

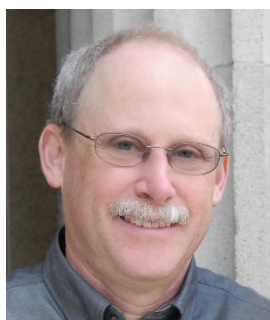


UNIVERSITY SYSTEM
of MARYLAND

STATS 2020
*Revisioning Introductory Statistics for a
New Generation*

November 22, 2019 | Maritime Conference Center

FEATURED SPEAKERS



Daniel Kaplan, DeWitt Wallace Professor of Mathematics & Computer Science, Macalester College

Danny Kaplan was trained in physics, economics, and biomedical engineering but his work of the past 20 years has been developing math and statistics curricula that properly engage modern curriculum. He's the author of textbooks in statistics, computer science, and data science. In 2017, his work was recognized with the Lifetime Achievement Award in Teaching Statistics sponsored by the Consortium for the Advancement of Undergraduate Statistics Education (CAUSE).



Deborah Rumsey, Associated Professor & Program Specialist Faculty, The Ohio State University

Deborah Rumsey has a PhD in Statistics from The Ohio State University and a master's degree in Mathematics from Illinois State University. She is an Associated Professor of Statistics at The Ohio State University. Deborah specializes in the area of statistics education, giving many talks and writing papers in this area. She has written the book *Statistics for Dummies*, as well as four other books in the *Dummies* series relating to statistics. She is also the designer and first program chair of the United States Conference on Teaching Statistics (USCOTS), which brings 400 teachers of undergraduate statistics together every other year to learn and share about teaching statistics. She is a founding member of the Consortium for the Advancement of Undergraduate Statistics Education (CAUSE), and an Associate Editor of the *Journal of Statistics Education*. Deborah is a Fellow of the American Statistical Association.

PROGRAM

8:15 a.m. – 8:45 a.m. **Registration and Light Breakfast** | Central Break Area

8:45 a.m.– 9:00 a.m. **Welcome and Opening Remarks** | Auditorium
Nancy Shapiro, Associate Vice Chancellor for Education and Outreach and Special Assistant to the Chancellor for P-20 Education, University System of Maryland

Remodeling the M in STEM | Auditorium
Daniel Kaplan, DeWitt Wallace Professor of Mathematics & Computer Science, Macalester College
If we were inventing the acronym STEM today, we might be tempted to put a D in it: Data. Some argue that the M, for mathematics, covers data implicitly, but M has not kept up with the times. Remodeling math and, in particular, approaching math from the perspective of extracting information from data, is a huge opportunity to engage students in STEM and, if it's done right, to bring success to students who struggle, and often fail, to stay afloat in the current curriculum.

10:00 a.m. – 10:10 a.m. **Break** | Central Break Area

Applying the Guidelines for Assessment and Instruction in Statistics Education (GAISE) Standards in Practice | Classroom 3
Felice Shore, Professor & Assistant Chair, Department of Mathematics, Towson University
The GAISE report is one of the drivers of statistics education reform. Get an overview of GAISE and experience a classroom activity that puts some of the recommendations into practice.

The Future of Intro Stat: More Accessible, More Effective, More Relevant, More Fun! | A100
10:10 a.m. - 11:00 a.m. *Kari Lock Morgan*, Assistant Professor, Statistics, Pennsylvania State University
Learn how to make introductory statistics more accessible (fewer prerequisites!), more effective, more relevant, and more fun with technology, simulation, and data visualization techniques.

High School to College Mathematics Pathways: Preparing Students for the Future | A303
Debra Ward, Coordinator of Mathematics, *Nina Riggs*, Secondary Mathematics Specialist, and *Michael Turlik*, Mathematics Assessment Specialist, all of Maryland State Department of Education
Learn about Maryland's participation in a multi-state effort directed at bridging the gaps between high school and college mathematics.

11:00 a.m. – 11:10 a.m. **Break**

PROGRAM

Statistics for All in this Data-Driven Age | Auditorium

11:10 a.m. – 12:10 p.m.

*Deborah Rumsey, Associated Professor & Program Specialist Faculty,
The Ohio State University*

No matter what their major interest, or career path, today's students will be involved in statistics at some level, both in their careers and their everyday lives. In this talk we discuss the three major ways students will be involved in statistics in this data-driven age, as well as statistical skills that are needed to not only survive, but thrive as future innovators, decision makers and leaders.

12:10 p.m. – 1:00 p.m. **Lunch** | Main Dining Room

Teaching Data-Centric Stats | Classroom 3

Daniel Kaplan, DeWitt Wallace Professor of Mathematics & Computer Science, Macalester College

Common sense says that data should be at the center of statistics, but often it's only peripheral to the way statistics is taught. I'll show how the interactive display of data reveals statistical topics that are often obscured by algebra.

Innovations in Developmental and Corequisite Pathways | A100

Robyn Toman, Professor of Mathematics, Anne Arundel Community College

1:00 p.m. – 1:50 p.m.

Learn about how community colleges and universities in Maryland are innovating with developmental education and corequisite mathematics pathways in statistics.

Concurrent Sessions

Infusing Quantitative Reasoning Skills Across the Disciplines | A303

Jennifer Haydel, Professor of Political Science and Co-Coordinator of the Quantitative Reasoning in the Disciplines Program and Diane McDaniel, Assistant Professor of Natural Science and Co-Coordinator of the Quantitative Reasoning in the Disciplines Program, both of Montgomery College

Learn about Montgomery College's Quantitative Reasoning in the Disciplines effort to support faculty in all disciplines to develop innovative pedagogical techniques that enable students to identify, navigate, and apply quantitative information in their personal, professional, and academic lives.

1:50 p.m. – 2:00 p.m. **Break** | Central Break Area

PROGRAM

Implementing the Charge of Statistics for All | Classroom 3

Deborah Rumsey, Associated Professor & Program Specialist Faculty,
The Ohio State University

It's one thing to determine what statistical skills that are needed in order to survive and thrive out there in today's world, it's another thing to figure out how to develop these skills in today's students, given their diverse backgrounds and experiences. In this session we address ways to build the necessary statistical skills in today's students, through group discussion, information sharing, and question/answer.

Active Learning and Student Engagement in the Statistics Classroom | A100

2:00 p.m. – 2:50 p.m.
Concurrent Sessions

Jessica Adams, Assistant Professor Mathematics, *Michele Catterton*, Assistant Professor Mathematics, and *Dr. Carol Mueller*, Assistant Professor Mathematics & Earth Science, all of Harford Community College

Active learning strategies help to initiate learners and instructors into effective ways to engage students. We will be exploring multiple active learning strategies that may be used in the statistics classroom.

Evaluating Course Materials, Platforms and Tools for Introductory Statistics | A303

Brian Kotz, Professor of Mathematics and Statistics at Montgomery College

This open discussion will address the evaluation of course materials, platforms, computational tools/packages, and new technologies for use in introductory statistics. Hear from participants about the types of tools and materials being used across Maryland.

2:50 p.m. – 3:00 p.m. **Break**

Closing Session | Auditorium

3:00 p.m. – 3:30 p.m.

Nancy Shapiro, Associate Vice Chancellor for Education and Outreach and Special Assistant to the Chancellor for P-20 Education, University System of Maryland

The University System of Maryland would like to thank the planning committee for their contributions in framing the program structure and content.

PLANNING COMMITTEE

Nancy Shapiro (Chair), Associate Vice Chancellor for Education and Outreach and Special Assistant to the Chancellor for P-20 Education, University System of Maryland
Min A, Assistant Professor, Mathematics, Coppin State University
Karen Feagin, Graduate Assistant, University System of Maryland
Fiona Glade, Assistant Provost for Undergraduate Studies, University of Baltimore
John Hamman, Interim Chief Analytics and Effectiveness Officer, Montgomery College
Stephanie McCaslin, Professor and Chair, Department of Mathematics, College of Southern Maryland
DeWayne Morgan, P-20 Program Director and Evaluator Teacher Education Initiatives, University System of Maryland
Felice Shore, Professor & Assistant Chair, Department of Mathematics, Towson University
Robyn Toman, Professor, Mathematics, Anne Arundel Community College
<i>The Planning Committee also wishes to thank edBridge Partners, LLC, for their help with this event.</i>

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