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Committee on Fellows American Statistical Association

I'm writing to support enthusiastically the nomination of Dr. Milo Schield for ASA Fellow.

I've known Dr. Schield for about 15 years. When we met, I was undertaking a revision of the component of Macalester's general education requirement that has since become known as the "Quantitative Reasoning" requirement. Macalester is a liberal arts college with a strong emphasis on civic engagement. For many years it had a requirement stated in terms of mathematics, computer science, and logic courses. These failed to engage areas that are important in understanding public policy and decision making. Investigating the possibilities for effective curricula, I quickly encountered Dr. Schield's work.

Dr. Schield had been (and continues to be) working to encourage statistics educators to embrace what is sometimes called "statistical literacy." One ongoing manifestation of this is the website, www.statlit.org, created by Dr. Schield in 2003 and continuing to this day to be the go-to reference for a large diversity of views and approaches to statistical literacy. Dr. Schield is a tireless worker, not just in terms of his books and papers (75 statistical literacy papers in the 20 years he has been working in the area), but in outreach through regional, national, and international conference presentations.

There are many components to statistical literacy. Dr. Schield's publication list comprehensively covers them, introducing pedagogical techniques, examples, and creative conceptual illustrations. I'd like to focus on just one area where Dr. Schield's influence work and outreach have been strongly impactful: confounding and multi-variable thinking. Looking back at stats textbooks at the turn of the century, one sees a nihilistic approach to serious thinking about causal relationships: "no causation without experimentation", "lurking" variables, no mention of covariates, no introduction of statistical techniques to take potential confounders into account. Simpson's paradox was introduced, but only to scare students from drawing conclusions, instead of to better inform the process of drawing responsible conclusions.

For many years, Dr. Schield's voice was pretty much the only one out there conveying the message that understanding and dealing with confounding needs to be core to the introductory curriculum. But, over the years, his patient and consistent advocacy and his articulate and scholarly presentation kept the issue on the table. One sign of his cumulative effect is the appearance of a new emphasis in the 2016 ASA GAISE recommendations: "Give students experience with multivariable thinking." Dr. Schield did not write the GAISE report, but he set the stage, motivated, and inspired the actors. For his important role in the evolution of statistics education, Dr. Schield's has earned and warrants the honor of being designated an ASA Fellow.

Sincerely,

T. Kaff

Daniel Kaplan