Does Distance Matter?
Amenities, Migration, and Distance from Metropolitan Areas

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Nonmetro Migration

- Turnaround migration
- How can we explain in-migration to nonmetro areas?
  - Economic reasoning?
  - Quality of Life
    - Pushed Out:
      - Less crime, better schools, white flight, etc.
    - Pulled in:
      - Natural Amenities Drive Rural Population Change (McGranahan)
      - Nonmetro Recreation Counties (Beale and Johnson)
Research Questions

► How well do natural amenities explain in-migration when controlling for other important variables?
► Is being a Nonmetro Recreation county an important predictor of migration?
► Is proximity to a metropolitan area important in attracting in-migrants?
► Are retirement destinations different?
OLS Regression

► In-migration is Dependent Variable
  ▪ More specific than pop change
  ▪ Proportion new in-migrants, Census 2000
    ◀ % lived in different county in 1995
    ◀ Range: 6% to 57%

► Study includes all nonmetro counties in lower 48 (2000)
Control Variables

- **Controls (all continuous):**
  - Census 1990
    - % Unemployed
    - % Poverty
    - Percapita Income
    - % Homeowners
    - % College Educated
    - Population
  - Census 2000
    - % serving in military
    - % enrolled in university/college
    - % in Prison
Variables of Interest

- Nonmetro Recreation County (dichotomous)
- Natural Amenity Scale
Variables of Interest

Nonmetro Recreation County (dichotomous)
Natural Amenity Scale

Distance

► Dichotomous variable for adjacency
  ▪ 1993 urban influence codes (ERS)
  ▪ Non-adjacent to any metro county = “remote”

► Proximity to Major Metropolitan Area
  ▪ Road distance in miles from centroid of each county to centroid of closest central city county
  ▪ Specific to central cities of met areas with at least 1 million people in 1990
  ▪ County centroid distance dataset created by ERS
Retirement destination counties—number of residents 60 and older grew by 15 percent or more between 1990 and 2000 due to immigration.

Source: Economic Research Service, USDA.
Results—Non-retirement destinations

► Adj R2 = 0.6478
► Strongest predictors (x-standard coeff.):
  - students, starting population, natural amenities, prisons, poverty, military, home-ownership

► Interesting Findings
  - Distance Matters
  - Recreation does NOT matter
  - Income does NOT matter

► Resulting Moran’s I = 0.2433
Results— Retirement Destinations

► Adjusted R² = 0.3962

► Strongest predictors (x-standard coeff.):
  - Natural amenities, poverty, military, starting population, students, recreation

► Interesting Findings:
  - Recreation classification matters
  - Distance does NOT matter
  - Economic variables not very important (only poverty)

► Resulting Moran’s I = 0.2110
Conclusions

► How well do natural amenities explain in-migration when controlling for other important variables?
  - Non-retirement destinations:
    - Amenities better than economic vars, education, or distance
      \[(x \text{- Std. Coeff.} = 0.017)\]
    - Increases Adj. R2 by 0.06
  - Retirement destinations
    - Amenities explains more than any other variable \[(x \text{- Std. Coeff.} = 0.022)\]
    - Increases Adj. R2 by 0.11

► Is being a Nonmetro Recreation county an important predictor of migration?
  - DO NOT explain in-migration when controlling for other factors in non-retirement destinations
  - Do explain migration in retirement destinations
Conclusions

- Is proximity to a metropolitan area important in attracting in-migrants?
  - Distance Matters! (But not that important)
    - Increase of 100 miles produces decrease of 0.42%
    - Non-adjacency decreases migrant proportion by 0.83%
    - Together, distance measures increase Adj. R2 by 0.01

- Are retirement destinations different?
  - YES!
  - Amenities and Recreation important factors
  - Distance not a factor
  - Economic variables not significant, except poverty
Questions?