

# Casey F. Breen

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## ACADEMIC POSITIONS

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2023– Senior Postdoctoral Fellow in Computational Social Science, University of Oxford  
Leverhulme Centre for Demographic Science  
Department of Sociology  
Non-stipendiary Research Fellow, Nuffield College

## EDUCATION

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2023 Ph.D., Demography, UC Berkeley  
Committee: Joshua R. Goldstein (chair), Dennis M. Feehan, Ayesha S. Mahmud, Christopher Muller

2021 M.A., Biostatistics, UC Berkeley

2019 M.A., Demography, UC Berkeley

2016 B.A., Economics (Mathematics minor), Pomona College

## RESEARCH AREAS

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Health and Mortality Disparities, Social Networks, Quantitative Social Science

## PUBLICATIONS

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2023 **Casey F. Breen**, Maria Osborne, Joshua R. Goldstein. “[CenSoc: Linked Administrative Mortality Records for Individual-level Research](#).” *Scientific Data*. 10(1):802. doi: 10.1038/s41597-023-02713-y.

2023 Joshua R. Goldstein, Maria Osborne, Serge Atherwood, and **Casey F. Breen**. “[Mortality Modeling of Partially Observed Cohorts Using Administrative Death Records](#).” *Population Research and Policy Review*. 42(3):36. doi: 10.1007/s11113-023-09785-z. [[open access](#)] [[replication](#)]

2023 **Casey F. Breen**. “[Later-life Shifts in Ethnoracial Self-Identification: Evidence from Social Security Administrative Data](#).” *Population Research and Policy Review*. 42(1):10. doi: 10.1007/s11113-023-09764-4. [[open access](#)] [[replication](#)]

2022 **Casey F. Breen**, Ayesha S. Mahmud, and Dennis M. Feehan. “[Novel Estimates Reveal Subnational Heterogeneities in Disease-Relevant Contact Patterns in the United States](#).” *PLOS Computational Biology*. 18(12):e1010742. [[open access](#)] [[replication](#)]

2022 **Casey F. Breen** and Joshua R. Goldstein. 2022. “[Berkeley Unified Numident Mortality Database: Public Administrative Records for Individual-Level Mortality](#)”

- Research.” *Demographic Research*. Volume 47, Page 111-142. [[open access](#)] [[replication](#)]
- 2022 **Casey F. Breen**, Cormac Herley, and Elissa M. Redmiles. 2022. “[A Large-Scale Measurement of Cybercrime against Individuals](#).” Pp.1–41 in *ACM Conference on Human Factors in Computing Systems (CHI)*. New Orleans LA USA: ACM. [[replication](#)]

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## UNDER REVIEW

- Casey F. Breen**. “The Longevity Benefits of Homeownership.” (Revise and Resubmit, *Demography*.) [[open access](#)]
- Casey F. Breen** and Dennis Feehan. “New Data Sources for Demographic Research”
- Casey F. Breen** and Nathan Seltzer. “The Unpredictability of Individual-level Longevity.” [[open access](#)]

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## IN PROGRESS

- Casey F. Breen**, Masoomali Fatehkia, Jiani Yan, Douglas Leasure, Ingmar Weber, and Ridhi Kashyap. “Mapping subnational gender gaps in internet and mobile adoption using social media data.”
- Casey F. Breen**, Saeed Rahman, Christina Kay, Joeri Smits, Steve Ahuka, Dennis M. Feehan “Estimating Death Rates in Complex Humanitarian Emergencies Using the Network Survival Method.”
- Casey F. Breen** and Dennis M. Feehan. “New Approaches to Collecting Data From a Respondent-Driven Sample.”
- Casey F. Breen**. “Black-White Mortality Crossover: New Evidence from Administrative Data.”
- Andrea Miranda-González, Katerine Perez, and **Casey F. Breen**. “Understanding the Hispanic Mortality Paradox: Variation by Country of Origin.”
- Joshua R. Goldstein, Guy Stecklov, and **Casey F. Breen**. “A Sibling Analysis of Longevity and African-American Names.”

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## TECHNICAL REPORTS

- 2022 **Casey F. Breen** and Maria Osborne. “An Assessment of CenSoc Match Quality.” [[open access](#)]

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## PRESENTATIONS

- 2023 **Casey F. Breen** “The Longevity Benefits of Homeownership.” Social Science and History Association Annual Conference. November 2023, Washington D.C.
- Casey F. Breen**, Maria Osborn, Joshua R. Goldstein. “CenSoc: Public Linked Administrative Mortality Records for Individual-level Research.” Social Science and History Association Annual Conference. November 2023, Washington D.C.
- Casey F. Breen**, Saeed Rahman, Christina Kay, Joeri Smits, Steve Ahuka, Dennis M. Feehan “Estimating Death Rates in Complex Humanitarian Emergencies Using

the Network Survival Method.” Quetelet Conference. November 2023, Louvain-la-Neuve, Belgium.

**Casey F. Breen** and Dennis M. Feehan. “New Approaches to Collecting Data From a Respondent-Driven Sample.” Quetelet Conference. November 2023, Louvain-la-Neuve, Belgium.

**Casey F. Breen**, Masoomali Fatehkia, Jiani Yan, Douglas Leasure, Ingmar Weber, and Ridhi Kashyap. “Mapping subnational gender gaps in internet and mobile adoption using social media data.” Oxford Digital Gender Gap Workshop. October 2023, Oxford, United Kingdom.

**Casey F. Breen**, Saeed Rahman, Christina Kay, Joeri Smits, Steve Ahuka, Dennis M. Feehan “Estimating Death Rates in Complex Humanitarian Emergencies Using the Network Survival Method.” British Society for Population Studies Annual Conference. September 2023, Oxford, United Kingdom.

**Casey F. Breen** and Dennis M. Feehan “New Approaches to Collecting Data From a Respodent-Driven Sample.” Oxford Hard-to-Reach Populations Conference. August 2023, Oxford, United Kingdom.

**Casey F. Breen**, Saeed Rahman, Christina Kay, Joeri Smits, Steve Ahuka, Dennis M. Feehan “Estimating Death Rates in Complex Humanitarian Emergencies Using the Network Survival Method.” Oxford Hard-to-Reach Populations Conference. August 2023, Oxford, United Kingdom.

**Casey F. Breen.** “The Longevity Benefits of Homeownership.” IPUMS Data-Intensive Research Conference. July 2023, Minneapolis, Minnesota.

**Casey F. Breen** and Nathan Seltzer. “The Unpredictability of Individual-level Longevity.” Population Association of America. April 2023, New Orleans, Louisiana.

**Casey F. Breen.** “The Effect of Record Linkage Algorithms on Research Results.” Population Association of America. April 2023, New Orleans, Louisiana.

2022

**Casey F. Breen** and Joshua R. Goldstein. “Berkeley Unified Numident Mortality Database: Public Administrative Records for Individual-level Mortality Research.” Social Science History Association. November 2022, Chicago, Illinois.

**Casey F. Breen.** “The Longevity Benefits of Homeownership.” Department of Sociology, Florida State University. November 2022, Tallahassee, Florida.

**Casey F. Breen** and Nathan Seltzer. “Using Machine Learning Algorithms to Predict Age of Death.” American Sociological Association. August 2022, Los Angeles, California.

**Casey F. Breen** and Dennis M. Feehan. “New Approaches to Collecting Data From a Respondent-Driven Sample.” American Sociological Association. August 2022, Los Angeles, California.

**Casey F. Breen**, Cormac Herley, Elissa M. Redmiles. “A Large-Scale Study of Cybercrime Against Individuals.” The 2022 ACM Conference on Human Factors in Computing Systems (**CHI**). May 2022, New Orleans, Louisiana. [\[video\]](#)

**Casey F. Breen.** “Mortality Consequences of Home Ownership.” Oral session at the Population Association of America. April 2022, Atlanta, Georgia.

**Casey F. Breen** and Dennis M. Feehan. “New Approaches to Collecting Data From

a Respondent-Driven Sample.” Oral session at the Population Association of America. April 2022, Atlanta, Georgia.

- 2021      **Casey F. Breen.** “Black-White Mortality Crossover: New Evidence from Linked Administrative Data.” IPUMS Data Intensive Research Conference. June 2021, virtual.
- Casey F. Breen,** Ayesha S. Mahmud, Dennis M. Feehan. “Estimating Subnational Contact Patterns using Multilevel Regression with Poststratification.” Oral session at the Population Association of America. April 2021, virtual.
- Casey F. Breen.** “Black-White Mortality Crossover: New Evidence from Linked Administrative Data.” Poster session at the Population Association of America. April 2021, virtual.
- Best Poster Award, Population Association of America

- 2020      **Casey F. Breen.** “Shifting Racial Self-Identification for the Greatest Generation.” American Sociological Association. August 2020, virtual.
- Casey F. Breen.** “The CenSoc Project.” University of Toronto Data Workshop. July 2020, virtual.
- Casey F. Breen.** “Shifting Racial Self-Identification for the Greatest Generation.” UC Berkeley Record Linkage Conference. February 2020, Berkeley, CA.

## OPEN SOURCE SOFTWARE

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- **gompertztrunc:** R package for computing mortality differentials under double truncation  
[[GitHub](#)] [[CRAN](#)]

## PROFESSIONAL EXPERIENCE

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| 2023–      | <i>Consultant</i> , CenSoc Project (PI: Joshua Goldstein)                          |
| 2018-2023  | <i>Graduate Student Researcher</i> , CenSoc Project (PI: Joshua Goldstein)         |
| 2023       | <i>Consultant</i> , IMPACT Initiatives   |
| 2022       | <i>Research Scientist Intern</i> , Meta (Demography and Survey Science Team)       |
| 2020       | <i>Intern</i> , Microsoft Research (Mentors: Elissa M. Redmiles and Cormac Herley) |
| 2018, 2021 | <i>Consultant</i> , World Health Organization                                      |
| 2016-2018  | <i>Data Analyst</i> , Institute for Social Research and Data Innovation (IPUMS)    |

## AWARDS

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| 2021 | Best Poster Award, Population Association of America                        |
| 2017 | Institute for Social Research and Data Innovation Outstanding Service Award |

## TEACHING EXPERIENCE

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| 2023 | <i>Instructor</i> , Demographic Methods, University of Oxford          |
| 2023 | <i>Tutorial Lead</i> , Demography and Population, University of Oxford |

2023	<i>Instructor, Introduction to R, University of Oxford</i>
2021	<i>Graduate Student Instructor, UC Berkeley Formal Demography Workshop</i>
2013-2015	<i>Economics Tutor, Pomona College Quantitative Resource Center</i>

## PROFESSIONAL ACTIVITIES

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### OCCASIONAL REVIEWER

*Population Studies, Demographic Research, Population Research and Policy Review, Journal of the International AIDS Society, Biometrical Journal, The Journal of Mathematical Sociology, The Journal for the Scientific Study of Religion, ACM conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO'23)*

### FIELD

Discussant, “Methods and Mortality in Historical Demography” (SSHA 2023)  
 Chair, “Measurement Issues in Historical Data ” (SSHA 2023)  
 Discussant, “Novel Methods and Data on Aging and Related Applications” (PAA 2023)  
 Discussant, “Network Methods” (PAA 2023)

### BERKELEY

Organizer, UC Berkeley Mortality Reading Group

## RESEARCH MENTORING

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POSITION	NAME	CURRENT POSITION
Research Assistant, CenSoc Project	Anna Wikle	Biostats/Epi MPH Candidate, UC Berkeley
Research Assistant, CenSoc Project	Benjamin Shapiro	Demographic Researcher, IHME
Predocctoral Researcher, CenSoc Project	Katerine Perez	Sociology Ph.D. Student, Columbia Univ.
Cal-ADAR Fellow, UC Berkeley	Ashley Quiterio	Learning Sciences Ph.D. Student, Northwestern Univ.

## LANGUAGE PROFICIENCY AND SKILLS

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- R (package development, Tidyverse), Python, SQL (Presto), ArcGIS, L<sup>A</sup>T<sub>E</sub>X, Beamer, Qualtrics.
- German (reading and oral comprehension high proficiency; intermediate speaker).

## REFERENCES

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### **Joshua R. Goldstein**

Chancellor's Professor of Demography  
Department of Demography  
University of California, Berkeley  
330 Social Sciences Building  
Berkeley, CA 94720-1980  
✉ [josh.goldstein@berkeley.edu](mailto:josh.goldstein@berkeley.edu)

### **Dennis M. Feehan**

Associate Professor of Demography  
Department of Demography  
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### **Sophia Rabe-Hesketh**

Professor of Biostatistics  
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### **Elissa M. Redmiles**

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