StatPREP FEBRUARY 2022 Newsletter

JOIN US FOR OUR STATPREP WORKSHOP

Application deadline extended!



Apply for our in-person workshop in Fort Myers, Florida, by <u>March 7th</u>. This workshop will be held on May 20-21, 2022.

Workshops are open to anyone teaching post-secondary introductory statistics during the 2022-2023 academic year. The workshop is <u>free</u>, and all materials and meals during the workshop are provided. There is an up-to \$100 stipend available to help cover travel expenses for workshop participants.

See you there!

REGISTER





UPCOMING ACTIVITIES Be sure the check out our upcoming webinar and workshop plans on page 5.











ISSUE #27

STATISTICS AND AFRICAN AMERICAN HISTORY

by Ambika Silva



Black History Month is a time to celebrate the heritage and achievements of African Americans. American historian Carter G. Woodson established Black History Week (which was first called "Negro History Week") nearly a century ago to celebrate the

contributions to our nation made by people of African descent. In celebration of Black History Month, I wanted to recognize a few individuals from the black/African-American community who have made tremendous contributions to the field of statistics and provide a few statistics as well.



<u>David Blackwell</u> was a statistician and teacher whose influence on game, probability, and information theory is still being taught today. He chaired the Department of Statistics at UC Berkeley, one of the world's top centers for mathematical statistics, where he was the first tenured African American professor. He was also the first African American inducted into the National Academy of Sciences. Blackwell wrote one of the first Bayesian textbooks and by the time he retired, he had published over 90 books and papers on dynamic programming, game theory, and mathematical statistics.

Recently named a Fellow of the American Statistical Association in 2021, <u>Melody S. Goodman</u> is an American biostatistician whose interests include social determinants of health. Goodman is an advocate for public outreach and engagement on health issues and her work strives for the development of solutions for improving health in minority and medically underserved communities. At this time, she is an associate professor of biostatistics and associate dean for research in the New York University School of Global Public Health.





Did you know?

There were approximately 46.9 million Black or African American alone or in combination population in the United States in 2020. Source: <u>2020 Census Redistricting: Supplementary Tables</u>











Recent Black High School Attainment On Par With National Average

Educational Attainment of Black and Total Populations by Age: 2020 $(\mbox{In percent})$



According to the CPS Historical Time Series Tables, 89.4% of African Americans age 25 and older had received a high school diploma or higher in 2020.

Source: CPS Historical Time Series Tables

In 2019, 30.7% of the employed aged 16 and older Black population was working in one of the following occupations: management, business, science, and arts. Source: <u>Census - Table Results</u>

AND THE AWARD GOES TO... By Donna LaLonde

I am a long-time reader of the NY Times. Although during the week I read the digital version, I still very much enjoy the Sunday paper. I have a reading order for the sections, and the penultimate section for me is Arts and Leisure. This is awards season, so I've been reading about a lot of "bests." I want to share some of my nominations that I know will not be considered by the Academy, but they should be!

I'll start with the Best Original Screenplay category. The clear favorite is the <u>Guidelines for Assessment and</u> <u>Instruction in Statistics (GAISE) College Report</u>. The 9 recommendations for what a student should know and be able to do at the end of the first course in statistics, represent the best of statistics education research. However, the document also merits a "best" because of the rich resources provided in the appendices. For example, Appendix C: Activities, Projects, and Datasets highlights the essential characteristics for success classroom activities and projects and provides sources for datasets.

In the Best Visual Effects category, I would nominate Nathan Yau and his <u>Flowing Data</u>. In his blog, Nathan shares his work as well as highlighting the work of others. He also has developed visualization guides with his advice for working with data. For example, his "Ask the Question, Visualize the Answer" walks through how asking and answering questions can help you develop better visualizations.











I nominate the webinars presented by the <u>International Association for Statistics Education</u> in the Best International Feature Film category. Registration is free and the recordings are available. The topics range from examples of best practices to more general discussions of statistics education issues. For example, the November 2021 webinar was <u>"Using simulations to make sense of the world: the pandemic"</u>, and the December 2021 webinar was <u>"Statistical literacy demands are evolving — How do we cope with the challenge?"</u>. Coming up in March 2022 is the webinar - "What every (numeracy) educator working with (young) adults should know about Civic Statistics, and why."

In the Best Documentary Feature category, my recommendation is the <u>Stats+Stories podcast</u>. The hosts of the podcast are John Bailer who is chair of the department of statistics. at Miami University and Rosemary Pennington who is an associate professor of journalism at Miami and a former journalist with experience in print and broadcast. Together John and Rosemary explore a variety of topics with their guests. Recent episodes have included conversations about probability and gambling games and how advancing technologies like the metaverse will influence the data economy.

The final category is Best Original Song. This nomination goes to former ASA board members Dick DeVeaux who is chair of the department of mathematics and statistics at Williams College and Mark Glickman who is a senior lecturer in the department of statistics at Harvard University. They performed <u>this song</u> because we were not able to meet in person for JSM 2020. It is a winner!

I'll look forward to reading about your nominations in the StatPrep online community. Please share!



Upcoming Webinar

THREE WAYS TO (RE)INVIGORATE YOUR TEACHING OF LINEAR REGRESSION





Wednesday, March 2nd 5:30-6:30pm ET

Presented by Helen Burn

Learn three ways to invigorate or reinvigorate your teaching of linear regression in our upcoming webinar facilitated by Dr. Helen Burn from Highline College. The webinar is relevant whether you are still formulating your approach to teaching linear regression or if you wish to give new strength or energy to your current approach. The session will be interactive and activity-based, leveraging the StatPREP Little Apps to demonstrate and apply ideas. However, the ideas shared and discussed in the webinar can be immediately applied to your statistics class whether or not your students have access to technology. Three ways to (re)invigorate your teaching of linear regression shared in the webinar are:

- 1. Focus on the response variable and the guiding question: What predicts the explanatory variable?
- 2. Increase students' capacity to assess the suitability of a linear model through exploring and examining sample variability, model strength, and slope as effect size.
- 3. Learn from the StatPREP team about what it means to be forward-thinking around the topic of linear regression and the different settings in which regression is used in practice.

REGISTER









Other Events

March 3, 10, 17 | 3-4:30pm ET A Journey to Selecting and Using Statistical Software for our Introductory Statistics Courses

Presented by Mortaza Jamshidian, Carlos Valencia, and Andrea Cullinen The move toward an increased emphasis on teaching foundational concepts in our introductory statistics courses (GAISE 2016) begs the use of technology. With the rise of a dizzying number of technology options, we will share our experience in selecting technology in this three-part series and give a preliminary walk-through of how we use software to introduce data exploration and inference. Attend any or all sessions of this series!

REGISTER

Learn more about MAA's Spring Virtual Programs at <u>maa.org/virtual-programming</u>

















LEADERSHIP TEAM

Mike Brilleslyper, Florida Polytechnic University Jenna Carpenter, Campbell University Danny Kaplan, Macalester College Kathryn Kozak, Coconino Community College Donna LaLonde, ASA Ambika Silva, College of the Canyons Deirdre Longacher Smeltzer, MAA

HUB LEADERS

Joe Roith, St. Olaf College, Northfield, MN (2017-18) Ambika Silva, College of the Canyons, Santa Clarita, CA (2017-18) Helen Burn, Highline College, Seattle, WA (2018-19) Hwayeon Ryu, Elon University, Elon, NC (2018-19) Carol Howald, Howard Community College, Columbia, MD (2019-2020) Thomas Kinzeler, Tarrant County College, Fort Worth, TX (2019-2020) Rona Axelrod, Florida SW State College, Fort Myers, FL (2020-2021)