

The Unpredictability of Individual-Level Longevity

Flash — Socioeconomic Inequalities in Mortality

Casey F. Breen ¹ Nathan Seltzer ¹

¹University of California, Berkeley | Department of Demography

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Social Science is increasingly interested in individual-level outcomes

- I Researchers are increasingly seeking to pose and answer research questions about prediction at the individual-level (Hofman, Sharma and Watts, 2017; Salganik et al., 2020; Arpino, Le Moglie and Mencarini, 2022)

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- I Explosion in types and volume of data available + advances in computing have opened up new opportunities for prediction

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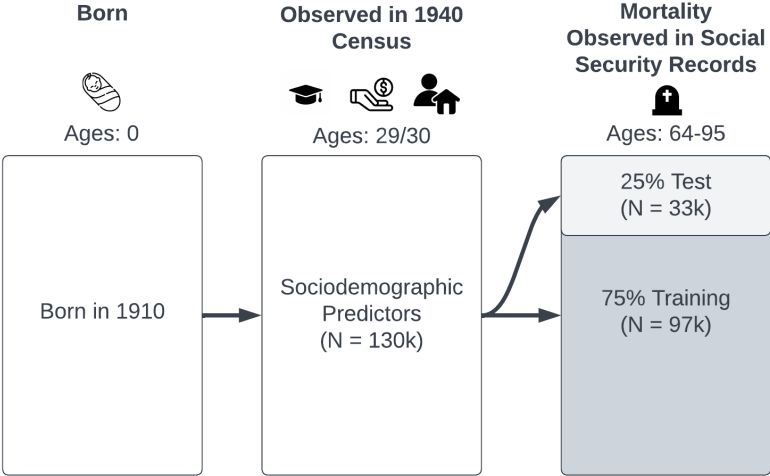
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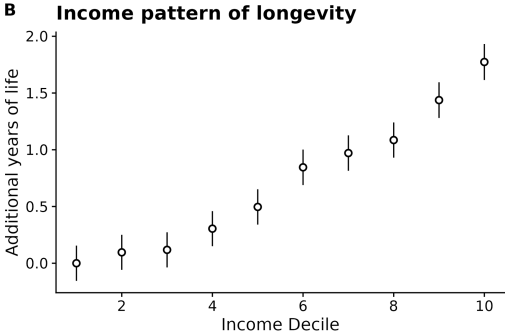
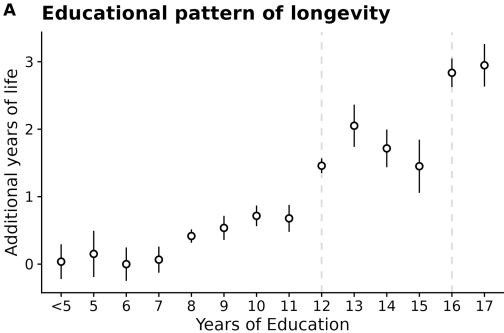
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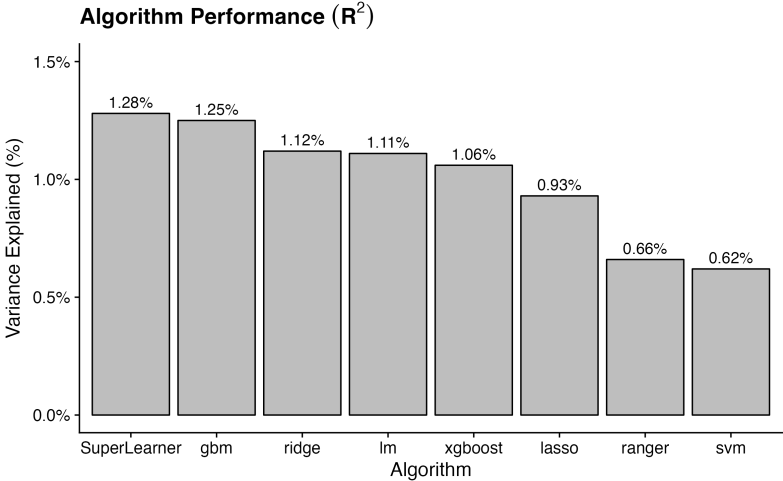
Train/test split for prediction exercise



CenSoc allows us to zoom in on “high-resolution” aggregate mortality disparities (e.g., education staircase)



Our best model only explains 1.3% of variation in age of death in test dataset



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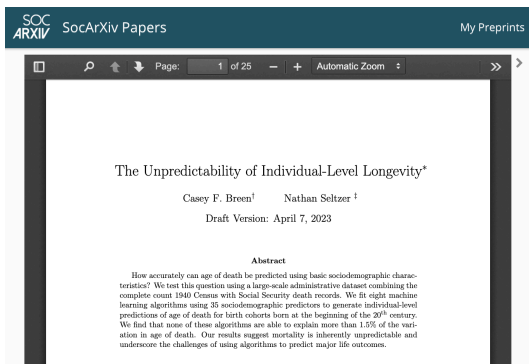
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- I Three takeaways:
 1. We can still **improve**
 2. Machine learning gives us modest gains over simple baseline model
 3. Healthy skepticism around using prediction for policy

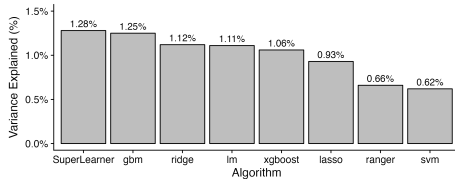
Working Paper on SocArXiv

I We would love feedback

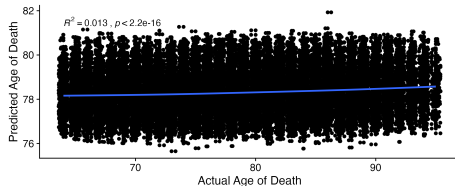


Thank You

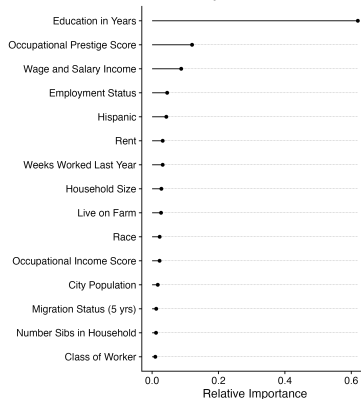
A Algorithm Performance (R^2)





B Superlearner: Predicted vs. Observed Age of Death



C Variable Importance



 caseyfbreen

 caseyfbreen@berkeley.edu

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