

Benjamin ACKERMAN

PERSONAL DATA

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EDUCATION

- 2015 - PRESENT **PhD Candidate, Biostatistics**
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Advisor: Dr. Elizabeth STUART
Thesis Title: "Statistical Methods for Transportability: Addressing External Validity and Measurement Error Concerns in Randomized Trials"
GPA: 3.81/4
- 2011 - 2015 **Bachelor of Arts, Public Health Studies**
Johns Hopkins University, Baltimore, MD
Minor: Applied Mathematics and Statistics
Honors Thesis: *The Association Between Genetic Variants and IQ among Individuals with Autism Spectrum Disorders* | Advisor: Dr. Yin YAO
GPA: 3.83/4

RELEVANT EXPERIENCE

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| Current
JUNE 2016 | Research Assistant, Department of Biostatistics
<i>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD</i>
Worked with thesis advisor Dr. Elizabeth Stuart to evaluate statistical methods for assessing and improving upon the generalizability of randomized controlled trials. Applied methods to a randomized trial related to methamphetamine dependence, and developed sensitivity analyses for partially unobserved effect modifiers. |
| Current
MARCH 2016 | Statistician/Programmer
<i>SAJE Consulting, Baltimore, MD</i>
Conducted data analysis and produced publication-ready graphics for various research studies conducted by pharmaceutical and biotechnology companies using statistical software R. Contributed to analyses for reports to the following regulatory agencies: FDA, EMA and NOMA. |
| SUMMER 2018 | Fellow, Data Science for Social Good
<i>Center for Data Science & Public Policy, University of Chicago, Chicago, IL</i>
Partnered with AllianceChicago to build a predictive model to identify patients at risk of developing Type 2 Diabetes using de-identified electronic health records (EHR) data. |
| SEPT 2016 -
AUG 2017 | Research Assistant, Department of Mental Health
<i>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD</i>
Collaborated with Dr. Heather Volk to examine the relationship between prenatal air pollution exposure and risk of Autism Spectrum Disorders, using data from the Boston Birth Cohort. |
| OCT 2015 -
OCT 2017 | Research Assistant, Center for Public Health and Human Rights
<i>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD</i> |

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- Worked with Dr. Tonia Poteat to estimate HIV risk among MSM, transgender and gender variant populations in Africa. Merged survey data across eight different countries, and explored issues regarding survey methodology and gathering data on sexual orientation and gender identity.
- SUMMER 2014 | **Undergraduate Intern, Unit on Statistical Genomics**
National Institute of Mental Health, Bethesda, MD
Evaluated the association between genetic variants and IQ among individuals with Autism Spectrum Disorders. Conducted statistical analysis using PLINK and FBAT software.
- SEPT-DEC 2013 | **Data Analyst, Department of Infectious Diseases**
Assaf Harofeh Medical Center, Tzrifin, Israel
Assessed the epidemiology of carbapenem-resistant enterobacter species in patients at AHMC and Detroit Medical Center. Determined risk factors for mortality for patients infected by CRE bacteria. Developed multivariate models to determine risk factors, and created a Kaplan Meier curve to assess patient survival over time.
- SUMMER 2013 | **Columbia Summer Institute Training in Biostatistics (CSIBS)**
Columbia University Mailman School of Public Health, New York, NY
Participated in 8-week program supported by the National Heart Lung and Blood Institute. Gained proficiency in SAS programming and conducted research in Center for Behavioral Cardiovascular Health with Dr. Keith Diaz.

PUBLICATIONS

1. Nguyen, T. Q., **Ackerman, B.**, Schmid, I., Cole, S., Stuart, E.A. (2018). "Sensitivity analyses for effect modifiers not observed in the target population when generalizing treatment effects from a randomized controlled trial: Assumptions, models, effect scales, data scenarios, and implementation details." *PLoS One*, <https://doi.org/10.1371/journal.pone.0208795>
2. **Ackerman, B.**, Schmid, I., Rudolph, K. E., Seamans, M. J., Susukida, R., Mojtabai, R., Stuart, E.A. (2018). "Implementing statistical methods for generalizing randomized trial findings to a target population." *Addictive Behaviors*, <https://doi.org/10.1016/j.addbeh.2018.10.033>
3. Lenis, D., **Ackerman, B.**, Stuart, E.A. (2018). "Measuring model misspecification: Application to propensity score methods on complex survey data." *Computational Statistics & Data Analysis*, 128, 48-57. <https://doi.org/10.1016/j.csda.2018.05.003>
4. Poteat, T., **Ackerman, B.**, Diouf, D., Ceesay, N., Mothopeng, T., Odette, K-Z, et al. (2017) "HIV prevalence and behavioral and psychosocial factors among transgender women and cisgender men who have sex with men in 8 African countries: A cross-sectional analysis." *PLoS Med*, 14(11): e1002422. <https://doi.org/10.1371/journal.pmed.1002422>
5. Stuart, E. A., **Ackerman, B.**, Westreich, D. (2017). "Generalizability of randomized trial results to target populations: Design and analysis possibilities." *Research on Social Work Practice*, 28(5), 532-537.
6. Tao, Y., Gao, H., **Ackerman, B.**, Guo, W., Saffen, D., Shugart, Y. Y. (2016). "Evidence for contribution of common genetic variants within chromosome 8p21.2-8p21.1 to restricted and repetitive behaviors in autism spectrum disorders." *BMC Genomics*, 17(1), 163.
7. Lazarovitch, T., Amity, K., Coyle, J. R., **Ackerman, B.**, Tal-Jasper, R., Ofer-Friedman, H., et al. (2015). "The complex epidemiology of carbapenem-resistant enterobacter infections: A multicenter descriptive analysis." *Infection Control and Hospital Epidemiology*, 36(11), 1283-1291.

HONORS AND AWARDS

- 2017 **JHSPH Delta Omega Poster Competition - 2nd Place (Applied Research)**
- 2015 **Best Senior Thesis in Public Health**
- 2011-2015 **Dean's List**

TALKS AND PRESENTATIONS

- 2019 **generalize: Statistical Software for Implementing Methods to Generalize Randomized Trial Findings to a Well-Defined Target Population**
Institute of Education Sciences (IES) Annual PI Meeting, Washington, DC, Poster.
- 2018 **Sensitivity Analysis for an Unobserved Moderator in Trial-to-Target-Population Generalization of Treatment Effects**
Society for Research on Educational Effectiveness (SREE) Spring 2018 Conference, Washington, DC, Contributed Talk.
- Estimating Population Effects: Case Study of Generalizing Results of a Methamphetamine Dependence Trial**
International Conference on Health Policy Statistics (ICHPS), Charleston, SC, Contributed Talk.
- 2017 **Characterizing the Burden of HIV and Specific Vulnerabilities among Transgender Women compared to Men who have Sex with Men across Eight Sub-Saharan African Countries**
Joint Statistical Meetings (JSM), Baltimore, MD, Topics Contributed Talk.
- Characterizing the Burden of HIV and Specific Vulnerabilities among Transgender Women compared to Men who have Sex with Men across Eight Sub-Saharan African Countries**
Johns Hopkins LGBT Research Day, Baltimore, MD, Talk.
- 2016 **Sensitivity Analysis for an Unobserved Moderator in RCT-to-Target-Population Generalization of Treatment Effects**
Joint Statistical Meetings (JSM), Chicago, IL, SPEED Talk and Poster.
- 2015 **Genetic Variants and IQ Among Individuals with Autism Spectrum Disorder**
6th Annual Undergraduate Conference in Public Health, Baltimore, MD, Talk and Poster.
- 2014 **Genetic Variants and IQ Among Individuals with Autism Spectrum Disorder**
National Institutes of Health Summer Research Program Poster Day, Bethesda, MD, Poster.

TEACHING EXPERIENCE

- FA 2018 **Advanced Data Science I (Guest Lecturer), JHSPH (25 graduate students)**
Professors: Dr. Stephanie Hicks, Dr. Roger Peng
Designed and led a 50-minute tutorial on creating R packages, Shiny apps and GitHub pages

Graduate Teaching Assistant

- SP 2018- **Causal Inference in Medicine and Public Health I, JHSPH (60 graduate students)**

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- 2019 Professor: Dr. Elizabeth Stuart
TA. Held weekly office hours to review causal inference topics for both experimental and non-experimental studies.
- FA 2016- **Public Health Biostatistics, JHU** (225 undergraduate students)
2018 Professors: Dr. Margaret Taub, Dr. Leah Jager
Section Instructor. Reviewed introductory statistical concepts and R programming skills.
- SP 2017- **Statistical Methods in Public Health III, JHSPH** (500 MPH students)
2018 Professors: Dr. Marie Diener-West, Dr. Leah Jager, Dr. Jim Tonascia
TA. Held weekly office hours for to review regression topics, provided assistance with STATA programming.

Undergraduate Teaching Assistant

- FA 2013- **Public Health Biostatistics, JHU** (200 undergraduate students)
2014 Professors: Dr. Scott Zeger, Dr. Margaret Taub, Dr. Leah Jager
Learning Den Tutor and Guest Lecturer. Held biweekly small group review sessions.

SHINY WEB APPLICATIONS

- 2017 **How will the House Tax Bill Impact Graduate Students?**
Featured in Science Magazine (see section on Tuition Waivers)
<https://benjaminackerman.shinyapps.io/GOPtax2017/>

COMPUTING SKILLS

- Languages** Proficient: R, Python, SQL
Intermediate: SAS, SPSS, Stata
- Markup** \LaTeX , knitr, markdown, Sweave
- Other** Git, Microsoft Word, Excel, PowerPoint, Google Documents