



Measures of Segregation for ● Studies of Population Health

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Collaborators

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Outline

- Segregation as a Public Health Issue
- Conducting Studies of the Health Effects of Segregation
 - Ecological
 - Primary Data
 - Secondary Data
 - Metropolitan-Area Effects
 - Small-Area Effects and Interactions
- Approach
 - Give General Themes and Innovations
 - Refer to Relevant Literatures

Segregation as a 'Fundamental Cause'

- Williams & Collins (2001)
 - *Public Health Reports*, v.116:404-416
 - “..cornerstone on which black-white disparities in health status have been built in the U.S.”
 - ..”no immigrant group has lived under the high levels of segregation that currently exist for the African American population...”

Segregation & Health

- Acevedo-Garcia (2003)
 - *American Journal of Public Health* v.93, n.2:215-220
 - *Infant Mortality*
 - *All-Age Mortality*
 - *Homicide Rates*
 - *Teenage Childbearing; TB; CVD; Healthy Food Availability; Pollutants*

General Approaches

- Quantitative Levels of Segregation are Related to Health
 - Behaviors
 - Outcomes
 - Health Care Utilization
- Levels of Segregation “explain” disparities
 - Black/White Disparities and Mediating Effects of Segregation Measurements

Ecological Analyses

- Aggregate Rates of Morbidity/Mortality
- Census Data
 - CensusCD© (for example)
- Stata ado file: “seg”
 - Can compute at various census levels
- Traditional Approach
 - Ecological Fallacy Concerns

Dimensions of Segregation

- Massey & Denton (1988)
 - *Social Forces* v.67(2):281-315
 - 2-Group Measures
- Reardon & Firebaugh (2002)
 - *Sociological Methodology* v.32:33-67
 - Multi-Group Measures
- US Census Bureau Summary Brief
 - *Racial and Ethnic Segregation in the United States 1980-2000* (Appendix B)

Primary Data Collection

- Individual-Level Outcomes
- Individual-Level Measures of Segregation
 - LaVeist (2003)
 - *Health Services Research* 38(6):1719-1734
 - Self-Reported Segregation along Various Dimensions

Multi-Level Approach I

● Secondary Data

- Geo-Coded to a larger Metropolitan Area
- Compute Indexes Using Block-Group or Tract-Level Data (upwards approach)
- Can Regress Health on Various Segregation Indexes
- Problems
 - General Segregation Effect
 - Who Lives in Segregated Neighborhoods?
 - Identification Problems with Race-Specific Effects

Multi-Level Approach II

- Geo-Coded Secondary Data
 - Census Tract or Block Group, e.g.
 - Downwards Approach Using Deviations from an aggregate reference-point (county, MSA)
 - “Group-Mean Centering”
 - Different From “Percent non-White”, e.g.
 - Adjusts for Distributions across aggregate areas
 - Linear Effects or Just “Segregation” Effects?
 - Can Interact with Other Variables
 - Race/Ethnic Segregation * Economic Characteristics of Tracts

Caveats

- Application to Economic Segregation
 - Equally Applicable
 - Jargowsky Measure of Neighborhood Sorting
 - Gini Coefficient
- Ethnic Group Concentration (US Census)
 - Linguistic Isolation (by language)
 - Citizenship Status (by country of origin)
 - Immigration Status (by country of origin)

Conclusions

- Any Questions?
- Contact Information
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- Good luck!