Bryan Blette

Curriculum Vitae

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Education

2015–present **Ph.D. in Biostatistics**, *University of North Carolina at Chapel Hill*.
Dissertation advisor: Dr. Michael Hudgens
Title: Causal Inference for Error-Prone Exposures
Expected defense semester: Spring 2021

2015–2018 **M.S. in Biostatistics**, *University of North Carolina at Chapel Hill*.
Master's Paper advisors: Drs. Leah Frerichs and Annie Green-Howard
Title: Changes in School District Physical Activity and Nutrition Policies: A Latent Class Analysis of the School Health Policies and Practices Study

2012–2015 **B.S. in Mathematics and Statistics**, *University of Florida*.
Cumulative GPA: 3.94/4.00
Study Abroad, Florence University of the Arts, Florence, Italy, 2014 (GPA: 4.00/4.00)

Publications

Peer-reviewed

1. Becker-Dreps, S., **Blette, B.**, Briceño, R., Alemán, J., Hudgens, M.G., Moreno, G., Ordoñez, A., Rocha, J., Weber, D.J. and Amaya, E., 2017. Changes in the incidence of pneumonia, bacterial meningitis, and infant mortality 5 years following introduction of the 13-valent pneumococcal conjugate vaccine in a" 3+ 0" schedule. *PloS one*, 12(8), p.e0183348.

2. **Blette, B.S**, Howard, A.G. and Frerichs, L.M., 2019. High School Physical Activity and Nutrition Policy: Summarizing Changes Over Time Using Latent Class Analysis. *American journal of preventive medicine*, 57(3), pp.e69-e76.

3. Neidich, S.D., Fong, Y., Li, S.S., Geraghty, D.E., Williamson, B.D., Young, W.C., Goodman, D., Seaton, K.E., Shen, X., Sawant, S., Zhang, L., ..., **Blette, B.**, ..., Tomaras, G., 2019. Antibody Fc effector functions and IgG3 associate with decreased HIV-1 risk. *Journal of Clinical Investigation*, 129(11), pp.4838-4849.

4. Collins, M.H., Zepeda, O., **Blette, B.**, Jadi, R., Morales, M., Pérez, R., Liou, G.J.A., Montoya-Cruz, M., Harris, E., Becker-Dreps, S. and de Silva, A.M., 2020. Serologic surveillance of maternal Zika infection in a prospective cohort in Leon, Nicaragua during the peak of the Zika epidemic. *PloS one*, 15(4), p.e0230692.

5. Gilbert, P.B., **Blette, B.S.**, Shepherd, B.E. and Hudgens, M.G., 2020. Post-randomization Biomarker Effect Modification Analysis in an HIV Vaccine Clinical Trial. *Journal of Causal Inference*, 8(1), pp.54-69.

6. Vielot, N., González, F., Reyes, Y., Zepeda, O., **Blette, B.** et al., Risk factors and clinical profile of sapovirus-associated gastroenteritis in early childhood: a Nicaraguan birth cohort study (accepted, *The Pediatric Infectious Disease Journal*)

Under Review

7. Stringer, E., Martinez, E., **Blette, B.** et al., Neurodevelopmental outcomes of children asymptomatic at birth following in utero exposure to Zika Virus in Nicaragua (under revision, *Clinical Infectious Diseases*)

8. Bowman, N., Bucardo, F., Collins, M., Reyes, Y., Cuadra, E., **Blette, B** et al., Clinical and epidemiological features of acute Zika virus infections (submitted)

In Preparation

9. **Blette, B.**, Gilbert, P., Hudgens, M., Addressing concurrent confounding and exposure measurement error using conditional score functions

10. **Blette, B.**, Gilbert, P., Hudgens, M., Causal joint modeling of longitudinal and survival data: An IPW approach

11. Gilbert, P. and **Blette, B.**, Analysis of the RV144 Case-Control Env CD4+ T cell ICS Data Set to Assess Specific Cell Subset Signatures of Vaccine Efficacy

Presentations

Oral Presentations

1. **Blette, B.**, Gilbert, P., Hudgens, M. Structural Joint Modeling of Longitudinal and Survival Data. *ENAR Spring Meeting*. 2020

2. **Blette, B.** Preparing for the next Zika epidemic: Clinical, Epidemiological, and Statistical Challenges. *UNC Prospective Students Day*. 2020

3. **Blette, B.**, Gilbert, P., Hudgens, M. Structural Joint Modeling of Longitudinal and Survival Data. *UNC Student Seminar*. 2019

4. **Blette, B.**, Gilbert, P., Shepherd, B., Hudgens, M. Post-randomization Biomarker Effect Modification in an HIV Vaccine Clinical Trial. *ENAR Spring Meeting*. 2019

5. **Blette, B.**, Richardson, A., Jiao, Y. Modeling Considerations in Data-Driven Attribution. *Google Internship Presentation*. 2018

6. **Blette, B.**, Ploutz-Snyder, R., Feiveson, A. Data Analysis Challenges in the Space Life Sciences. *Space Life Sciences Summer Institute Research Conference*. 2015

Posters

1. **Blette, B.**, Howard, A.G., Frerichs, L. Latent Class Analysis for Classification of Latent Policy Environments: A Case Study. *Joint Statistical Meetings*. 2019

Research Experience

Academic Research

2015–present **Research Assistant**, *Department of Biostatistics*, UNC - Chapel Hill.
Advisor: Dr. Michael Hudgens
Collaborates on methodological statistics research, primarily involving vaccine evaluation, biomarkers, and HIV/AIDS

2016–present	**Research Assistant**, *Department of Family Medicine*, UNC - Chapel Hill.
	Advisor: Dr. Sylvia Becker-Dreps
	Collaborates and consults on several international projects studying infectious diseases, including Zika virus, pneumococcal disease, and sapovirus

Industry Research

2018	**Quantitative Analyst Intern**, Google.
	Hosts: Drs. Amy Richardson and Yang Jiao
	Worked as a research intern on data driven attribution for the Ads team, collaborating with data scientists and software engineers to extend a modeling framework in order to improve attribution output

Government Research

2015	**Research Apprentice**, *National Space Biomedical Research Institute*, Johnson Space Center, NASA.
	Advisor: Dr. Alan Feiveson
	Worked on many research projects for internal use, including but not limited to developing models to determine maximal terminal velocity for spacecraft while preventing injury risk for astronauts and designing simulations to determine feasibility of maintaining healthy nutrition for astronauts on long-term space missions to Mars given the prevailing space food advancements at that time

Teaching

2020	**Academic Enrichment Program Tutor**, *Intro to Biostatistics / Intro to Epidemiology*, BIOS 600 / EPID 600, UNC - Chapel Hill.
	Acted as the official school of public health tutor for introductory courses in biostatistics and epidemiology
2017	**Teaching Assistant**, *Intro to Biostatistics*, BIOS 600, UNC - Chapel Hill.
	Assisted professor in writing exams and quizzes, created formats for students to take quizzes online, graded exams, hosted review sessions for exams, and assisted students one-on-one throughout the semester
2015	**Teaching Assistant**, *Intro to Statistics*, STA 2023, University of Florida.
	Managed the tutoring room for several hours each week, proctored exams, graded papers and exams, and taught multiple lab classes each week
	Scored well above the school, department, and class averages in teacher evaluations at the end of the semester in each of 10 evaluation criteria, as reported by students
2012-present	**Tutor**, *Various capacities*.
	Tutored undergraduate and graduate students in several areas and rigor levels of mathematics and statistics from a wide range of universities, including University of Florida, UNC-Chapel Hill, and Duke University

Honors and Awards

2020	ASA Biopharmaceutical Section Scholarship Award
2020	AcademyHealth HSRProj Research Competition - Finalist, with Natalie Smith and Katherine Miller
2018,2019	UNC Conference Travel Award
2017	National Defense Science and Engineering Graduate Fellowship - Alternate Selection (received a fundable score but ultimately not selected for funding)

2016	UW SISMID Travel Award
2015	Mohberg Scholarship (awarded to one first-year Biostatistics Ph.D. student)
2015	Anderson Scholar (one of the top graduating students from UF Liberal Arts and Sciences)
2014	Elected to Phi Beta Kappa, Phi Kappa Phi, and Golden Key International Honour Societies
2012	University of Florida Presidential Scholar
2012	National Merit Scholar

Leadership Experience

2020–present **Steering Committee**, *Council for Emerging and New Statisticians*, ENAR.
- Organize council events and activities as part of four-member steering committee for 2-year term
- Prepare to co-chair committee in 2021

2018–2020 **Webmaster**, *Biostatistics Student Association*, UNC - Chapel Hill.
- Redesigned the organization's website based on student feedback
- Updated the website and Facebook page with new events and opportunities

2014–2015 **President**, *Phi Beta Lambda*, Business Leadership Organization, University of Florida.
- Redesigned competition strategies and led the chapter members to win the most awards per student in the state as well as most in recorded chapter history
- Conducted meetings, presided over events and conferences, and managed a team of 10 officers in charge of recruiting new members, organizing guest speakers, and planning socials and community service events
- Previously acted as Vice President (2013 – 2014)

2014–2015 **Webmaster**, *University Math Society*, University of Florida.
- Designed new pages on the organization's website and updated the website and Facebook page with upcoming events
- Managed the organization's listserv and facilitated communication with members

Service

2019–present **Council Member**, *ENAR*, Council for Emerging and New Statisticians.

2019–present **Reviewer**, https://publons.com/researcher/1694891/bryan-blette.

2018–2020 **Student Delegate**, *Graduate Admissions Committee*, Department of Biostatistics, UNC - Chapel Hill.

2019 **Panelist**, *Choosing a Dissertation Advisor Panel*, Department of Biostatistics, UNC - Chapel Hill.

2016 **Panelist**, *Finding an Internship Panel*, Department of Biostatistics, UNC - Chapel Hill.

2013–2015 **Organizer**, *MMATHS*.
- Coordinated the first and second annual MMATHS (Math Majors of America Tournament for High Schoolers) with other math majors
- Supervised events and served as head proctor during individual testing