Understanding the Hispanic Mortality Paradox: Variation by Country of Origin

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Research question

“Hispanic Mortality Paradox”
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The “Hispanic Mortality Paradox” has been documented in the United States for the largest immigrant groups.
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Past contributions have

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- Assessed health-related outcomes or used mortality indices
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Contribution

Provide precise estimates of a mortality advantage (years lived) of immigrants from over 20 countries in Central and South America
Data: Berkeley Unified Numident Mortality Database (BUNMD)

- Deaths from Numident Social Security Administration files
- Native born and 20 immigrant groups from South and Central America (≈7M)
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Methods

Important features of BUNMD

▶ Only deaths; no exposure

▶ 1988-2005 death window:
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Important features of BUNMD

▶ Only deaths; no exposure
  ▶ Cannot use survival analysis

▶ 1988-2005 death window:
  ▶ Double truncation of distribution of ages at death
  ▶ Cox-proportional hazards models or linear regression yield biased estimates
Methods: truncated Gompertz model

\[ h_i(x | \beta) = a_0 e^{b_0 x} e^{\beta Z_i} \]

- Estimate hazard ratios by birthplace
- Assume the distribution of deaths within a cohort follows a continuous Gompertz probability distribution
- Maximum Likelihood Estimation (MLE)
- Reference group: U.S. born non-Hispanic interstate movers
- Robustness checks: Ordinary least squares
Main results: substantial variation in mortality advantage

- **Native White Movers**
  - Paraguay
  - El Salvador
  - Bolivia
  - Guatemala
  - Nicaragua
  - Colombia
  - Honduras
  - Peru
  - Mexico
  - Guyana/British Guiana
  - Argentina
  - Ecuador
  - Belize/British Honduras
  - Cuba
  - Uruguay
  - Panama
  - Chile
  - Brazil
  - Costa Rica
  - Venezuela

- **Native Born White Stayer**
  - Puerto Rico

### Mortality (dis)advantages

**Men**

**Women**
Main results: substantial variation in mortality advantage

- Mortality advantages larger than from the main sending countries
Main results: substantial variation in mortality advantage

Why? **Selective in-migration** (selective return migration, cultural factors)
Thank you

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