

2018: Dr. Milo Schield selected as a Fellow by the American Statistical Association



Award presented by Lisa LaVange, ASA President

This honor is limited to 0.3% of the membership (roughly 60 out of 18,000) per year. The citation states:
"The American Statistical Association (founded in 1839) awards the Honorary Rank of Fellow to Milo Schield, Augsburg University, for leadership in, and service to, the field of statistics education; for outstanding contribution to increase statistical literacy among consumers and decision makers in the wider society; and for tireless efforts in promoting quantitative literacy internationally."
Signed by Paul Gallo, Committee Chair, July 31, 2018

Milo's academic contributions to statistical education (as of August, 2018) include:

- 78 papers which have received over 670 citations; 72% of his papers have at least one citation.
- 38 talks outside the United States in 18 countries on six continents (all except Antarctica)
- Managing the www.StatLit.org website: Google rated as the #1 website dedicated to statistical literacy with over 280,000 views and 380,000 downloads in 2017
- His articles have been published by the American Association of Colleges and Universities (AAC&U), the Mathematical Association of America (MAA), the International Association of Statistical Educators (IASE), the International Association of Official Statistics, and the American Statistical Association (ASA)
- Organized 16 sessions on statistical literacy at the annual meetings of the ASA

Milo's administrative contributions to statistical education include:

- US Representative of the International Statistical Literacy Project (ISLP)
- Vice President of the National Numeracy Network (NNN)
- Head of the local chapter of the American Statistical Association.

Milo's other honors include:

- Elected as a member of the International Statistical Institute (ISI) in 2011
- Project manager on a \$500,000 grant from the W. M. Keck Foundation in 2001 to "to support the development of statistical literacy as an interdisciplinary curriculum in the liberal arts"
- Selected by Wiley Publishing to produce a textbook: *Statistical Literacy for Decision Makers*

Dr. Schield received his Bachelor's degree in Physics from Iowa State University, his Master's in Physics from the University of Illinois and his PhD in Space Physics from Rice University.

He is a full professor in the Department of Business Administration working in the Management Information Systems area. He was selected to teach critical thinking for 10 years. That background greatly influenced his vision of statistical literacy as the study of arguments involving statistics as evidence.

He developed and teaches "Statistical Literacy for students in non-quantitative majors" in General Studies and "Statistical Literacy for Decision Makers" in the department of business administration: the first such catalog courses in the world.

Milo's focus on statistical literacy (evaluating the role of statistics in arguments) was clearly presented in his 2004 paper: *Statistical Literacy and Liberal Education* at Augsburg College, published by the AAC&U in their *Peer Review* magazine.

According to Google Scholar, Milo's papers are being read

- 2006 JSM: Percentage Graphs in USA Today. 100,000 downloads
- 2006 STATS magazine: "Beware the Lurking Variable". 18,000 downloads
- 2011 SJAOS: Statistical Literacy: New Mission for Data Producers". 10,000 downloads
- 2014 Create a log-normal distribution given mean and median values. 37,000 downloads.
- 2014 Generating a logistic regression using Excel OLS. 8,000 downloads.

Nomination and Endorsements for Milo's recognition as an ASA Fellow:

Carl Lee (Nominator), Professor at Central Michigan University. Throughout his career, Milo has made significant contributions to the statistics profession through his dedication and hard work in promoting statistical literacy.

Danny Kaplan, Professor at Macalester College. I'm writing to support enthusiastically the nomination of Dr. Milo Schield for ASA Fellow. 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.

Jeff Witmer, ASA Fellow and Professor at Oberlin College, Ohio: I write to endorse Carl Lee's nomination of Milo Schield to be an ASA Fellow. I was surprised to find that Milo is not already a Fellow, given how much he has done for so many years. ... In particular, I credit Milo with changing how I think about causal inference and observational data. It has become something of a mantra among statistics educators to say "It is impossible to say anything about cause-and-effect from observational data." But that is not true. Milo has been pushing educators to think more broadly and to help their students understand how to think about causal relationships within observational data. It isn't easy to teach undergraduates about covariance, minimum effect size, and the like, but rather than back down from these challenges Milo finds a way to forge ahead. His work influences the rest of us.

Chris Wild, ASA Fellow and Professor of Statistics, U. of Auckland, NZ. "I have known Milo Schield for over 15 years through activities of the International Association for Statistical Education and the ASA's Section on Statistical Education. I am very pleased to support the nomination of Milo as a Fellow of the American Statistical Association for his leadership in, and service to, the field of statistics education over a very career of more than 30 years. Promoting and increasing statistical literacy and capability, especially amongst decision leaders in the wider society, is statistics' single most important "missionary" activity. Milo has been our most indefatigable worker for the cause of statistical literacy for many years. He began writing on and promoting statistical literacy in about 1998. From his background in the business world and teaching in a business school Milo knew that there were important topics that had long been deemed "too complicated for introductory statistics" are absolutely critical to get into the brains of decision makers and, moreover, introductory statistics is the best vehicle we have for spreading critical messages widely. Making key ideas and thinking modes accessible at low levels is absolutely critical to this endeavour and Milo has been an important leader in that regard. Most important to Milo were messages around causal reasoning and confounding that extend much beyond the traditional bromide that "correlation is not causation". These are areas that introductory statistical education is even now only beginning to engage seriously with."

Herb Weisberg, ASA Fellow and President, Causalytics LLC: It is a pleasure for me to support the ASA Fellow nomination of Milo Schield. I met Milo six years ago as a participant in an ASA invited session he had organized for authors of recent statistical books. After the session, we talked at some length about his efforts to promote statistical literacy, and the StatLit.org website in particular. I was greatly impressed by his obvious passion and effort devoted to the ideal of promoting clear quantitative thinking and analysis in our society.

John Bailer, ASA Fellow and Professor at Miami University: It is my pleasure to recommend Dr. Milo Schield for recognition as a Fellow of the American Statistical Association. [He] has provided national and international leadership in promoting statistical literacy and numeracy. [He] is a leader in promoting statistical literacy and an educator whose contributions merit recognition as a Fellow of the American Statistical Association.

In applying for the 2015 "Teaching Statistics Outstanding Achievement Award", Milo received endorsements from two prior Presidents of the Mathematical Association of America and from a prior President of the American Statistical Association.