportunity to gain some level of data acumen in their college career. As universities aim to better prepare their students for data-related workforce demands, it is not clear whether students on college campuses have access to adequate preparation in statistics and data analysis. In this talk, using data from a mid-size university, we show that alarmingly low percentages of students are meeting even the most basic level of data literacy requirements. Moreover, while many course pathways exist to achieve different levels of data literacy, university structures (e.g., prerequisite requirements) hinder access thus leaving certain majors and specific demographics at a disadvantage for graduating with data acumen.

Dr. Anna Bargagliotti received her Ph.D. and her Masters degree in 2007 in mathematics and statistics, respectively. Her research focuses on mathematics and statistics education, data visualization, and nonparametric statistical methods. Her work has appeared in top-tier journals such as *Journal for Research Effectiveness*, *Teachers College Record*, *Statistics Education Research Journal*, and *Journal for Statistics Education*. Dr. Bargagliotti is a co-author on the *Statistics Education of Teachers* (SET) report commissioned by the ASA, a current lead author on the ASA’s update of the *Guidelines for Assessment In Statistics Education* (GAISE II) report and an author of a book entitled *Statistics and Data Analysis for Teachers* due out in 2020. She has received over 3 million dollars in funding as a PI or Co-PI. Currently, she is funded to research the commonalities and differences in statistics/data related course offerings across university departments as well as to understand whether universities are adequately preparing their students in statistics and data analysis.

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