

Jared Bailey

•1518 Clifton Rd NE • Atlanta, GA 30322 • (470) 781-4033 • jared.bailey@emory.edu

Education

- **Emory University**; Atlanta, GA **May 2027**
PhD in Environmental Health Sciences
- **Morehouse School of Medicine**; Atlanta, GA **May 2023**
Master of Public Health
- **Morehouse College**; Atlanta, GA **May 2021**
Bachelor of Science in Biology,
Minor: Public Health

Academic Projects

Emory University

Associations Between Spatial Socioeconomic Polarization and Lead Exposure Burden in Maternal Cohorts **January 2024**
LEADER Lab Trainee

- Employed spatial research methods to investigate the relationship between neighborhood socioeconomic status and heavy metal exposure in maternal blood samples.
- Examined the inflammatory response pathway induced by lead exposure, detailing the biochemical and cellular mechanisms through which lead (pb) interacts with biological systems and activates inflammatory pathways.
- Utilized spatial mapping indices to assess neighborhood socioeconomic status, providing nuanced insights into how these factors influence lead exposure risks.
- Contributed to addressing critical public health issues by examining the impact of lead exposure on maternal health outcomes, informing targeted interventions and policies to protect maternal and fetal health.

Comprehensive Analysis of Pre- and Post-Operative Population Characteristics in the PERK Study **November 2023**
Student Trainee

- Analyzed pre- and post-operative population characteristics, including demographic variables, refractive parameters, and previous health history, correlating these factors to refractive outcomes in the Prospective Evaluation of Radial Keratotomy study.
- Used SAS 9.4 to perform robust statistical analyses, correlation assessments, and multivariate analyses to identify significant associations between population characteristics and surgical outcomes, contributing crucial insights to the study.

Morehouse School of Medicine

Disparities in the Prevalence of Breast Cancer Among Women aged 18 Years and Older in the United States **August 2022**
Student Trainee

- Upon completion of the literature review, Health Information National Trends Survey was utilized to examine self-reported breast cancer. Using the literature and the dataset, exposure variables (Historical Confounders) were chosen to assess an association with their outcome variable (self-reported incidence of breast cancer) using SAS 9.4.

Association Between Smoking and Blood Lead Levels Among Adults in the United States **May 2022**
Student Trainee

- Utilized quantitative data collection methods appropriate for a given public health context to answer the quantitative research question developed. Developed audience-appropriate public health content, both in writing and oral presentation.

City of Atlanta Neighborhood Planning Unit K Grant Proposal Development **April 2022**
Student Trainee

- Facilitated grant writing process and researched funding sources for selected community-based organization.
- Administrating/planning of a full grant proposal.

Toxic Release Inventory Assessment **August 2021**
Student Trainee

- Identified management of toxic release inventory in Westside of Atlanta utilizing Health Assessments (PHAs) and Health Consultations to learn methods used in epidemiology and toxicology.

Windshield Surveillance of City of Atlanta Neighborhood Planning Unit K

August 2021

Student Trainee

- Utilized the Windshield Survey Model to identify assets, needs, and capacities in NPU K to address community health conditions and concerns.
- Identified stakeholders and proposed strategies to build coalitions that influence public health outcomes from the health condition of hypertension identified, and health intervention plan proposed.

Morehouse College

Vereen Institute Noise Pollution Atlanta Surveillance Project

May 2021

Student Trainee

- Identified environmental determinants of health in the Southside of Atlanta utilizing National Science Foundation funded and Cornell Universities Lab of Ornithology research to justify effects of noise pollution on residents.

Triple negative breast cancer among Black women in the United States and Atlanta

May 2021

Student Trainee

- Identified national and county statistics present in Atlanta, Georgia associated with levels of poverty, educational levels, late prognosis of breast cancer, and uninsured & underinsured effects.

Bonner Scholar Community Asset Mapping and Environmental Report: Southwest Atlanta

May 2021

Bonner Scholar

- Identified and presented historical and systemic variables that perpetuate systems of oppression upon marginalized communities in Vine City and English Avenue Community. Data included food deserts, poor housing infrastructure, gentrification, elevated taxes, health disparities, elevated lead levels in soil, poverty levels, and low education levels.

Mycobacterium Smegmatis Phage Annotation

May 2018

Research Assistant

- Isolated and characterized bacteriophages from local environments, annotated the genomes, and sequenced phages in the GenBank database.
- Presented research and genomics of phages that infected bacterial hosts within the phylum Actinobacteria to Morehouse College Biology Department.

Professional Experience

National Institute of Environmental Health Science (NIEHS)

May 2024-August 2024

IRTA Epidemiology Branch Fellow

- Assessing associations between hair straighteners/chemical relaxers that contain carcinogens and endocrine disrupting chemicals with cancer incidence while considering the multifactorial impact of demographic factors for study cohort data.
- Developed advanced statistical skills through data science lectures series to advance computational proficiencies such as regression analysis as applied to biomedical research through learning various statistical analysis platforms to clean, analyze, and visualize data.
- Gained expertise in Trans-NIH Metabolomics Core for general metabolomics techniques (LC/GC-MS), while conducting in-depth analysis of sample preparation and profiling of bacterial strains.
- Presentation of a poster summarizing the study's findings at the National Institute of Health Summer Poster Seminar and Epidemiology Branch Science Day Seminar

Emory University Gangarosa Department of Environmental Health Lab Rotation 2

January 2024- May 2024

Graduate Research Assistant

- Quantified chemical metabolite levels in study samples and analyzed outcomes.
- Analyzed and interpreted exposure levels and metabolite concentrations within the SAWASDEE Birth Cohort Study in Thailand, leveraging findings to assess exposure trends.
- Developed multiple directed acyclic graph models for organophosphate, pyrethroid, and organochlorines on several birth outcomes.

- Generated comparative analysis of Mt. Sinai, Columbia, Chimacos, and other birth cohorts accounting for creatinine.
- Prepared research abstracts for conference submission.

The NASA, Climate Change and Environmental Justice Project

August 2023-October 2023

Research Trainee

- Analyzed NASA satellite data spanning 2002 to 2021 from metro Atlanta counties and the City of Atlanta, to investigate changes in greenspace, extreme heat occurrences, and air pollution levels. Identified and interpreted trends, providing valuable insights into environmental dynamics over the studied period.
- Facilitated data analysis sessions aimed at proficiently disseminating scientific information, strategically incorporating multiple instances to elucidate terminology pertinent to environmental health among diverse audiences.
- Contributed to preparatory meetings involving community stakeholders, collaborating to strategize and align objectives ahead of sessions with the team.
- Collaborated with project investigators (Drs. Ekegna, Pearson, and Liu) to develop and implement targeted engagement activities to support communities experiencing environmental justice concerns in Atlanta, Georgia.

Emory University Gangarosa Department of Environmental Health Lab Rotation 1

August 2023-December 2023

Graduate Research Assistant

- Completion of a literature review on ecological momentary assessments and the health effects of extreme temperatures among historically underserved communities.
- Showcased proficiency in employing data management and statistical analysis platforms by constructing correlation matrices across domains linked to structural racism and quality of life.
- Utilized a multi-domain Structural Racism Index, combining rural, urban, and Atlanta county-level data across domains including residential segregation, education, employment, incarceration, economic status, political participation, and homeownership in Georgia counties, uncovering significant interrelationships and associations among them.

National Institute of Environmental Health Sciences FrESH Training Program

June 2023-June 2023

Research Trainee

- Assessed the impacts of a global pandemic on human exposures to environmental toxicants, unraveling the complex dynamics between public health crises and environmental health.
- Trained in novel models and approaches for assessing environmental impacts on human health, harnessing cutting-edge methodologies to understand the mechanisms linking environmental exposures to adverse health outcomes.
- Examined mechanistic inflammatory pathways connecting environmental exposures to health outcomes in vulnerable populations, including those stemming from gene-environment interactions, water pollutants, and other factors such as air pollutants, flame retardants, and pesticides.

City of Hope Comprehensive Cancer Center and Chapman University

May 2022-September 2023

Graduate Research Associate

- Facilitated Institutional Review Board training session to Community Advisory Board members of Bench to Community Initiative regarding ethics and research involving human participants.
- Completion of systematic literature review using Covidence manuscript on the best practices for effectively impacting the behavior of Black men above 45 regarding Prostate Cancer clinical trial participation.
- Completion of “Professional Grant Proposal Writing” workshop training sessions consisting of strategic planning in requests for funding, identifying diverse donors and funding, evaluations, etc.
- Identified survivorship disparities affecting African American people with breast and prostate cancer.

Morehouse College Bonner Office of Community Service

August 2021-August 2023

Program Manager

- Strategically coordinated Morehouse College annual hunger and homeless outreach event in the Westside of Atlanta with free covid and flu vaccinations, health screenings, hygiene kits, gourmet food, and clothing.
- Assisted in the design and management of the Bonner, Adams, and UPS Scholars Program for student development, in the areas of service (education, social justice, environmental sustainability, and civic engagement) and leadership development.
- Provide direction for office of community service as needed for staff and student conferences, international service trips, event logistics and preparation, events communication, and correspondence.

Satcher Health Leadership Institute: Community Health Leadership Program
Health Equity Intern

February 2022–May 2022

- Analyzed selected health issues in urban and rural communities through systematic literature review; and designed a parallel plan to adapt and implement appropriate evidence-based practices to address health disparities through intervention development.
- Developed collaborations and partnerships to identify potential funding opportunities to sustain health interventions.
- Discussed the roles and expectations of ethical leadership in promoting community health, health education, and prevention of selected health issues.
- Mentored by environmental health and climate change leaders in team development and management workshops for enhancing community health to advance health equity.

Morehouse School of Medicine Prevention Research Center

August 2021-December 2021

Association of State Public Health Nutritionists (ASPHN) Health Equity Intern

- Facilitated government and community-based partner site interviews to evaluate project and participant outcomes and solidify women's health projects.
- Utilized qualitative data analysis to evaluate partner site progress and target population outcomes.
- Created community partner and partner site deliverables which are culturally competent to target populations on minority women's rights and social justice.
- Co-author to forthcoming peer-reviewed journal on women's health.

Community Education and Training in Opioid Use Reduction (CETOUR)

February 2021-December 2021

Project Intern

- Developed a symposium series to study social determinants of health, utilizing the WHO framework correlating to mental health and opioid use disorder.
- Moderated panels and established collaborations with external organizations using a multidisciplinary educational approach for rural underserved areas.

Centers for Disease Control and Prevention (NCIP)

January 2021-May 2021

National Center for Primary Care / HIP Program

- Supported the implementation of public health programs and activities in women's rights, social justice, and equity.
- Developed and maintained collaborative relationships with community, state, and national organizations involved in women's rights efforts.
- Sustained collaborations on assigned social justice education project with community and state organizations and specialists.

National Science Foundation & Cornell University Lab of Ornithology Noise Pollution Project

August 2020–June 2022

Community Science Collaborator

- Conducted research on noise pollution in low socio-economic areas and noise decibel rates.
- Co-created and presented research metrics future scientific studies and community asset mapping.

Awards/Scholarships

- T32 NIH Trainee Appointment **October 2023**
- Centennial Scholar Fellowship **March 2023**
- Initiative for Maximizing Student Development (IMSD) Fellowship **March 2023**
- NIH Ruth L. Kirschstein National Research Service Award (NRSA) **August 2023**
- ACGA and Alabama A&M University's Small Farms Research Center Scholarship **October 2022**
- Fulton-Dekalb Hospital Authority Merit Scholarship **August 2022**
- Satcher Health Leadership Institute CHLP Certification **May 2022**
- Friends of Valorie Montgomery Scholarship **August 2021**
- Arthur R Collins Scholarship **August 2021**
- FLA Outstanding Alumni Award **November 2021**
- HHS Public Service "Star" Award **May 2021**
- Excellence in Leadership Award, Morehouse BOCS **May 2021**
- Scholar of the Year Award, Morehouse Bonner Office of Community Service **May 2019**

- Odyssey Scholar of the Year Award **February 2019**
- Ferguson Fund Scholarship **May 2018**
- Georgia Teen Money Smart Scholarship **April 2018**
- Georgia Legislative Black Caucus (GLBC) Young Scholars Scholarship Award **March 2018**
- Bertram and Corella F. Bonner Scholarship, Morehouse College **August 2017 to May 2021**
- SPCC Atlanta Area Health Education Center Project InstaLIFE Scholarship **June 2017**

Teaching Experience

Emory University, Lecture: "Evaluating the Link Between Chemical Hair Product Exposure and Non-Hormonal Cancer Incidence: Insights into Chemical Toxicology and Epidemiology" **December 2024**
Guest Lecturer

Emory University, Course: Human Toxicology **August 2024-December 2024**
Teaching Associate

Emory University, Summer Opportunities for Academic Research Program **May 2024-August 2024**
Foundations of Public Health, Course Instructor

Spelman College, Lecture: "Perspectives of Environmental Health (An Exposomics Approach)" **May 2024**
Guest Lecturer

Emory University, Course: Environmental Justice **January 2024-May 2024**
Teaching Assistant

Morehouse College, Emerging Leaders Program **August 2021-May 2023**
Course Instructor

Community Engagement

Rollins School of Public Health Career Development Ambassador **December 2023- Present**

- Promote student leadership, professional development, and career readiness through mentorship, panel discussions, and other outreach initiatives.
- Educate Rollins students on professionalism and working with Office of Career Development to produce a series of guidelines for students' professionalism.
- Serve as peer-advocate by linking the professional needs of Rollins students with the resources, educational programming, and professional services provided by the Office of Career Development.

Morehouse School of Medicine *Festival of Lights* **October 2021–October 2023**

- Honoring the life of Catherine Johnston through forming partnerships, health screenings, and community engagement.

Berean Seventh Day Adventist Church Food Bank **August 2021-May 2023**

- Preparation of frozen and canned goods for community members in the metro Atlanta area.

Mother Hubbard Daycare Center and Kindergarten **December 2021–May 2023**

- Facilitation of socio-emotional learning activities with kindergarten through eighth grade students.
- Provide peer mentorship to students.
- Host Thanksgiving and Toy Drives for less fortunate children in the program.

Morehouse School of Medicine HEAL Clinic **August 2019-May 2023**

- Student Volunteer, Morehouse School of Medicine HEAL Clinic
- Secured collaboration of on-site testing for HIV/AIDS and Glucose Readings.

Public Speaker, Urban Asset Builders **August 2017-August 2020**

- Motivational speaker to teens on the importance of financial/ health education at Federal Reserve Bank of Atlanta.

- Scholarship Ambassador to multiple banks and non-profit organizations.
- Spoke to various bank CEOs to increase the importance of financial literacy among youth and adolescents.

Bonner Scholar, Morehouse College Bonner Office of Community Service

August 2017-May 2021

- Presented research on health disparities in Atlanta and nationally in the United States.
- Identified ways to educate citizens and community partners on public health.
- Led international service trip to Dominican Republic for environmental change.
- Service trip to Sapelo Island for environmental change and injustice emersion.
- Mentor and Peer-Assisted Learning Instructor for youth.
- Successful proposal for scholarship funds at Fulton Leadership Academy.

Volunteer, Westside Volunteer Corps

October 2017- October 2021

- Involved in Westside Revitalization Initiative Service Days.
- Community Cleanup in English Avenue, Vine City and Just Us Neighborhoods.

Volunteer, Raising Expectations, Inc.

August 2017-May 2019

- Mentored middle and high school students.
- Led youth to revitalize Westside Atlanta through community service.
- Organized sessions on the importance of scholarship and budgeting.

Metro Atlanta Urban Farm

August 2013-Present

- Participated in food drives across the Metro Atlanta Area at health clinics.
- Educated community members on environmental sustainability.
- Invested in community food garden plots.
- Evaluated quality of soil and well-water.

Leadership/ Involvement

Gangarosa Department of Environmental Health, Executive Committee Liaison

August 2024-Present

- Attends curriculum meetings, communicates student concerns, collaborates on curriculum improvements, and represents EHS PhD students on the admissions committee, ensuring transparency in the admissions process.

Social Action Events Committee, Student Government Association

August 2022- May 2023

- Coordinated events that integrate the essences of public health and community engagement.

Board of Directors, Odyssey Atlanta

March 2021-Present

- Lead on college roadmap development for success model.
- Regulated program educational developmental programs.
- Voted on program financial and administrative work.

Advisory Council, Fulton Leadership Academy, Atlanta, Georgia

May 2021-May 2024

- Supporting the implementation of school-wide policies and procedures.

Bonner Scholar Program, Morehouse College

Senior Bonner Intern

May 2020-May 2021

- Coordinated service efforts with RSOs on campus and in the community.
- International/National representative for Morehouse Bonner Program at conferences and service projects.
- Profiled in Bonner Network/Internationally for exceptional leadership at Morehouse College.

Compliance Officer

May 2019-May 2020

- Updated and critique policies and procedures of the program.
- Proposed external organization collaboration and coordinates program.

Medical Coordinator, It's on The House event, Morehouse College

October 2019

- Secured partnerships with clinics to ensure on-site testing.
- Coordinated the delivery of medical care to homeless.
- Developed policies and procedures for medical work done.

Marketing Coordinator

January 2018-May 2018

- Provided information to AUC regarding service events through campus outreach.
- Highlighted important Bonner Initiatives via social media.

Presentations

- Jared Bailey, Lawrence Blumer (2021, May). Host-linked soil viral ecology along a permafrost thaw gradient. *Nature Microbiology* 16 July 2018 Joane B.Emerson, Simon Roux, Jennifer R. Brum, et al
- Jared Bailey, Latrice Rollins (2021, December). Maternal Mortality and Morbidity: Evaluating Nutrition and Health Education Outcomes. *Association of State Public Health Nutritionist* 04 December 2021
- Bailey, J., Ericson, M., Tomlin-Harris, T., Galloway, D., Dawkins-Moultin, L., Llanos, A.M., Treviño, L., Montgomery, S., Tete, DK. (2023). Black breast cancer survivors' sociocultural perspectives of beauty, and use of personal care products containing endocrine disrupting chemicals. 35th Annual Dr. Curtis L. Parker Student Research Symposium at Morehouse School of Medicine, Atlanta, GA)
- SABCS Bailey, J., Ericson, M., Tomlin-Harris, T., Galloway, D., Dawkins-Moultin, L., Llanos, A.M., Treviño, L., Montgomery, S., Tete, DK. (2022). Black breast cancer survivors' sociocultural perspectives of beauty, and use of personal care products containing endocrine disrupting chemicals. San Antonio Breast Cancer Symposium, San Antonio, TX.
- J Bailey, E White, C Ekenga (2024) Structural Racism Indicators and Environmental Hazards in Georgia, American Public Health Association, Minneapolis Minnesota

Publications - In Preparation

- J Bailey, M Ericson, T Tomlin-Harris, D Galloway, L Dawkins-Moultin, A A.M. Llanos, L Treviño, S Montgomery, D Tete (2022) Black Breast Cancer Survivors' Sociocultural Perspectives of Beauty, and Use of Personal Care Products Containing Endocrine Disrupting Chemicals. City of Hope Comprehensive Cancer Center
- L Rollins, Tiara Giddings, Dana Brewster, Jared T. Bailey, Nadiyah Bunzy, and Abieyuwa Okoro (2021) Strengthening State Partnerships to Address Maternal Mortality, Nutrition Disparities, and Father Engagement
- Bailey, L Blumer, A Peister (2018). Mycobacterium smegmatis mc²155 (Junebug). *The Actinobacteriophage Database, PhagesDB*. Morehouse College

Research Experience

City of Hope Comprehensive Cancer Center – Disparities in Cancer Survivorship Lab

Research Assistant

- Systematic literature review using Covidence manuscript on the best practices for effectively impacting the behavior of Black men above 45 regarding Prostate Cancer clinical trial participation.
- Manuscript in progress of "Disparities in the Prevalence of Breast Cancer Among Women aged 18 Years and Older in the United States"

Howard Hughes Medical Institute: Science Education Alliance-Phage Hunters Advancing Genomics & Evolutionary Science Program

Research Assistant

- Conducted research on nonpathogenic viruses that were isolated and purified and later sequenced at the University of Pittsburgh.
- Presented research on Virus Insertion into Mycobacterium Smegmatis to the Department of Biology at Morehouse College

Additional Skills

Computer

- Microsoft Office Suite (Word, PowerPoint, Excel) & Social Marketing
- Statistical Analysis System 9.4

- Statistical Package for the Social Sciences
- R Studio

Research

- Data entry & Analysis (GenBank)
- Qualitative and quantitative data entry

Certifications/Workshops

- Workshop Series : Multi-Omics Data Integration in Human Exposome Studies
- Mastering Immunology: A Complete Course
- Foundations of Cancer Biology
- Basic Pharmacology
- Foundations of Medical Toxicology
- Essentials of Pharmacology and Toxicology
- Pharmacology Master Course: Medical Metabolism
- Produce Safety Alliance Growers Training Certification
- Apple Teacher & Swift Playgrounds
- First Aid CPR AED Program
- VETO Violence CDC Training
- Adverse Childhood Experiences CDC Module Training
- Mental Health First Aid Certification
- Human Research - Social and Behavioral Research Investigators and Key Personnel Certification
- Covid-19 Contact Tracing
- Human Research – IRB Members Stage Two Certification
- Grants Training Center Professional Grant Proposal Course Completion