

Clayton Buck

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PROFESSIONAL SUMMARY

Data analyst and demographic researcher with expertise in statistical modeling, data visualization, and policy analysis. Proficient in SAS, Python, and Tableau, with experience in survey design, instrument testing, data management across the survey life cycle, demographic trend analysis, and data visualization. Extensive background in public sector research and government data analysis, with passion for leveraging quantitative social science research to advance equity. Seeking opportunities in data analysis, policy research, social science research, statistical analysis, and data visualization.

EDUCATION

Ph.D. in Sociology (Expected 2026) – University of Maryland, College Park

M.A. in Sociology (2020) – University of Colorado Denver

B.A. in Sociology (2017) – Metropolitan State University of Denver

SKILLS & TECHNICAL PROFICIENCIES

Data Analysis & Visualization: SAS, Python, Tableau, Stata, R, Microsoft Office

Statistical Modeling: Regression analysis, multilevel modeling, time-series analysis

Demographic & Policy Research: U.S. Census data (ACS, SIPP, CPS, decennial), social determinants of health

Survey Research & Reporting: Data cleaning, trend analysis, report writing, creating interactive data visualizations in Tableau

Soft Skills: Team collaboration, public speaking, project management, policy communication

PROFESSIONAL EXPERIENCE

United States Census Bureau – Suitland, MD

Survey Statistician; Fertility and Family Statistics Branch (July 2021 – Present)

Survey Design and Data Collection

- Design and manage data collection instruments (CAPI, CATI, internet) for large-scale federal surveys, ensuring data integrity and quality control
- Recommend review process improvements to enhance survey efficiency and reduce potential biases.

Statistical Analysis & Modeling

- Conduct statistical analyses, including sampling design, estimation, and imputation, ensuring data accuracy and consistency using SAS and Python
- Apply double-programming techniques to validate coding procedures and to improve the reliability of estimates

Data Visualization & Reporting

- Create interactive data visualizations using Tableau, ArcGIS, and other tools, improving public engagement and data accessibility
- Utilize website analytics to optimize the presentation of various data products, ensuring user-friendly formats and to innovative public data dissemination strategies for broad audiences.

Policy & Social Research

- Analyze survey and demographic data to support program evaluation, policy decisions, and funding allocation.
- Provide data-driven insights on population trends, disparities, and socioeconomic factors affecting key demographic groups.

Government Data Management and Compliance

- Manage variables from complex federal datasets (e.g., ACS, CPS) while ensuring compliance with data security and confidentiality laws (Title 13, Title 26).
- Identify data inconsistencies, biases, and methodological issues, recommending solutions to improve data integrity and usability.

Survey Lifecycle Expertise

- Experienced in all phases of the survey lifecycle, including frame development, data editing, weighting, and final dissemination.
- Suggest improvements to data collection, processing, and review workflows, enhancing efficiency and accuracy.

Technical Writing & Communication

- Authors technical reports, methodological papers, and data documentation for internal and external audiences.
- Serve as a subject matter expert on demographic research, including fertility, living arrangements, and family formation and dissolution trends.

Survey Question Implementation

- Worked as part of a select team of analysts to develop and test a sexual orientation question for ACS
- Coded and analyzed survey responses, ensuring accurate documentation and methodological rigor through double-programming in SAS.
- Developed a codebook and standardized coding scheme for the question, facilitating consistent data processing.

Programming and Data Modernization

- Led efforts to introduce Python coding at the Census Bureau, developing guides on VS Code setup, remote server connections, and Python fundamentals.
- Assisted in migrating legacy SAS code to Python, improving data review processes and production efficiency.

University of Maryland – College Park

Graduate Research Assistant/Teaching Assistant (August 2020 – December 2023)

- **Graduate Research Assistant for Dr. Collin Mueller**
 - Conducted quantitative research on healthcare access, structural inequalities, and demographic trends using data from the Behavioral Risk Factor Surveillance Survey and ACS data.
 - Wrangled and cleaned data from various sources and developed statistical models to analyze state-level policy impacts on various health outcomes and associated disparities along sociodemographic axes of inequality.
- **Graduate Research Assistant for Dr. Long Doan**
 - Assisted with instrument development for the collection of primary survey data and data from time use diaries
 - Cleaned primary data from Amazon MTurk and Qualtrics for use among a team of researchers for the project Assessing the Social Consequences of COVID-19, leading to several publications
 - Transcribed voice recordings of police officers during virtual reality encounters to assess racial and gender-based biases
- **Graduate Teaching Assistant for Dr. Liana Sayer**
 - Course: SOCY225: Gendered Jobs: How and Why Do They Differ?
 - Graded assignments and group projects; provided comprehensive feedback to undergraduate students; offered office hours to go over course material

University of Colorado Denver

Research Assistant/Teaching Assistant (August 2018 – Summer 2020)

- Analyzed survey data to assess housing recovery trends and policy implications.
- Collaborated with an interdisciplinary team on disaster recovery and demographic shifts.
- Assisted in grading and lecturing for undergraduate and graduate-level social statistics courses
- Graded assignments and provided meaningful feedback to students

SELECTED PUBLICATIONS

United States Census Bureau Publications

- Anderson, L. & **Buck, C.** (2023). “[State-Level Analysis of Living Arrangements of Grandparents and Grandchildren.](#)” U.S. Census Bureau. Population Association of America Conference.
- Anderson, L. & **Buck, C.** (2024) “[Who Are American Indian and Alaska Native Grandparents?](#)” U.S. Census Bureau. Population Association of America.
- Anderson, L., Hayward, G., and **Buck, C.** (2024). “[Coresident Grandparents and Their Grandchildren: 2021.](#)” U.S. Census Bureau Report.
- **Buck, C.**, Hemez, P., and Anderson, L. (2024). “[How Does Your State Compare with national Marriage and Divorce Trends?](#)” U.S. Census Bureau. America Counts Story; [Tableau Data Visualization.](#)
- Hemez, P., **Buck, C.**, and Anderson, L. (2024). “[Four in Five Family Households with a Householder Ages 35-39 Included a Child Under 18 in 2024.](#)” U.S. Census Bureau. America Counts Story; [Tableau Data Visualization.](#)

Academic Journal Articles

- Amerikaner, L., **Buck, C.**, Moore, R., Martinez, J., & Mueller, C. (2025). Administrative burdens as a family affair: Navigating racialized safety-net systems post-welfare reform. *Journal of Marriage and Family*, 1–24. <https://doi.org/10.1111/jomf.13064>
- Yan, H. X., Sayer, L. C., Negraia, D. V., Rinderknecht, R. G., Doan, L., Drotning, K. J., Fish, J. N., & **Buck, C.** (2022). Mothering and Stress during COVID-19: Exploring the Moderating Effects of Employment. *Socius*, 8. <https://doi.org/10.1177/23780231221103056>