

# gwynn gebeyehu, ph.d.

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## Interests

The theme of my research is making science accessible to all. In my project, *Delivering Data Differently*, I investigate recent developments in human-computer interaction that engage more than a mouse/touchpad, keyboard, and screen to see how these tools can impact upon the current practice of statistics, data science, and artificial intelligence. I am also interested in revamping introductory statistics and melding fine arts and science to address this problem. Lastly, I develop applied statistical methods.

## Academic Appointments

2022–2022 **Lecturer**, *Wharton Business School*, Philadelphia, PA.

supervisor Dylan Small

description Sole lecturer of three sections of Introduction to Business Statistics with each section having approximately 100 students. Updated curriculum to include R, and taught quarto to new users.

## Education

2011–2016 **PhD in Statistics**, *The University of Auckland*, New Zealand.

title *Statistical modeling of carryover effects after cessation of treatments*

supervisor Thomas Lumley

description Developed methods to test for effects after cessation of treatments when diagnosis occurs when a noisy measurement crosses a threshold.

2002–2003 **Diploma in Teaching (Secondary)**, *The University of Auckland*, New Zealand.

2000–2002 **MS in Mathematics**, *Northern Arizona University*, Flagstaff, AZ, Actuarial Science.

1995–1999 **BA in Mathematics**, *St. Mary's College of Maryland*, St. Mary's City, MD, *Cum Laude*.

1998 **Certificado Avanzado de la Lengua Española**, *Universidad de Salamanca*, Salamanca, España.

## Research experience

2020–2022 **Postdoctoral Fellow at Harvard Business School**, *Laboratory for Innovation Science at Harvard*, Boston, MA.

title *National Survey of Academic Researchers*

supervisor Kyle Myers

description Supported development of survey and data collection for census of academic researchers.

2016–2018 **Postdoctoral Fellow in Biostatistics**, *The University of Massachusetts, Amherst*, Amherst, MA.

title *Matching in Cluster Randomized Trials Using the Goldilocks Approach*

supervisor Ken Kleinman

description Initiated development and built shiny application for balancing baseline covariates prior to randomization in trials with a small number of units. Developed my own plots using base R.

## Publications

Andrew Gelman and S. Gwynn Sturdevant. From visualization to 'sensification'. *AmStat News: The Membership Magazine of the American Statistical Association*, pages 18–19, January 2023.

S. Gwynn Sturdevant, Susan S. Huang, Richard Platt, and Ken Kleinman. Matching in cluster randomized trials using the goldilocks approach. *Contemporary Clinical Trials Communications*, 22:100746, 2021.

S. Gwynn Sturdevant and Thomas Lumley. Testing for carryover effects after cessation of treatments: a design approach. *BMC Medical Research Methodology*, 16(1):1–8, 2016.

S. Gwynn Sturdevant and Thomas Lumley. Statistical methods for testing carryover effects: A mixed effects model approach. *Contemporary Clinical Trials Communications*, 22:100711, 2021.

## Presentations

- June 2022 — Panel Discussion — In-ventures 2022
- March 2022 — Oral Presentation — Columbia University
- April 2021 — Oral Presentation — Bureau of Labor Statistics
- January 2021 — Oral Presentation — WhyR?
- November 2020 — Oral Presentation — LondonR
- July 2019 — Invited Keynote — Erasmus Data Analytics Summit
- May 2019 — Oral Presentation — Data Visualization DC
- December 2018 — Oral Presentation — SatRdays DC
- October 2018 — Oral Presentation — RLadies DC
- Nov 2021 — Oral Presentation — NYC chapter of the ASA
- February 2021 — Oral Presentation — Data Mishaps Night
- December 2020 — Oral Presentation — R|Gov
- July 2020 — Panel Discussion — Women in AI Summit
- July 2019 — Panel Discussion — Women in Artificial Intelligence
- January 2019 — Oral Presentation — RLadies LA
- November 2018 — Oral Presentation — Statistical Programming DC
- September 2018 — Oral Presentation — RLadies Baltimore

- July 2018 — Poster Presentation — International Biometric Conference
- December 2013 — Oral Presentation — Australasian Region of the International Biometric Society
- October 2013 — Oral Presentation — Australasian Epidemiological Association
- December 2011 — Oral Presentation — The University of Auckland
- June 2018 — Oral Presentation — NIH/NCI
- November 2013 — Oral Presentation — New Zealand Statistical Association
- September 2012 — Oral Presentation — The University of Auckland
- May 2011 — Poster — The University of Auckland

## Workshops and Conferences

- Aug 2022 — Invited Session Organizer — Joint Statistical Meetings — Delivering data differently
- May 2019 — Teaching Assistant — Dr. Garret Grolumend — ASA - COC Traveling Course: Welcome to the Tidyverse: An Introduction to R for Data Science
- Jan 2020 — Teaching Assistant — Dr. Alison Hill — RStudio Conf: Introduction to Machine Learning in the tidyverse
- February 2019 — Teaching Assistant — Dr. Max Kuhn — Fannie Mae - Applied Machine Learning Workshop

## Teaching

- 2004–2015 **Teacher**, Local High Schools, Auckland, New Zealand.  
A much-loved and highly-regarded educator who was well respected throughout multiple schools.
- Taught varying levels of math, statistics, and introductory Spanish;
  - Performed skills assessments, provided advice and counseling.
- 2011–2014 **Statistics Tutor and Grader**, *The University of Auckland*, Auckland, NZ.
- 2000–2001 **Graduate Teaching Assistant**, *Northern Arizona University*, Flagstaff, AZ.
- 1998–1998 **Teaching Assistant**, *St. Mary's College of MD*, St. Mary's City, MD.

### Other

- 1999–2000 **Student Actuary**, *Milliman USA*, Vienna, VA.
- 2018–2020 **Data Scientist**, *Volanno*, Washington, DC.

## Languages

English Fluent  
Spanish Fluent

## Computer skills

Statistical Environments R, ADMB, SAS, Python, Stan  
Unix, Mac  
Other  $\LaTeX$ , Googling

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## Professional service

- Administrator, RForwards taskforce, 2021 -
- Co-founder, R User Group at Harvard Data Science Initiative
- useR! 2021 Host
- Organizer of Government Advances in Statistical Programming, 2020
- Member, RForwards taskforce, 2020 - 2021
- Member, Minorities in R, 2020 - 2021
- Panelist and Moderator satRdaysDC, 2020
- Organizer of RLadies DC (2018 - 2021)
- Occasional chair and member, R Consortium diversity and inclusion working group (2019 - )
- Ambassador for Women in Analytics, 2020
- useR! 2020 Diversity Committee
- Chair of Postgraduate Staff/Student Consultative Committee, 2013
- PhD Statistics Department Representative, 2013
- Captain of the Stats Mean Team, 2013

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## References

### Academic

- Professor Thomas Lumley  
Department of Statistics  
University of Auckland  
t.lumley@auckland.ac.nz
- Professor Ken Kleinman  
Department of Biostatistics and Epidemiology  
University of Massachusetts, Amherst  
ken.kleinman@gmail.com
- Professor Andrew Gelman  
Departments of Statistics and Political Science  
Columbia University  
gelman@stat.columbia.edu

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## Awards and scholarships

- Joint Statistical Meetings 2022, Diversity Workshop & Mentoring Program: Travel Award
- RStudio 2022, diversity scholarship
- useR! 2020, diversity scholarship
- BA Cum Laude
- St. Mary's Senior Scholar
- St. Mary's College of Maryland — Dean's List