

# **Bertram L. Melix**

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<https://blm17e.github.io/Portfolio/>

## **EDUCATION**

### **Ph.D. Candidate, Florida State University, 2019-Present**

Supervisor: Dr. Christopher K. Uejio

Expected completion: June 2024

### **M.S., GIS, Florida State University, 2018**

### **B.A., History, Columbus State University, 2016**

## **RESEARCH INTERESTS**

**Methods:** GIS; Spatial Statistics; Bayesian Modelling; Population Analytics

**Applications:** Public Health; Neighborhoods and Health; Social Determinants of Health;

Climate Gentrification

## **PUBLICATIONS**

- Bertram L. Melix and Christopher K. Uejio. *In Review*. “Evaluating Small Area Differential Privacy Life Expectancy.”
- Wong, Sandy, C.S. Ponder, and Bertram Melix. 2023. “Spatial and Racial Covid-19 Disparities in U.S. Nursing Homes.” *Social Science & Medicine*.
- Bertram L. Melix, April Jackson, William Butler, Tisha Holmes, and Christopher K. Uejio. 2022. “Locating Neighborhood Displacement Risks to Gentrification Pressures in Three Coastal Counties in Florida.” *The Professional Geographer*.
- Bertram L. Melix, Christopher K. Uejio, Kristina W. Kintziger, Keshia Reid, Chris Duclos, Melissa M. Jordan, Tisha Holmes, and Jessica Joiner. 2020. “Florida Neighborhood Analysis of Social Determinants and Their Relationship to Life Expectancy.” *BMC Public Health*.
- Rees, Amanda and Bertram Melix. 2019. “Landscape Discourses and Community Garden Design: Creating Community Gardens in One Mid-Sized Southern US City.” *Studies in the History of Gardens & Designed Landscapes*.

## **REPORTS**

- McCreary T, Miltonette C, Jackson A, Rose A, Melix B. 2023. Can 8 Wait? A Review of Use of Force Policies in Florida and Perspectives on their Effectiveness. Leroy Collins Institute at Florida State University.
- Butler W, Holmes T, Jackson A, Lange Z, Melix B, Milordis A. 2022. Addressing climate driven displacement: planning for sea level rise in Florida's coastal communities and affordable housing in inland communities in the face of climate gentrification. Florida State University.
- Amy Khare, Leila Fiester, Sherise McKinney, Alexandra Curley, April Jackson, and Bertram L. Melix. 2022. "From the Ground Up: Housing as a Catalyst for Community-Driven Redevelopment of Chicago's Majority-Black Woodlawn Neighborhood." National Initiative on Mixed-Income Communities (NIMC).

## **APPOINTMENTS**

### **Internship - Florida Department of Health, 2023**

- Produced 5-year life expectancy estimates for census tracts for the years 2016-2020
- Compiled and updated an Economic Hardship Index and Walkability Index
- Examined and aggregated emergency room department visits data from AHCA to FL zip codes

### **Graduate Research Assistant, 2022**

- Constructed a zero inflated negative binomial regression model to investigate nursing home characteristics correlated with resident COVID-19 cases and deaths
- Assessed geographic and racial inequalities in nursing home resident COVID-19 cases and deaths

### **Graduate Research Assistant, 2021**

- Collected ACS data for a study mapping police use-of-force policies in Florida
- Developed an ArcGIS Dashboard to display and visualize a variety of maps and figures detailing information related to police use-of-force incidents in Florida

### **Graduate Research Assistant, 2020**

- Developed a displacement risk index to categorize neighborhoods as high, medium, or low displacement risk from coastal migrants moving inland to evade sea level rise in Pinellas, Duval, and Miami-Dade counties
- Composed a principal components analysis to operationalize factors that predispose neighborhoods to displacement risks

### **Graduate Research Assistant, 2020**

- Collected a range of housing, demographic, and socioeconomic data to map and visualize changes over time in the Woodlawn neighborhood in Chicago

### **Graduate Research Assistant, 2018**

- Researched and constructed spatial regression models to analyze variability in life expectancy rates and their relationship to the social and medical determinants of health

### **Grant Recipient, 2016**

- Identified and mapped community gardens in Columbus, Ga and spoke with gardeners to learn about successful design strategies and life cycles of community gardens

### **Undergraduate Research, 2016**

- Designed and produced a heritage tour map for the reopening of Pasaquan, a visionary arts landscape in Georgia

## **PRESENTATIONS**

- Paper presentation “Evaluating Small Area Differential Privacy Life Expectancy” at the International Medical Geography Symposium in the Geographies of Risk and Health: From Data Integrity to Care Practices Session – 2024
- Presented “Mapping the Intersection: Average Wait Time for Housing Vouchers in Relation to Minority Household Percentage” to the Dragon's Den at the CAnD3 Keynote Address– 2024
- Presented “5-Year Life Expectancy Estimates for Florida Census Tracts (2016-2020)” to the Technical Advisory Group organized by Environmental Public Health Tracking Florida Department of Health - 2024
- Presented “Mapping Sea Level Rise Impacts on Affordable Housing in Duval County, Florida” to the Shark Tank at Florida State PopAging Data Viz Workshop - 2023
- Presented research “Bayesian Methods to Manage and Reduce Differential Privacy Uncertainty” at the American Association of Geographers (AAG) - 2023
- Presented research “Florida Neighborhood Analysis of Social Determinants and their Relationship to Life Expectancy” to members of the FL BRACE Program
- Presented research “Florida Neighborhood Analysis of Social Determinants and their Relationship to Life Expectancy” to members of Florida Department of Health’s HEPC Data and Assessment Subcommittee
- Authored a poster and research paper for SEDAAG in which we discuss strengths of combining methodologies from public history and public participation GIS

## **GRANTS**

Equal Opportunity Under Differential Privacy? An Examination of the Placement OF Early Voting Sites in Florida

Small Grant Program, Florida State University, 2024 (\$5,000)

Role: Co-principal Investigator

Celebration of Community Gardening in the Columbus Region

Columbus Food Oasis and Georgia Organics Grant Recipient, 2016 (\$800)

Role: Principal Investigator

## **FELLOWSHIPS**

Consortium on Analytics for Data-Driven Decision Making (CAnD3) Fellow (2023 – 2024)  
(\$5,000 CAD)

## **RELEVANT SKILLS**

- Proficient and competent in the use of ArcGIS programs, QGIS, Python, and R
- Trained in creating and editing geospatial data, and working with and visualizing spatial data in multiple programming environments
- Skilled in applying both spatial and non-spatial statistical techniques, including frequentist and Bayesian approaches, for public health applications

## **NONDEGREE EDUCATION AND TRAINING**

Short Course. Florida State PopAging DataViz Workshop. Fall 2023

Short Course. McGill Summer Camp. Introduction to R. Summer 2023

Short Course. UC Berkeley Workshop in Formal Demography. Summer 2022

## **TEACHING EXPERIENCE**

**Instructor of Record, Florida State University, 2019-Present**

Courses: World Regional Geography, Geographic Information Systems

**Teaching Assistant, Florida State University, 2018-Present**

Courses: Map Analysis, Human Geography, Geographic Information Systems, GIS & Health

## **RELEVANT COURSES**

- **GIS5400:** GIS Social Sciences (2018 Spring)
- **GEO5934:** Advanced Statistics (Spring 2019)
- **GIS5122:** Applied Spatial Statistics (Spring 2019)

- **STA5198:** Epidemiology for Statisticians (Fall 2019)
- **STA5635:** Machine Learning (Fall 2019)
- **BSC5936:** Quantitative Methods 2 (Spring 2020)
- **CAP5771:** Data Mining (2020 Fall)
- **GEO5809:** Medical Geography (2020 Fall)

### **SERVICE**

- Graduate Student Representative on Quantitative Geographer Hiring Committee
- Fellows' Representative for the Substantive Committee, CAnD3 Governance Committee
- Referee *BMC Public Health* and *CDC Morbidity and Mortality Weekly Report*

### **OTHER PROFESSIONAL EXPERIENCE**

- GIS Consultant, *Kurt Spitzer & Associates*, Tallahassee, Florida, USA, (2021-Present)  
*Job Description:* Produces redistricting plans for Florida's cities and counties

### **PROFESSIONAL SOCIETIES**

- Member, Graduate Researchers of Geography
- Member, American Association of Geographers (AAG)

### **PERSONAL INFORMATION**

**Born:** Brooksville, Florida, USA

**Citizenship:** USA