

# Regina Nuzzo, PhD

Statistician, Journalist, Communicator, Professor

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## education

Ph.D. <b>Stanford University</b> , Statistics	2003
B.S. <b>University of South Florida</b> , Industrial Engineering	1996
Graduate certificate, <b>University of California-Santa Cruz</b> , Science Communication	2004

## professional experience

### positions

<b>Professor</b> / Associate Professor / Assistant Professor Department of Science, Technology & Mathematics <b>Gallaudet University</b> , Washington DC	2006 - present
<ul style="list-style-type: none"><li>- Teach undergraduate and graduate students statistics and data analysis using R, jamovi, JASP, SPSS, Tableau</li><li>- Provide statistical consulting for graduate students and faculty members</li></ul>	
<b>Lecturer</b> Spring 2022, Spring 2023, Summer 2023, Summer 2024, Summer 2025 Department of Primary Care and Population Health, School of Medicine <b>Stanford University</b> , Palo Alto CA	
<ul style="list-style-type: none"><li>- Co-developed and co-teach a statistics course for the Masters in Clinical Informatics Management program</li></ul>	
<b>Freelance Journalist and Writer</b>	2006 - present
<ul style="list-style-type: none"><li>- Experience with features, profiles, news, and service pieces for magazines and newspapers</li><li>- Specializing in statistics, probability, data analysis, the research process and biases, medicine, and health</li><li>- Clients include <i>Los Angeles Times</i>, <i>New York Times</i>, <i>Nature</i>, <i>New Scientist</i>, <i>Scientific American</i>, <i>Science News</i>, <i>Good Housekeeping</i>, <i>Prevention</i>, <i>ESPN the Magazine</i>, <i>AARP Magazine</i>, <i>Reader's Digest</i> and more</li></ul>	
<b>Senior Advisor for Statistics Communication and Media Innovation</b> <b>American Statistical Association</b> , Alexandria, VA	2019 - 2022
<ul style="list-style-type: none"><li>- Consulted with journalists on statistical matters, for both short-term and long-term deadlines</li><li>- Gave statistics workshops to non-statisticians</li><li>- Gave communication workshops and training to statisticians and other professional quantitative analysts</li><li>- Gave statistics workshops and training to journalists and other professional communicators</li></ul>	
<b>Adjunct Instructor</b> <b>Virginia Tech</b> , Arlington, VA	2020
<ul style="list-style-type: none"><li>- Developed and taught a course on statistics communication for Masters in Applied Statistics and Data Science program</li></ul>	
Science Writer <i>Proceedings of the National Academy of Sciences</i>	2005 - 2006
Science Journalism Fellow <b>Department of Energy's Idaho National Environmental Laboratory</b>	2004

Science Journalism Intern

2003 - 2004

**Monterey County Herald**

Post-doctoral Fellow, Centre de Recherches Mathématiques

2002 - 2003

**McGill University**, Montreal, Quebec, Canada

#### selected consultancies

##### **Stanford Engineering Center for Global & Online Education**

Co-developed *Demystifying Data*, a 16-module online course on learning statistics through case studies and *Introduction to Clinical Trials*, a 16-module online course on designing, analyzing, and interpreting clinical trial studies (with Kristin Sainani, Stanford University, 2024 and 2023, respectively)

##### **Applied Materials, Inc.**

Created a three-hour workshop for materials engineers on how to effectively communicate results from data analyses in writing and visualization, 2023 and 2024

##### **Council for the Advancement of Science Writing**

Co-developed a 12-module online course for science, environmental and health journalists, including case study video lectures and automated practice exercises (with Kristin Sainani, Stanford University), 2022

##### **U.S. Department of Labor**

Developed a 3-hour training workshop for judges at the Department of Labor's Office of Administrative Law Judges on how to understand and ask questions about complex multiple regression models used in Equal Opportunity legal cases, 2022

##### **Credit Suisse**

Co-developed and co-delivered a 3-hour training workshop for quantitative financial analysts on how to write about quantitative results and methodology more clearly and effectively (with Kristin Sainani, Stanford University), 2021

##### **SciLine at AAAS**

Developed a plain-language tipsheet for journalists on [how to cover opinion polls and surveys](#), 2020

##### **American Association of Public Opinion Researchers**

Developed a half-day course on effective quantitative communication for pollsters and public opinion researchers, 2020

##### **Massachusetts Institute of Technology Knight Science Journalism Fellowship Program**

Developed and presented full-day workshop, "Statistics for Science Journalists," to Knight Science Journalism Fellows (with Rebecca Goldin, George Mason University), 2017.

##### **American Statistical Association**

Planned and facilitated two-day on-site policy workshop for p-values scholars on building consensus, and coordinated writing the [ASA Statement on P-Values](#) (with ASA Executive Director Ron Wasserstein)

#### references

##### **Rosie Mestel**

Executive Editor, Knowable Magazine  
RMestel@annualreviews.org  
650-843-6696  
<https://knowablemagazine.org/our-staff>

##### **Rosalind Reid**

Former Executive Director, Council for the Advancement of Science Writing  
ros\_reid@casw.org  
617-308-2029  
<https://casw.org>

**Kristin Sainani**

Professor, Epidemiology and Population Health, Stanford University  
kcobb@stanford.edu  
650-723-6879  
<https://profiles.stanford.edu/kristin-sainani>

**Ron Wasserstein**

Executive Director, American Statistical Association  
ron@amstat.org  
703-684-1221  
<https://www.amstat.org/>

## selected writing

[Full list available online](#)  
[Google Scholar Profile](#)

## general audience

Nuzzo, Regina. [“When courtroom science goes wrong — and how stats can fix it.”](#) Comics. *Knowable Magazine*, October 2018. (with artist Maki Naro)

Nuzzo, Regina. [“Theodore Anderson, mathematician who advanced data analysis, dies at 98.”](#) Obituaries. *New York Times*, October 9, 2016.

Nuzzo, Regina. [“How scientists fool themselves – and how they can stop.”](#) News Features. *Nature*, October 7, 2015.

Nuzzo, Regina. [“Scientists Perturbed by Loss of Stat Tools to Sift Research Fudge from Fact.”](#) The Sciences. *Scientific American*, April 16, 2015.

Nuzzo, Regina. [“Chance: Peace talks in the probability Wars.”](#) *New Scientist*, Physics Features. March 2015.

Van Noorden, Richard, Brendan Maher, and Regina Nuzzo. [“The top 100 papers.”](#) *Nature News* 514, no. 7524 (2014): 550.

Nuzzo, Regina. [“The Future of Election Forecasting.”](#) The Sciences. *Scientific American*, November 1, 2014.

Nuzzo, Regina. [“Scientific Method: Statistical Errors.”](#) News Features. *Nature*, February 12, 2014.

Nuzzo, Regina. [“What happens when scientists experiment on themselves?”](#) Health Features. *Reader’s Digest*, 2014.

Nuzzo, Regina. [“Regrown nerves boost bionic ears.”](#) *Nature*, April 23, 2014.

Nuzzo, Regina. [“The best time to wage cyberwar.”](#) *Nature*, January 13, 2014.

Nuzzo, Regina. [“Online daters do better in the marriage stakes.”](#) News. *Nature*, June 3, 2013.

Nuzzo, Regina. [“Bigger not always better for penis size.”](#) News. *Nature*, April 8, 2013.

Nuzzo, Regina. [“Good Vibrations: U.S. Consumer Web Site Aims to Enhance Sex Toy Safety.”](#) Health Features. *Scientific American*, May 24, 2011.

Nuzzo, Regina. [“Online dating secrets, as revealed by math majors.”](#) Health: The Mating Game column feature. *Los Angeles Times*, May 23, 2011.

Nuzzo, Regina. [“Vying for a soul mate? Psych out the competition with science.”](#) Health: Features. *Los Angeles Times*, December 8, 2008.

Nuzzo, Regina. [“Science of the orgasm.”](#) Health: Features. *Los Angeles Times*, February 11, 2008.

Nuzzo, Regina. [“Nabbing Suspicious SNPs.”](#) Features: Biomedicine, Genes & Cells. *Science News*, June 21, 2008, Vol. 173, Issue No.19.

## technical audience

Nuzzo RL. [Communicating measures of relative risk in plain English](#). PM&R. 2022; 14(2): 283-287. doi:10.1002/pmrj.12761

- Nuzzo RL. [Mosaic plots for displaying and exploring categorical data](#). PM&R. 2021; 13: 531–534. <https://doi.org/10.1002/pmrj.12593>
- Nuzzo, R.L. (2020), [Principles for Writing about Quantitative Research](#). Journal of Injury, Function and Rehabilitation, 12: 420-422. <https://doi.org/10.1002/pmrj.12350>
- Nuzzo, R.L. (2019), [Making Continuous Measurements into Dichotomous Variables](#). Journal of Injury, Function and Rehabilitation, 11: 1132-1134. <https://doi.org/10.1002/pmrj.12228>
- Nuzzo, R.L. (2019), [Histograms: A Useful Data Analysis Visualization](#). Journal of Injury, Function and Rehabilitation, 11: 309-312. <https://doi.org/10.1002/pmrj.12145>
- Nuzzo, Regina L. ["Percent Differences: Another Look."](#) *Physical Medicine & Rehabilitation* 10, no. 6 (2018): 661-664
- Nuzzo, Regina L. ["An Introduction to Bayesian Data Analysis for Correlations."](#) (2017): 1278-1282.
- Nuzzo, Regina L. ["Randomization Test: An Alternative Analysis for the Difference of Two Means."](#) *Physical Medicine & Rehabilitation* 9, no. 3 (2017): 306-310.
- Nuzzo, Regina L. ["The box plots alternative for visualizing quantitative data."](#) *Physical Medicine & Rehabilitation* 8, no. 3 (2016): 268-272.
- Nuzzo, Regina L. ["The inverse fallacy and interpreting P values."](#) *Physical Medicine & Rehabilitation* 7, no. 3 (2015): 311-314.

selected invited talks  
and media  
appearances

[Full list available online](#)

- Keynote speaker, "Hacking the News Story," US Conference On Teaching Statistics, Pennsylvania State University, June 2023.
- Invited speaker, "Brain-Hacking Stats Communication: A Brief Tour," Marvin Zelen Public Symposium, Dana-Farber Harvard Cancer Center, September 2020.
- Invited speaker, "Flawed COVID-19 research: Why statistics is more important than ever," Joint Anesthesiology Grand Rounds Lecture, Weill Cornell Medical College, June 2020.
- Interviewee, "Fact check: Misleading bar graph presents distorted interpretation of black and white murder rates," Reuters Fact Check Team, June 2020.
- Keynote speaker, "Connecting 21st-Century Information to Stone-Age Brains: Numbers, Uncertainty, Surprise and More," ComSciCon Virginia Tech, February 2020.
- Invited speaker, "Human-Centered Quantitative Communication," Clinical and Translational Science Lecture Series, Virginia Tech and University of Virginia, December 2019.
- Keynote speaker, "Statistical Significance: How we got here and where we're going," Polish Pharmacoeconomics Society Conference, Warsaw, Poland, November 2019.
- Keynote speaker, "Why we should apply human-centered design to statistical communication," Open Statistics / Open Eyes Conference, University of Bologna, Cesena, Italy, September 2019.
- Keynote speaker, "Human-centered design and statistical significance," MuST Conference in Philosophy, Munich, Germany, July 2019.
- Keynote speaker, "Human-Centered Quantitative Communication for Clinicians and Patients," Association of Clinical and Translational Statisticians Annual

Meeting, Denver, Colorado, July 2019.

President's invited speaker, "How we scientists can stop fooling ourselves," Association of University Anesthesiologists Annual Meeting, Montreal, Canada, May 2019.

Keynote speaker, "Communicating modern statistical ideas to stubborn stone-age brains," Eurostat's New Techniques and Technologies for Statistics Conference, Brussels, Belgium, March 2019.

Invited presenter, "Statistics & Data Science Communication: Tips, Tricks, and Thoughts for a New Model of Engagement," University of Washington Biostatistics Seminar, October 2018

Invited presenter, "Statistics Communication: Thoughts on a New Model of Engagement," Pew Research Center "Shop Talk" seminar series, Washington, DC, September 2018

Plenary speaker, "How (not) to fool yourself with p-values and other statistics," American Psychological Association Convention, San Francisco, CA, August 2018.

Invited presenter, "Quantitative Communication: Tips and Tricks," Applied Biostatistical Sciences Network lecture series at the Michigan Institute for Clinical & Health Research, University of Michigan, Ann Arbor, MI, June 2018.

Invited presenter, "Understanding and Communicating P-values," University of Rochester Medical School, Rochester, NY, June 2018.

Invited professional night speaker, "How journalists think about statistics – and how they don't," Advanced Placement Statistics Readers' Conference, Kansas City, MO, June 2018.

Keynote speaker, "Communicating 21st-century public opinion research to skeptical stone-age brains," American Association for Public Opinion Research annual conference, Denver, CO, May 2018.

Invited presenter, "Why writing about statistics is so hard – and how to do it anyway," Washington Statistical Society Seminar Series, Washington, DC, April 2018.

Webinar presenter, "Beyond the P-Value," ExCyte Expert Flow Cytometry professional development series, March 22 2018.

Interviewee, "Prediction by the Numbers," PBS NOVA, 2018.

Invited presenter, "How not to fool yourself with p-values (and other statistics)," Distinguished Lecture Series in Educational Neuroscience, Gallaudet University, Washington, DC, January 2018.

Keynote speaker, "How not to fool yourself with statistics: Cognitive biases & understanding and communicating p-values," at "Statistical standards for scientific discovery in linguistics: a practical introduction" conference, Department of Linguistics, University of Zurich, Switzerland, October 4 2017.

Invited presenter, "How not to fool yourself with p-values and other statistics," Center for Multimodal Imaging Seminar Series, National Institute of Mental Health, Bethesda MD, August 2017.

Lecturer, "How not to fool yourself with p-values," Online Intensive for Brain Science: Imaging and Computation course, June 2017.

Invited panelist, "Workshop on Responsible Communication of Basic Biomedical Research: Enhancing Awareness and Avoiding Hype," Federation of American Societies for Experimental Biology in cooperation with the National Institute of General Medical Sciences (NIGMS), June 2017.

Invited presenter, "Fooling yourself with p-values and other statistics," Bioengineering Seminar Series, Fischell Department of Bioengineering, University of Maryland, April 2017.

Invited presenter, "How (not) to fool yourself with data," Open and Reproducible Neuroscience Workshop, National Institute of Mental Health,

March 2017.

Invited presenter, "Problems with P-values," University of Maryland School of Public Health Grand Rounds, April 2016.

Invited presenter, "P-values: Worth an Official Decree?" at Miami University Department of Statistics and Department of Journalism Seminar Series, Oxford, Ohio, March 2016.

Invited presenter, "P-Values: Controversies, Misunderstandings, and Abuses," at George Washington University Department of Epidemiology and Biostatistics Seminar Series, Washington, DC, December 4, 2015.

Invited presenter, "Statistics Meets Science Journalism," Cornell University Department of Statistics Seminar Series, November 2015.

Special speaker, "Communicating Statistics: P-Value Pitfalls, Sensational Science & the Media," American Statistical Association Philadelphia Chapter annual spring dinner, March 2015.

Invited speaker, "Five problems with p-values as illustrated through five stories about sex," Data Community DC Lecture Series, Washington DC, December 11, 2014.

Invited speaker, "Evidence –B(i)ased Medicine," Accademia Nazionale di Medicina meeting "Highlights in ginecologia oncologia," Camogli, Italy, November 28, 2014.

Invited speaker, "Statistical Significance: Problems and Controversies," Council for Responsible Nutrition annual meeting, Laguna Niguel, November 6, 2014.

Invited presenter, "Uncertainty and the P," U.S. Census Bureau Seminar Series, October 30, 2014.

Invited presenter, "The P-Value and Reproducibility," Laboratory of Cellular and Molecular Biology Seminar Series, National Cancer Institute, National Institutes of Health, October 28, 2014.

Guest, NBC's "TODAY Show," discussing science of mating in LA Times article "Vying for a soul mate," December 30, 2008.