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CONTACT Social Science Research Institute Phone: (919)-681-1863 Information 140 Science Drive, 256 Gross Hall Email: olanrewaju.akande@duke.edu Box 90989, Durham NC 27708 Web: https://akandelanre.github.io Bayesian modeling, models for editing erroneous data, multiple imputation, Research Interests missing data, mixture models, and hierarchical modeling. EDUCATION Ph.D. in Statistical Science, Duke University 2019 Dissertation: "Bayesian Models for Imputing Missing Data and Editing Erroneous Responses in Surveys" Advisor: Jerome P. Reiter M.S. in Statistical and Economic Modeling, Duke University 2015 Thesis: "A Comparison of Multiple Imputation Methods for Categorical Data" Advisors: Jerome P. Reiter and Fan Li B.Sc. in Mathematics and Statistics, University of Lagos, Nigeria 2010 First class honors Positions Instructor 2019 - present Social Science Research Institute, Duke University Research Assistant 2014 - 2019 Department of Statistical Science, Duke University Summer 2017 Summer Research Fellow U.S. Food and Drug Administration Analyst 2012 - 2013 KPMG Professional Services, Nigeria

Publications:
Peer-reviewed
& Invited
Papers

Analyst

- 1. **Akande, O.**, Reiter, J. P., and Barrientos, A. F. (2019), "Multiple Imputation of Missing Values in Household Data with Structural Zeros," *Survey Methodology*, 45:2, 271-294.
- 2. **Akande, O.**, Barrientos, A. F., and Reiter, J. P. (2018), "Bayesian Simultaneous Edit and Imputation For Household Data with Structural Zeros," *Journal of Survey Statistics and Methodology*, 0, 1-22.

Aterios Capital Limited, Lagos, Nigeria

3. Akande, O., Li, F., and Reiter, J. P. (2017), "An Empirical Comparison of Multiple Imputation Methods for Categorical Data," *The American Statistician*, 71:2, 162-170.

# Publications: Manuscripts Under Review

- 4. **Akande, O.**, Madson, G., Hillygus, D. S., and Reiter, J. P., "Leveraging Auxiliary Information on Marginal Distributions in Nonignorable Models for Item and Unit Nonresponse in Surveys," submitted to *Journal of the Royal Statistical Society A.* [arXiv Link]
- 5. **Akande, O.** and Reiter, J. P., "Multiple Imputation for Nonignorable Item Nonresponse in Complex Surveys Using Auxiliary Margins," in volume in memory of Steve Fienberg, Springer.
- 6. Hu, J., **Akande, O.**, and Wang, Q., "Data imputation and data synthesis with the R package NPBayesImputeCat," submitted.

# Publications: Articles in Preparation

7. **Akande, O.**, Hu, J., Wang, Q., and Reiter, J. P., "Edit-Imputation and Synthetic Data Generation For Household Data with the R package NestedCategBayesImpute," in preparation.

# Presentations, Workshops & Posters

- 1. "Leveraging Auxiliary Information on Marginal Distributions in Nonignorable Models for Item and Unit Nonresponse in Surveys," Contributed talk at Joint Statistical Meetings, Denver, CO. July 2019.
- 2. "Leveraging Auxiliary Information on Marginal Distributions in Nonignorable Models for Item and Unit Nonresponse in Surveys," Department of Statistical Science seminar series talk at Duke University, Durham, NC. March 2019.
- "Handling Missing Data and Faulty Responses in Household Data," Invited faculty candidate seminar talk at University of Toronto, ON, Canada. January 2019.
- 4. "Handling Missing Data and Faulty Responses in Household Data," Invited faculty candidate seminar talk at Bucknell University, Lewisburg, PA. December 2018.
- 5. "Handling Missing Data and Faulty Responses in Household Data," Invited faculty candidate seminar talk at Duke University, Durham, NC. November 2018.
- 6. "Bayesian Simultaneous Edit and Imputation For Household Data with Structural Zeros," Contributed talk at Advances in Interdisciplinary Statistics and Combinatorics, Greensboro NC. October 2018.
- 7. "Bayesian Simultaneous Edit and Imputation For Household Data with Structural Zeros," Contributed talk at Joint Statistical Meetings, Vancouver, BC, Canada. July 2018.
- 8. "Leveraging Auxiliary Information on Marginal Distributions in Nonignorable Models for Item and Unit Nonresponse in Surveys," Contributed

- poster at Society for Political Methodology, Brigham Young University, Provo, UT. July 2018.
- 9. "Bayesian Simultaneous Edit and Imputation For Household Data with Structural Zeros," Seminar talk at Duke University, Department of Statistical Science. January 2018.
- 10. "Multiple Imputation of Missing Values in Household Data with Structural Zeros," Department of Statistical Science seminar series talk at Duke University, Durham, NC. February 2017.

#### Teaching

<u>Instructor</u>, Social Science Research Institute, Duke University

• IDS 702: Modeling and Representation of Data

Fall 2019

Instructor, Department of Statistical Science, Duke University

• STA 111: Probability and Statistical Inference Summer 2014, Summer 2016, Summer 2018

Guest Lecturer, Department of Statistical Science, Duke University

• STA 210: Regression Analysis (undergrad) Fall 2018

• STA 723: Statistics Case Studies (PhD level) Spring 2018

Teaching Assistant, Department of Statistical Science, Duke University

• STA 440: Case Studies (senior undergrad) Fall 2018

• STA 723: Statistics Case Studies (PhD level) Spring 2018

• STA 732: Theoretical Statistics (PhD level) Spring 2017

• STA 111: Probability and Statistical Inference Spring 2014

### Software

NestedCategBayesImpute: R package for Modeling & Generating Synthetic Versions of Nested Categorical Data in the Presence of Impossible Combinations

(Wang, Q., Akande, O., Hu, J., Reiter, J.P. and Barrientos, A.,)

### AWARDS

Presidential Special Scholarship for Innovation & Dev. 2013 - 2015

Federal Government of Nigeria Full funding for masters degree

University of Lagos Endowment Scholarship Program 2009 - 2010

Award for first class students

### TEACHING TRAINING

Duke Certificate in College Teaching Program

2019

Professional Service

Journal Reviews: Demographic Research

| University<br>Service        | Student Mentor for incoming Ph.D. students  Department of Statistical Science, Duke University      | 2018        |
|------------------------------|---|-------------|
|                              | ASA DataFest@Duke Co-organizer and Instructor<br>Department of Statistical Science, Duke University | 2017 - 2019 |
| Professional<br>Affiliations | American Statistical Association<br>Society for Political Methodology                               |             |