# Lucy D'Agostino McGowan

www.lucymcgowan.com

☐ LucyMcGowan **Y** LucyStats ☐ 0000-0001-7297-9359

## EMPLOYMENT

Wake Forest University 2019-present

Assistant Professor, Department of Mathematics and Statistics

2018-2019 Johns Hopkins Bloomberg School of Public Health

Postdoctoral fellow with Jeffrey Leek

2017 March-August **RStudio** 

Internship under Jenny Bryan developing the 'googledrive' R package

2016-2017 Vanderbilt University

NIH Big Data to Knowledge Training Fellow

2015-2016, 2017-2018 Vanderbilt University

Research Assistant, Department of Biostatistics and VA Tennessee Valley

Cleveland Clinic 2015 Summer

Summer Graduate Fellow, Department of Quantitative Health Sciences

2013 Summer **Graham Colditz Laboratory** 

Summer Intern, Washington University School of Medicine

2012-2014 Washington University School of Medicine

Research Assistant, Gutmann Research Laboratory, Department of Neurology

Washington University School of Medicine 2012-2014

Statistical Data Analyst, Department of Surgery, Division of Public Health

Sciences

# **EDUCATION**

**PhD** in Biostatistics, May 2018

VANDERBILT UNIVERSITY

Thesis: Improving Modern Techniques of Causal Inference: Finite Sample Performance of ATM and ATO Doubly Robust Estimators, Variance Estimation for ATO Estimators, and Contextualized Tipping Point Sensitivity Analyses for Unmeasured Confounding

MS in Biostatistics, December 2013

Washington University School of Medicine

Thesis: Quantitative Assessment of the Community Research Fellows Training Program

BA in Religious Studies and Romance Languages University of North Carolina at Chapel Hill with Distinction and Highest Honors

# Invited Presentations

## CDC Statistical Advisory Group

ORAL PRESENTATION

Lucy D'Agostino McGowan, "The Journey to True: Accurate Statistical Communication."

#### Wake Forest University Department of Biostatistics and Data Science

ORAL

Presentation

Lucy D'Agostino McGowan, "Modern Statistical Communication in the Social Media Era."

# ASA Joint Statistical Meeting 2021

ORAL PRESENTATION

Lucy D'Agostino McGowan, "Examining the Impact of Software Instruction on Completion of Data Analysis Tasks."

#### R-Ladies Baltimore 2021

ORAL PRESENTATION

Lucy D'Agostino McGowan, "Let's get meta: analyzing your R code with tidycode."

Wake Forest University BI and Analytics Meeting Februrary 2021 ORAL PRESENTATION Lucy D'Agostino McGowan, "Hill's Criteria for the Data Scientist: Incorporating Causal Inference Techniques."

ENAR 2020 Oral Presentation

Lucy D'Agostino McGowan, "Tools for analyzing R code the tidy way."

SDSS 2020 Oral Presentation

Lucy D'Agositno McGowan, "Best Practices for Teaching R A Randomized Controlled Trial."

#### ASA Joint Statistical Meeting 2020

Oral Presentation

Lucy D'Agostino McGowan, "The Ups and Downs of Communicating Complex Statistics."

JupyterCon 2020 Keynote

Lucy D'Agostino McGowan, "Equipping and empowering future data scientists with confidence, intuition, and communication skills."

# CDC R Group 2020

ORAL PRESENTATION

Lucy D'Agostino McGowan, "ConTESSA: A Shiny App to Help Quantify Contact Tracing Efficacy."

Wake Forest School of Medicine Methods Conference 2020 ORAL PRESENTATION Lucy D'Agostino McGowan, "Applied Demonstration of the tipr R Package."

#### Macalester College 2019

KEYNOTE

Lucy D'Agostino McGowan, "There and back again, a data scientist's tale."

## ASA Joint Statistical Meeting 2019

ORAL PRESENTATION

Lucy D'Agostino McGowan, "Challenges in Augmenting Randomized Trials with Observational Health Records."

ENAR 2018 Oral Presentation

Lucy D'Agostino McGowan, Robert A. Greevy, Jr, "Exploring finite-sample bias in propensity score weights."

# Data Day Texas 2018

ORAL PRESENTATION

Lucy D'Agostino McGowan, "Making Causal Claims as a Data Scientist: Tips and Tricks Using R."

# ASA Joint Statistical Meeting 2018

ORAL PRESENTATION

Lucy D'Agostino McGowan, "Harnessing the Power of the Web via R Clients for Web APIs."

#### SAS Global Forum 2017

Oral Presentation

Lucy D'Agostino McGowan, "Streamline Your Workflow: Integrating SAS, LaTeX, and R into a Single Reproducible Document."

#### R-Ladies Nashville 2017

ORAL PRESENTATION

Lucy D'Agostino McGowan, "An R + GitHub Journey."

#### SAS Global Forum 2016

ORAL PRESENTATION

Lucy D'Agostino McGowan, Robert A. Greevy, Jr, "Integrating SAS and R to Perform Optimal Propensity Score Matching."

#### SAS Global Forum 2015

ORAL PRESENTATION

Lucy D'Agostino McGowan, Alice Toll, "Using PROC SURVEYREG and PROC SURVEYLOGISTIC to Assess Potential Bias."

#### SAS Global Forum 2014

ORAL PRESENTATION

Lucy D'Agostino McGowan, Melody S. Goodman, Kimberly A. Kaphingst, "Using SAS/STAT® Software to Validate a Health Literacy Prediction Model in a Primary Care Setting."

# Workshops and Panels

North Carolina Translational and Clinical Sciences Institute Lucy D'Agostino McGowan, "What is the value of the p-value?."

Panel

National Institute of Statistical Sciences Graduate Student Conference
Lucy D'Agostino McGowan, "Tips for Statistical Communication and Data Storytelling."

The Wake Forest 2022 Conference on Analytics Impact
Lucy D'Agostino McGowan, "Panel Discussion: Communicating during a pandemic:
what worked, what didn't and what's next."

Rstudio::conf 2022 Workshop Lucy D'Agostino McGowan and Malcolm Barrett, "Causal Inference in R."

ENAR 2021

Lucy D'Agostino McGowan, Caitlin Rivers, Eleanor Murray, Kareem Carr, Jeffrey Leek,

"Communicating Complex Statistical Concepts to Collaborators, Stakeholders, and the
General Public."

New York R Conference 2021 Workshop Lucy D'Agostino McGowan and Malcolm Barrett, "Causal Inference in R."

R-Ladies NYC
Lucy D'Agostino McGowan, Lynsie Daley, Kat Hoffman, Michael Kane, "Panel Discussion: Working with and learning from COVID-19 data."

ASA K-12 Virtual Workshops 2020 Workshop Lucy D'Agostino McGowan and Shannon Ellis, "Using RStudio Cloud in the Classroom."

eCOTS 2020
Laura Le, Kari Lock Morgan, Lucy D'Agostino McGowan, "Panel: Engaging Students during the COVID-19 Health Crisis."

NC School of Science and Math Data Science Panel 2020
Lucy D'Agostino McGowan, "Data Science at Wake Forest University."

user!2020 Workshop Lucy D'Agostino McGowan and Malcolm Barrett, "Causal Inference in R."

R in Government Conference
Lucy D'Agostino McGowan and Malcolm Barrett, "Causal Inference in R."

WORKSHOP

ENAR 2019
Lucy D'Agostino McGowan, "Data Visualizations with ggplot2."

WORKSHOP

Women in Statistics and Data Science 2017

Jenny Bryan, Mine Cetinkaya-Rundel, Lucy D'Agostino McGowan, Gabriela de Queiroz,

Mine Dogucu, Katherine Scranton, Jennifer Thompson, "R-Ladies Panel: Improving
gender diversity in a male-dominated community."

# Contributed Presentations

- rstudio::global 2021 Oral Presentation Lucy D'Agostino McGowan, "Designing Randomized Studies using Shiny."
- Women in Statistics and Data Science 2021 ORAL PRESENTATION Lucy D'Agostino McGowan, "Bringing Data Science Communication into the Classroom."
- ENAR 2017 ORAL PRESENTATION Lucy D'Agositno McGowan, Robert Alan Greevy, Jr, "Simplifying and Contextualizing Sensitivity to Unmeasured Confounding Tipping Point Analyses."
- UseR!2017

  Character Correction 
  Oracle Presentation 
  Lucy D'Agostino McGowan, Nick Strayer, Jeff Leek, "papr: Tinder for pre-prints, a Shiny 
  Application for collecting gut-reactions to pre-prints from the scientific community."
- ASA Joint Statistical Meeting 2017 Speed (Oral + Poster) Presentation Lucy D'Agostino McGowan, Robert A. Greevy, Jr, "Contextualizing Sensitivity Analysis in Observational Studies: Calculating Bias Factors for Known Covariates."
- ASA Joint Statistical Meeting 2016
  Lucy D'Agostino McGowan, Robert A. Greevy, Jr, "Practical Guidance and Tools for Rule-Out Sensitivity to Unmeasured Confounding Analyses."
- ASA Joint Statistical Meeting 2016

  Ryan Jarrett, Lucy D'Agostino McGowan, "Assessing the Association Between Accident Injury Severity and NCAP Car Safety Ratings"."
- ASA Joint Statistical Meeting 2015 Speed (Oral + Poster) Presentation Lucy D'Agostino McGowan, Alice Toll, "Census Tract-Level Disparities: Examining Food Swamps and Food Deserts."
- 141st American Public Health Association Annual Meeting 2013

  Lucy D'Agostino McGowan, Melody S. Goodman, "Developing County-Level Estimates of Racial Disparities in Obesity Using Multilevel Reweighted Regression."
- 141st American Public Health Association Annual Meeting 2013 Oral Presentation Lucy D'Agostino McGowan, Melody S. Goodman, "Small Areal Estimation of Racial Disparities in Diabetes Using Multilevel Reweighted Regression."
- SAS Analytics 2013
  Lucy D'Agostino McGowan, Patrick J. McGowan, "Mining Through Resumes: Utilizing
  SAS to Increase Efficiency and Objectivity in the Hiring Process."
- Northeast SAS Users Group 2013 Lucy D'Agostino McGowan, "SAS ® for Budgeting an Ideal Wedding."
- Northeast SAS Users Group 2013 ORAL PRESENTATION Lucy D'Agostino McGowan, Melody S. Goodman, "Using PROC GLIMMIX and PROC SGPLOT to Demonstrate County-level Racial Disparities in Obesity in North Carolina."
- SAS Global Forum 2013

  Lucy D'Agostino McGowan, Melody S. Goodman, "Multilevel Reweighted Regression Models to Estimate County-Level Racial Health Disparities Using PROC GLIMMIX."

# **Publications**

## +Indicates equal contributions

- 1. **D'Agostino McGowan L**, D'Agostino Sr RB, D'Agostino Jr RB (2022 (Accepted)). "A Visual Diagnostic Tool for Causal Inference." *Observational Studies*.
- 2. **D'Agostino McGowan L**, Peng RD, Hicks SC (2022 (In Press)). "Design Principles for Data Analysis." *Journal of Computational and Graphical Statistics*, 1-14. doi: 10.1080/10618600.2022.2104290 (URL: https://doi.org/10.1080/10618600.2022.2104290).
- 3. Rando HM, MacLean AL, Lee AJ, Ray S, Bansal V, Skelly AN, Sell E, Dziak JJ, Shinholster L, **D'Agostino McGowan L**, others (2021). "Pathogenesis, Symptomatology, and Transmission of SARS-CoV-2through Analysis of Viral Genomics and Structure." *mSystems*. doi: 10.1128/mSystems.00095-21 (URL: https://doi.org/10.1128/mSystems.00095-21).
- 4. Molino AR, Andersen KM, Sawyer SB, Đoàn LN, Rivera YM, James BD, Fox MP, Murray EJ, **D'Agostino McGowan L**, Jarrett BA (2022). "The Expert Next Door: Interactions With Friends and Family During the COVID-19 Pandemic." *American journal of epidemiology*, 191(4), 552-556.
- 5. Fox M, Carr K, **D'Agostino McGowan L**, Murray E, Hidalgo B, Banack H (2021). "Will Podcasting and Social Media Replace Journals and Traditional Science Communication? No, but..." *American Journal of Epidemiology*.
- 6. Grantz KH, Lee EC, **D'Agostino McGowan L**, Lee KH, Metcalf CJE, Gurley ES, Lessler J (2021). "Maximizing and evaluating the impact of test-trace-isolate programs: A modeling study." *PLoS medicine*, 18(4), e1003585.
- 7. +Cohen JB, +**D'Agostino McGowan L**, Jensen ET, Rigdon J, South AM (2021). "Evaluating sources of bias in observational studies of angiotensin-converting enzyme inhibitor/angiotensin II receptor blocker use during COVID-19: beyond confounding." *Journal of Hypertension*, 39(4), 795.
- 8. **D'Agostino McGowan L**, Grantz KH, Murray E (2021). "Quantifying Uncertainty in Mechanistic Models of Infectious Disease." *American Journal of Epidemiology*, 190(7), 1377-1385.
- 9. Fox MP, **D'Agostino McGowan L**, James BD, Lessler J, Mehta SH, Murray EJ (2020). "Concerns About the Special Article on Hydroxychloroquine and Azithromycin in High Risk Outpatients with COVID-19 by Dr. Harvey Risch." *American Journal of Epidemiology*.
- 10. **D'Agostino McGowan L**, Kross S, Leek J (2020). "Tools for Analyzing R Code the Tidy Way." *The R Journal*, 12(1), 226-242. doi: 10.32614/RJ-2020-011 (URL: https://doi.org/10.32614/RJ-2020-011).
- 11. Liberman JS, **D'Agostino McGowan L**, Greevy RA, Morrow JA, Griffin MR, Roumie CL, Grijalva CG (2020). "Mental health conditions and the risk of chronic opioid therapy among patients with rheumatoid arthritis: a retrospective veterans affairs cohort study." *Clinical Rheumatology*, 1-10.

- 12. Griffin L, Carter M, D'Agostino Jr R, **D'Agostino McGowan L** (2019). "Comparative Effectiveness of Two Collagen-containing Dressings: Oxidized Regenerated Cellulose (ORC)/Collagen/Silver-ORC Dressing Versus Ovine Collagen Extracellular Matrix." Wounds: a compendium of clinical research and practice, 31(11), E73.
- 13. Wickham H, Averick M, Bryan J, Chang W, **D'Agostino McGowan L**, François R, Grolemund G, Hayes A, Henry L, Hester J, Kuhn M, Pedersen TL, Miller E, Bache SM, Müller K, Ooms J, Robinson D, Seidel DP, Spinu V, Takahashi K, Vaughan D, Wilke C, Woo K, Yutani H (2019). "Welcome to the tidyverse." *Journal of Open Source Software*, 4(43), 1686. doi: 10.21105/joss.01686 (URL: https://doi.org/10.21105/joss.01686).
- 14. Singh DP, Gabriel A, Silverman RP, Griffin LP, **D'Agostino McGowan L**, D'Agostino Jr RB (2019). "Meta-analysis Comparing Outcomes of Two Different Negative Pressure Therapy Systems in Closed Incision Management." *Plastic and Reconstructive Surgery Global Open*, 7(6).
- 15. Pun BT, Balas MC, Barnes-Daly MA, Thompson JL, Aldrich JM, Barr J, Byrum D, Carson SS, Devlin JW, Engel HJ, Esbrook CL, Hargett KD, Harmon LR, Hielsberg C, Jackson JC, Kelly TL, Kumar V, Millner L, Morse A, Perme CS, Posa PJ, Puntillo KA, Schweickert WD, Stollings JL, Tan A, D'Agostino McGowan L, Ely EW (2019). "Caring for critically ill patients with the ABCDEF bundle: results of the ICU liberation collaborative in over 15,000 adults." Critical Care Medicine, 47(1), 3-14.
- 16. Murff HJ, Roumie CL, Greevy RA, Hackstadt AJ, **D'Agostino McGowan L**, Hung AM, Grijalva CG, Griffin MR (2018). "Metformin use and incidence cancer risk: evidence for a selective protective effect against liver cancer." Cancer causes & control: CCC, 27(10), 1-10.
- 17. **D'Agostino McGowan L**, Roumie CL (2018). "Sulfonylureas as second line treatment for type 2 diabetes." *BMJ*, 362.
- 18. Blume JD, **D'Agostino McGowan L**, Dupont WD, Greevy Jr RA (2018). "Second-generation p-values: Improved rigor, reproducibility, & transparency in statistical analyses." *PloS one*, 13(3), e0188299.
- 19. Roumie CL, Min JY, **D'Agostino McGowan L**, Presley C, Grijalva CG, Hackstadt AJ, Hung AM, Greevy RA, Elasy T, Griffin MR (2017). "Comparative safety of sulfonylurea and metformin monotherapy on the risk of heart failure: a cohort study." *Journal of the American Heart Association*, 6(4), e005379.
- 20. **D'Agostino McGowan L**, Bullen JA, Obuchowski NA (2016). "Location bias in ROC studies." *Statistics in Biopharmaceutical Research*, 8(3), 258-267.
- 21. Drake BF, Brown K, **D'Agostino McGowan L**, Haslag-Minoff J, Kaphingst K (2016). "Secondary consent to biospecimen use in a prostate cancer biorepository." *BMC research notes*, 9(1), 346.
- 22. **D'Agostino McGowan L**, Stafford JD, Thompson VL, Johnson-Javois B, Goodman MS (2015). "Quantitative evaluation of the community research fellows training program." Frontiers in public health, 3, 179.

- 23. Chen Y, **D'Agostino McGowan L**, Cimino PJ, Dahiya S, Leonard JR, Lee DY, Gutmann DH (2015). "Mouse low-grade gliomas contain cancer stem cells with unique molecular and functional properties." *Cell reports*, 10(11), 1899-1912.
- 24. Kaphingst KA, Stafford JD, **D'Agostino McGowan L**, Seo J, Lachance CR, Goodman MS (2015). "Effects of racial and ethnic group and health literacy on responses to genomic risk information in a medically underserved population." *Health Psychology*, 34(2), 101.
- 25. Griffey RT, Kennedy SK, **D'Agostino McGowan L**, Goodman M, Kaphingst KA (2014). "Is low health literacy associated with increased emergency department utilization and recidivism?" *Academic Emergency Medicine*, 21(10), 1109-1115.
- 26. Diggs-Andrews KA, Brown JA, Gianino SM, **D'Agostino McGowan L**, Rubin JB, Wozniak DF, Gutmann DH (2014). "reply." *Annals of neurology*, 75(5), 800-801.
- 27. Fisher MJ, Loguidice M, Gutmann DH, Listernick R, Ferner RE, Ullrich NJ, Packer RJ, Tabori U, Hoffman RO, Ardern-Holmes SL, Hummel TR, Hargrave DR, Bouffet E, Charrow J, Bilaniuk LT, Balcer LJ, **D'Agostino McGowan L**, Liu GT (2014). "Gender as a disease modifier in neurofibromatosis type 1 optic pathway glioma." Annals of Neurology, 75(5), 799-800.
- 28. Colditz GA, **D'Agostino McGowan L**, James AS, Bohlke K, Goodman MS (2014). "Screening for colorectal cancer: Using data to set prevention priorities." *Cancer Causes & Control*, 25(1), 93-98.
- 29. **D'Agostino McGowan L**, Gennarelli RL, Lyons SA, Goodman MS (2013). "Using smallarea analysis to estimate county-level racial disparities in obesity demonstrating the necessity of targeted interventions." *International journal of environmental research and public health*, 11(1), 418-428.

# Computing

Expert: R, Shiny, Git/GitHub, LATEX, HTML/CSS, SAS

Familiar: Python, Stata, ArcGIS

# Software

#### Author & Maintainer

**ConTESSA**: A Shiny Application developed in collaboration with the John Hopkins Infectious Disease Dynamics group to help contact tracing program managers.

pald: An R package to calculate partioned local depth (PaLD) probabilities for clustering

tipr: An R package with tools for conducting tipping point sensitivity analyses.

**googledrive**: An R package that interfaces with Google Drive from R, allowing users to seamlessly manage files on Google Drive from the comfort of their console.

**contributr**: A Shiny Application developed in collaboration with Maelle and rOpenSci for finding beginner GitHub issues to contribute to.

**papr**: Tinder for pre-prints, a Shiny Application developed in collaboration with Jeff Leek and Nick Strayer for collecting gut-reactions to pre-prints from the scientific community

#### Author

datasauRus: An R package made in collaboration with Steph Locke consisting of The Datasaurus Dozen, a set of datasets with the same summary statistics. They retain the same summary statistics despite having radically different distributions. The datasets represent a larger and quirkier object lesson that is typically taught via Anscombe's Quartet.

meetupr: An R package authored and maintained by R-Ladies to interface with the Meetup API

#### Contributer

**cowsay**: An R package that allows printing of character strings as messages/warnings/etc. with ASCII animals, including cats, cows, frogs, chickens, ghosts, and more.

**RJafroc**: And R package for analyzing data acquired using the Receiver Operating Characteristic paradigm and its extensions.

# TEACHING EXPERIENCE

## Wake Forest University

- (Spring) STA 379/679: Causal Inference (2022)
- (Spring) BEM 392: Math Business Capstone (2022)
- (Spring) STA 363: Statistical Learning (2020)
- (Fall) STA 312: Linear Models (2020)
- (Fall) STA 363: Statistical Learning (2020)
- (Fall) STA 212: Statistical Modeling (2019)

#### Vanderbilt University

- Frank Harrell's Regression Modeling Strategies (2017)
- Statistical Collaboration in Health Sciences Teaching Assistant (2015)
- Modern Regression Analysis Teaching Assistant (2015)
- Principles of Modern Biostatistics Teaching Assistant (2015)

## Washington University in St. Louis

- Introduction to SAS Teaching Assistant (2013)
- Introduction to Clinical Epidemiology Teaching Assistant (2013)
- Randomized Controlled Trials Teaching Assistant (2013)

#### Online Courses

- Measuring and Maximizing Impact of COVID-19 Contact Tracing (2020-2021)
- Creating dynamic dashboards with the shinydashboard R package (2019)
- Understanding data and statistics in the medical literature (2019)
- ggplot2 in 2: Learn the ggplot2 R package in 2 hours (2019)

# STUDENT ENGAGEMENT

## **Undergraduate Theses**

- Noah Edwards-Thro, Clustering NBA data (2021-2022)
- Jonathan Trattner, Tools for Designing Online Randomized Trials Using the Shiny Framework (2020-2021)
- Nuri Park, Best Practices for Teaching R: A Randomized Controlled Trial (2020-2021)
- Hannah Mendoza, The Impact of Disclosing Uncertainty on Decision Making: A Randomized Controlled Trial (2020)

#### **Independent Studies**

- Iris Liu, Building a Dashboard and Gaining Insight into Reynolda Museum Data, URECA Wake Forest Research Fellowship (Funded Research) (Summer 2020)
- Sofia Blankenship, Independent Study Building a Shiny Application (Course Credit) (Fall 2019)
- Sophia Fang, Understanding Statistics and Data in The Medical Literature Course Update (2020)
- Hannah Luebbering, Studies on Teaching Programming: A Literature Review (2020)

# Professional Activities

#### **Internal Service**

2020-2022 Wake Forest College Covid-19 Steering Committee Working Group

2020-2021 Peer Learning Community Facilitator, WFU Center for Advancement of Teaching

2020-2021 Statistics Hiring Committee Member

2020-2021 Committee member, Postdoc Hiring Committee

2020 Math Club Faculty Co-Chair

2019-2020 Faculty advisor, Wake Forest University ASA Student Chapter

2019-2020 Founding committee member, DataFest

2019-2020 Committee member, Statistics Curriculum Committee

2019-2020 Founder, Reynolda Data Science Lab

#### **Professional Service**

2021-2022 Council on Emerging and New Statisticians Liason, ENAR Regional Advisory Board

2021 Chair, ASA Committee on Women in Statistics

2020-2022 Member, ENAR Regional Advisory Board

2020-2022 Committee of Presidents of Statistical Societies (COPSS) Communications Officer

2020-2021 Committee member, ENAR Program Committee

Vice-chair, Chair-elect, ASA Committee on Women in Statistics

2019, 2022-2024

Committee member, ASA Committee on Women in Statistics

2019-2021 ASA Council of Sections Representative, Section on Statistical Computing

2019-2021 Associate Editor (Social Media), The American Journal of Epidemiology

2019-2021 Committee member, ASA Computing and Graphics Student Paper Award Selection Committee

2019 Interim Program Chair, ASA Statistics Communication Interest Group

2018 Committee member, Women in Statistics and Data Science Service Project

2017-2018 President, Nashville ASA Student Chapter

2017 Panelist, Inaugural ASA Student Chapter Workshop

2016-2017 Vice President, Co-founder, Nashville ASA Student Chapter

2014 Abstract reviewer, Applied Public Health Statistics, American Public Health Association

#### Referee

Biostatistics, The American Statistician, BMJ Open, rOpenSci, American Journal of Epidemiology, Statistics in Medicine, Journal of the Royal Statistical Society, Nature Biotechnology, PLOS One, Observational Studies and Biometrics

# OUTREACH

2019-2022 Casual Inference Podcast co-host, sponsored by the American Journal of Epidemiology

2017-2018 President, Vanderbilt Biostatistics Graduate Student Association

2017-2018 Abstract reviewer, R-Ladies Global

2016-2019 Co-founder, Co-organizer, R-Ladies Nashville

2016-2017 President, Vanderbilt Graduate Student Council

2016-2017 Vice President, Vanderbilt Biostatistics Graduate Student Association

2016 useR Student Volunteer

2015-2016 Tutor, Tennessee Office of Refugees

2015 Scholar, Scholarship of Teaching and Learning

2014-2015 Vice President of Social Affairs, Vanderbilt Graduate Student Council

# Awards

2020	JupyterCon Invited Keynote Speaker
2019	Winning team, ASA Leadership Challenge
2018	Vanderbilt Biostatistics Travel Award (ENAR)
2017	NASA Datanauts, Class of 2017
2017	useR!2017 Young Academic Scholarship
2017	Caucus for Women in Statistics Travel Award
2016	First Place, GSS Student Data Challenge, ASA Joint Statistical Meeting
2016	Second Place, SPAAC Poster Competition, ASA Joint Statistical Meeting
2016	Southern Startup Internship Program in Data Science (South BDHub)
2016	Vanderbilt Commodore Award in Biostatistics
2015	First Place, GSS Student Data Challenge, ASA Joint Statistical Meeting
2015	Prezi Student Ambassador
2014	SAS Student Scholar, PharmaSUG
2014	SAS Student Ambassador, SAS Global Forum 2014
2013	First Place, Student Research Competition, 141st APHA Annual Meeting
2013	Ellis R. Ott Scholarship: ASQ Statistics Division
2013	Best Contributed Paper in the Statistics and Data Analysis Section at SAS Global Forum
2013	SAS Student Scholar, NESUG
2013	SAS Student Ambassador, SAS Global Forum 2013
2012	Gertrude M. Cox Scholarship for Women in Statistics Honorable Mention
2012	NIAF Jim Cantalupo Scholarship
2011-2012	National Society of Leadership and Success
2011	Dunlevie Honors Undergraduate Research Award
2010	Programma Ponte Scholarship
2010	Newman Scholar
2009-2012	UNC Dean's List
2008-2012	UNC Public Service Scholar

# GRANTS

## Study of the Epidemiology of Pediatric Hypertension Registry (PI: Andrew South)

Wake Forest School of Medicine's Translational Research Initiative Joint Pilot Project

Role: Co-investigator

2020-2021

## Maximizing and Evaluating the Impact of Contact Tracing Programs (PI: Emily Gurley)

Bloomberg Philanthropies WFU Amount: \$15,000

Role: Consultant

2020-2021

## Leadership and Character Course Redesign Grant

Wake Forest University Center for the Advancement of Teaching

WFU Amount: \$1,000 Role: Course Designer

2020

## A study of various methods to teach R programming

Wake Forest University Center for the Advancement of Teaching SoTL Seed Grant Fund

WFU Amount: \$940

Role: Principle investigator

2019-2020

# Press

Covid-19 safety doesn't have to be all or nothing. Here's how to think about it going forward. (2022) *Vox.* Available at: https://www.vox.com/23000377/how-to-use-covid-data-numbers-protect-yourself-high-risk

Is Covid More Dangerous Than Driving? How Scientists Are Parsing Covid Risks. (2022) The New York Times. Available at: https://www.nytimes.com/2022/04/17/science/covid-risks.html

How to think about masking on planes, trains, and buses right now (2022) *Vox.* Available at: https://www.vox.com/23036148/should-i-mask-when-flying-riding-subway-bus-uber

**Just Tweak Some Parameters** (2022) Not So Standard Deviations Podcast. Available at: https://nssdeviations.com/154-just-tweak-some-parameters

Professors Carry Remote Learning Learned into New Semester (2021) Spectrum News. Available at: https://spectrumlocalnews.com/nc/charlotte/news/2021/01/14/professors-carry-lessons-learned-into-new-semester

Celebrating Women in Statistics (2021) Amstat News Magazine. Available at: https://magazine.amstat.org/blog/2021/03/01/lucy-dagostino-mcgowan/

Quantifying vaccine effectiveness: How to properly report breakthrough cases (2021) BBC Radio Interview with Stephen Nolan. Available at: https://web.archive.org/web/20210725064237/https://www.bbc.co.uk/sounds/play/m000y7cq

Alarmed about breakthrough COVID cases? Here's how experts say to read the numbers (2021) News and Observer. Available at: https://amp.newsobserver.com/article253223608. html?\_\_twitter\_impression=true

You're probably reading breakthrough COVID-19 case numbers the wrong way. Here's why (2021) CBS Raleigh. Available at: https://www.cbs17.com/news/north-carolina-news/youre-probably-reading-breakthrough-covid-19-case-numbers-the-wrong-way-heres-why/

Wake Forest researcher suggests looking at breakthrough cases differently (2021) Winston-Salem Journal. Available at: https://journalnow.com/news/local/wake-forest-researcher-suggests-looking-at-breakthrough-cases-differently/article\_63f199bc-fdeb-11eb-a5f3-cff52aab66fa.html

Lucy D'Agostino McGowan: The essential stats on breakthrough cases (2021) Winston-Salem Journal. Available at: https://journalnow.com/opinion/columnists/lucy-dagostino-mcgowan-the-essential-stats-on-breakthrough-cases/article\_95b8860e-004d-11ec-b022-77e8b9178b2a.html

Reports on breakthrough COVID cases causing confusion about vaccine effectiveness (2021) Wake Forest News. Available at: https://news.wfu.edu/2021/08/11/reports-on-breakthrough-covid-cases-causing-confusion-about-vaccine-effectiveness/

Wake Forest researcher: There aren't a lot of vaccinated people in the hospital (2021) *Hickory Daily Record*. Available at: https://hickoryrecord.com/wake-forest-researcher-there-arent-a-lot-of-vaccinated-people-in-the-hospital/article\_d7555b28-feae-11eb-b9c4-972aad27fb50.html

Why you shouldn't be concerned when more vaccinated people are getting infected than unvaccinated (2021) RMIT ABC Fact Check. Available at: https://www.abc.net.au/news/2021-08-06/coronacheck-israel-higher-numbers-vaccinated-people-infected/100353540

Analysis: Why COVID-19 cases are rising in Canada (2021) Ottawa Sun. Available at: https://ottawasun.com/diseases-and-conditions/coronavirus/covid-19-cases-rising-in-canada/wcm/57a7281a-62f2-4982-aedb-b8732fc22303

Vaccines Remain Largely Effective Against Delta Variant, Counter to Claims From Fox News Guest (2021) The Washington Informer. Available at: https://www.washingtoninformer.com/vaccines-remain-largely-effective-against-delta-variant-counter-to-claims-from-fox-news-guest/

Could rapid result low sensitivity SARS-CoV-2 tests improve pandemic quarantine strategies? (2021) News Medical Life Sciences. Available at: https://www.news-medical.net/news/20210203/Could-rapid-result-low-sensitivity-SARS-CoV-2-tests-better-guide-pandemic-quarantine-strategies.aspx

Committee Spotlight: Committee on Women in Statistics (2021) Amstat News Magazine. Available at: https://magazine.amstat.org/blog/2021/07/01/committee-on-women-in-statistics/

Breakthrough COVID-19 & Delta (2021) Epidemiology Counts, a Society for Epidemiologic Research Podcast. Available at: https://serepidemiologycounts.blubrry.net/2021/09/09/epidemiologycounts-episode-28-breakthrough-covid-19-delta/

Six Rules That Will Define Our Second Pandemic Winter (2021) The Atlantic. Available at: https://www.theatlantic.com/health/archive/2021/09/six-ways-think-about-pandemic-now/620129/

How to stay safe this Thanksgiving, even as the COVID pandemic remains a threat (2021) USA Today. Available at: https://www.usatoday.com/story/opinion/2021/11/21/how-to-stay-safe-thanksgiving-holidays-covid-tests/8671612002/?gnt-cfr=1

@WomeninStat + Rotating Curators = Success (2021) Amstat News Magazine. Available at: https://magazine.amstat.org/blog/2021/12/01/womencurator/

The power of professors: Peer learning communities advance the art of teaching during a pandemic (2020) Wake Forest News. Available at: https://news.wfu.edu/2020/08/04/the-power-of-professors-peer-learning-communities-advance-the-art-of-teaching-during-a-pandemic/

Why the 'COVID-19 killed only 6%' argument is wrong by Justin Lessler and Lucy D'Agostino McGowan (2020) USA Today Op-Ed. Available at: https://www.usatoday.com/story/opinion/2020/09/02/why-covid-19-killed-only-6-argument-wrong-column/3454179001/

ASA Fellows Analysis by Lucy D'Agostino McGowan and Katherine Monti (2020) Amstat News Magazine. Available at: https://magazine.amstat.org/blog/2020/10/01/asa-fellows-analysis/

Indoor Church Services Are COVID-19 Hot Spots: Here's Why (2020) *Healthline*. Available at: https://www.healthline.com/health-news/indoor-church-services-are-covid-19-hot-spots-heres-why#Church-outbreaks

How to protect yourself and others from spreading COVID-19 at Thanksgiving dinner by Justin Lessler and Lucy D'Agostino McGowan (2020) USA Today Op-Ed. Available at: https://www.usatoday.com/story/opinion/2020/11/25/how-reduce-risk-getting-covid-19-thanksgiving-dinner-column/6419700002/

A casual conversation concerning causal inference (2020) Practical AI Podcast. Available at:

https://changelog.com/practicalai/113

Special Guest Lucy D'Agostino McGowan (2020) Not So Standard Deviations Podcast. Available at: https://nssdeviations.com/118-special-guest-lucy-dagostino-mcgowan

Rising Star Talks About Statistics Journey, Future of the Profession (2018) Amstat News Magazine. Available at: http://magazine.amstat.org/blog/2018/09/01/startalksstatistics/

Diabetes: Switching to common drugs raises risk of complications (2018) Medical News Today. Available at: https://www.medicalnewstoday.com/articles/322523

Women in Data Science & How to Help (2018) Super Data Science Podcast. Available at: https://www.superdatascience.com/podcast/podcast-women-in-data-science

Is your research hot or not? US boffins create "Tinder for preprints" (2017) The Register. Available at: https://www.theregister.co.uk/2017/06/19/science\_research\_tinder\_preprint\_app/

Great paper? Swipe right on the new "Tinder for preprints" app (2017) Science. Available at: http://www.sciencemag.org/news/2017/06/great-paper-swipe-right-new-tinder-preprints-app

Swipe right for science: Papr app is "Tinder for preprints" (2017) Nature. Available at: https://www.nature.com/news/swipe-right-for-science-papr-app-is-tinder-for-preprints-1.22163

What Do Lucy D'Agostino McGowan and Ryan Jarrett Do When They Are Not Being Statisticians? (2017) Amstat News Magazine. Available at: https://magazine.amstat.org/blog/2017/11/01/lucy-dagostino-mcgowan-and-ryan-jarrett/