Lucy D'Agostino McGowan

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orcid
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languages
proficient Italian literary, written, & oral skills

programming
dev: R **use:** R, SAS, Stata, Python, ArcGIS

defining attributes
goal-driven leadership, advanced analytic skills, strategic thinking, resourceful team player, sunny disposition 🌳, public speaking, organizational & communication skills

Interests

causal inference, propensity score analyses, R package development, observational study methods, predictive modeling, large-scale inference, R-Ladies, data science pedagogy

Education

PhD Student in Biostatistics, GPA 3.95 — 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, GPA 3.88 — Washington University School of Medicine
Thesis: *Quantitative Assessment of the Community Research Fellows Training Program*

BA with Distinction and Highest Honors — University of North Carolina at Chapel Hill
Religious Studies: GPA 3.92 Romance Languages: GPA 3.86

Research Experience

2018-present	**Johns Hopkins Bloomberg School of Public Health**, Postdoctoral Fellow with Jeff Leek
2017-2018 2015-2016	**Vanderbilt University**, Research Assistant, Department of Biostatistics and VA Tennessee Valley
2017	**RStudio**, internship under Jenny Bryan
2016-2017	**Vanderbilt University**, NIH Big Data to Knowledge Training Fellow
Summer 2015	**Cleveland Clinic**, Graduate Fellow, Department of Quantitative Health Sciences
2012-2014	**Washington University School of Medicine**, Statistical Data Analyst promoted from Research Assistant, Department of Surgery, Division of Public Health Sciences

Awards

2017	Caucus for Women in Statistics Travel Award
2017	useR!2017 Young Academic Scholarship
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)
2015	First Place, GSS Student Data Challenge, ASA Joint Statistical Meeting
2013	Best Contributed Paper in the Statistics and Data Analysis SAS Global Forum
2013	First Place, Student Research Competition, 141st APHA Annual Meeting
2013	Ellis R. Ott Scholarship: ASQ Statistics Division
2012	Gertrude M. Cox Scholarship for Women in Statistics Honorable Mention

Outreach

2017-2018	Vanderbilt Biostatistics Graduate Student Association, President
2017-2018	Nashville ASA Student Chapter, President
2016-2017	R-Ladies Nashville, co-founder
2016-2017	Vanderbilt Graduate Student Council, President
2016-2017	Vanderbilt Biostatistics Graduate Student Association, Vice President
2016-2017	Nashville ASA Student Chapter, Vice President
2015-2017	Tennessee Office of Refugees, Tutor
2015	Scholarship of Teaching and Learning, Scholar

Select Invited Presentations

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."

SAS Global Forum 2017   Oral Presentation

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

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."

Contributed Presentations

ENAR 2017   Oral Presentation

Lucy D'Agositno McGowan, Robert Alan Greevy, Jr, "Simplifying and Contextualizing Sensitivity to Unmeasured Confounding Tipping Point Analyses."

useR!2017   Oral 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."

Women in Statistics and Data Science 2017   Panel

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."

ASA Joint Statistical Meeting 2016   Poster

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   Oral Presentation

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   Poster

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   Poster

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   Poster

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   Oral Presentation

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

Peer-reviewed Publications

Blume, J. D., **D'Agostino McGowan, Lucy**, Dupont, W. D., & Greevy, R. A. (2018). Second-generation p-values: Improved rigor, reproducibility, & transparency in statistical analyses. *PloS One*, *13*(3), e0188299.

Roumie, C. L., Min, J. Y., **D'Agostino McGowan, Lucy**, Presley, C., Grijalva, C. G., Hackstadt, A. J., … Griffin, M. R. (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.

D'Agostino McGowan, Lucy, Bullen, J. A., & Obuchowski, N. A. (2016). Location Bias in ROC Studies. *Statistics in Biopharmaceutical Research*, 00–00.

Drake, B. F., Brown, K., **D'Agostino McGowan, Lucy**, Haslag-Minoff, J., & Kaphingst, K. (2016). Secondary consent to biospecimen use in a prostate cancer biorepository. *BMC Research Notes*, *9*(1), 346.

Kaphingst, K. A., Stafford, J. D., **D'Agostino McGowan, Lucy**, Seo, J., Lachance, C. R., & Goodman, M. S. (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), 101–110.

Chen, Y.-H., **D'Agostino McGowan, Lucy**, Cimino, P. J., Dahiya, S., Leonard, J. R., Lee, D. Y., & Gutmann, D. H.

(2015). Mouse Low-Grade Gliomas Contain Cancer Stem Cells with Unique Molecular and Functional Properties. *Cell Reports*, *10*(11), 1899–1912.

D'Agostino McGowan, Lucy, Stafford, J. D., Thompson, V. L., Johnson-Javois, B., & Goodman, M. S. (2015). Quantitative Evaluation of the Community Research Fellows Training Program. *Frontiers in Public Health*, *3*(1), 11.

Fisher, M. J., Loguidice, M., Gutmann, D. H., Listernick, R., Ferner, R. E., Ullrich, N. J., … Liu, G. T. (2014). Gender as a disease modifier in neurofibromatosis type 1 optic pathway glioma. *Annals of Neurology*, *75*(5), 799–800.

Griffey, R. T., Kennedy, S. K., **D'Agostino McGowan, Lucy**, Goodman, M., & Kaphingst, K. A. (2014). Is low health literacy associated with increased emergency department utilization and recidivism? *Academic Emergency Medicine : Official Journal of the Society for Academic Emergency Medicine*, *21*(10), 1109–1115.

Diggs-Andrews, K. A., Brown, J. A., Gianino, S. M., **D'Agostino McGowan, Lucy**, Rubin, J. B., Wozniak, D. F., & Gutmann, D. H. (2014). Reply. *Annals of Neurology*, *75*(5), 800–801.

Colditz, G. A., **D'Agostino McGowan, Lucy**, James, A. S., Bohlke, K., & Goodman, M. S. (2014). Screening for colorectal cancer: using data to set prevention priorities. *Cancer Causes & Control : CCC*, *25*(1), 93–98.

D'Agostino McGowan, Lucy, Gennarelli, R., Lyons, S., & Goodman, M. (2013). Using Small-Area 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.