## Factors associated with internal migration at the local level in the United States

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# Objective

- Several studies described associations of socioeconomic and demographic characteristics with internal migration rates in the United States
  - There is less focus on the profile and spatial distribution of internal migrants
- We investigate
  - Factors associated with internal migration in recent years
  - Local indicators of spatial association to understand clusters of internal migrants



# U.S. internal migration trends

- Internal migration declined from 20% in 1950– 1960 to 9.8% in 2019 (Frey 2019)
  - Rates are higher for better educated, whites, blacks, households without children, renters, unemployed (Molloy, Smith, Wozniak 2011; Moretti 2011)
- Neoclassical theory: people move for jobs
  - Fewer people are changing jobs (Molloy, Smith, Wozniak 2017)
  - Low-skilled Mexicans more responsive (Cadena, Kovak 2016)
- Social networks (Motel, Patten 2012)
  - Communities with higher proportions of Mexican immigrants facilitate flexibility in the labor market

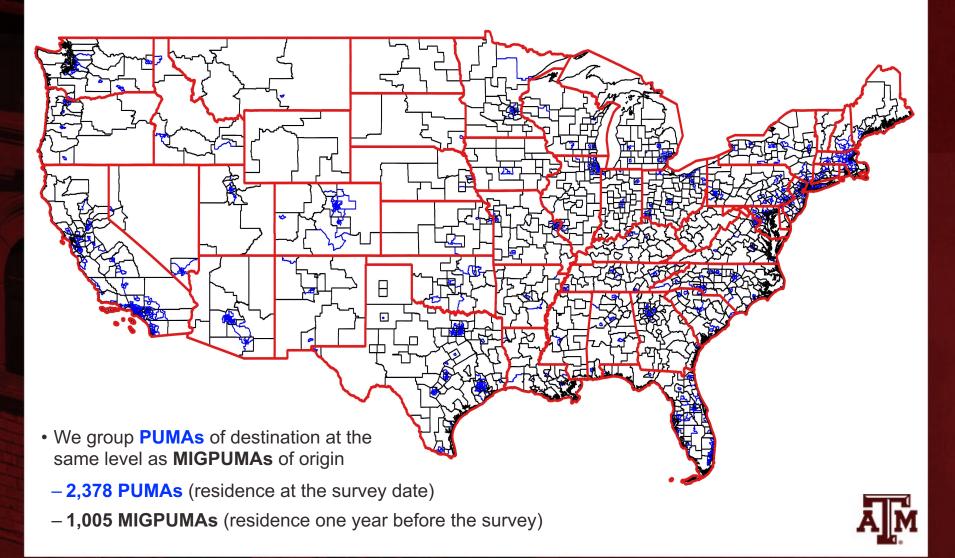


# Data and geographical areas

- We analyze spatial distributions of internal migrants with the 2005–2019 American Community Surveys
- Areas of destination (current residence)
  - Publicly available data has information on Public Use Microdata Areas (PUMAs) as the lowest level of geographic aggregation (100,000+ residents)
- Areas of origin (previous residence)
  - Data relates to PUMAs or, for confidentiality issues, groups of PUMAs (also known as MIGPUMAs)



## State, MIGPUMA, PUMA



## Methods

- Estimate factors associated with internal migration flows
  - 2005–2019 American Community Surveys (ACS)
  - Logistics models
  - Dependent variable: internal migrants vs. non-migrants
  - Sample size: 36,039,390 (only people aged 18+)
- Analysis of spatial distribution of proportion of internal migrants
  - 2019 ACS: focus on area of destination
  - Local indicators of spatial association (LISA)



# Logistic regressions

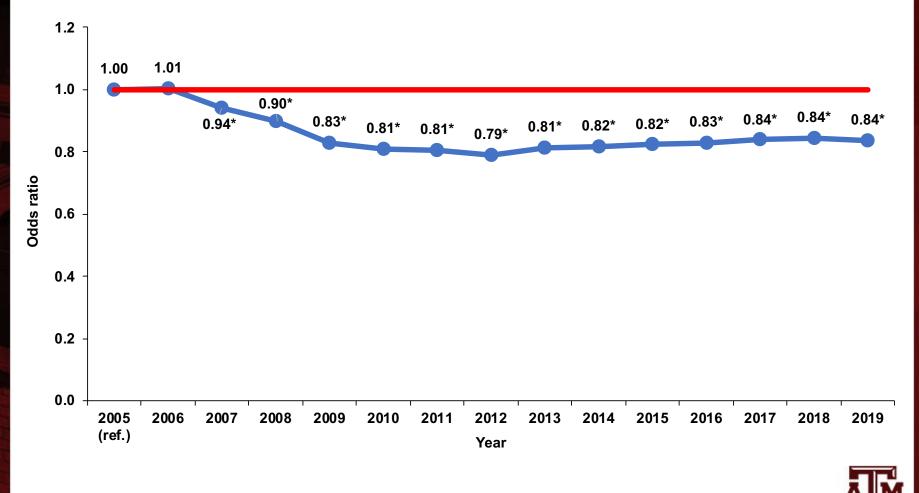
- Independent variables
  - Year
  - Sex
  - Age group
  - Educational attainment
  - Marital status
  - Citizenship
  - Nativity (foreign born, U.S. born)
  - Race/ethnicity
  - At least one child in the household
  - Homeownership
  - Region of residence one year ago

Note: Results for variables in red are presented in the following slides. Variables selected based on Molloy, Smith, Wozniak (2011, 2017).

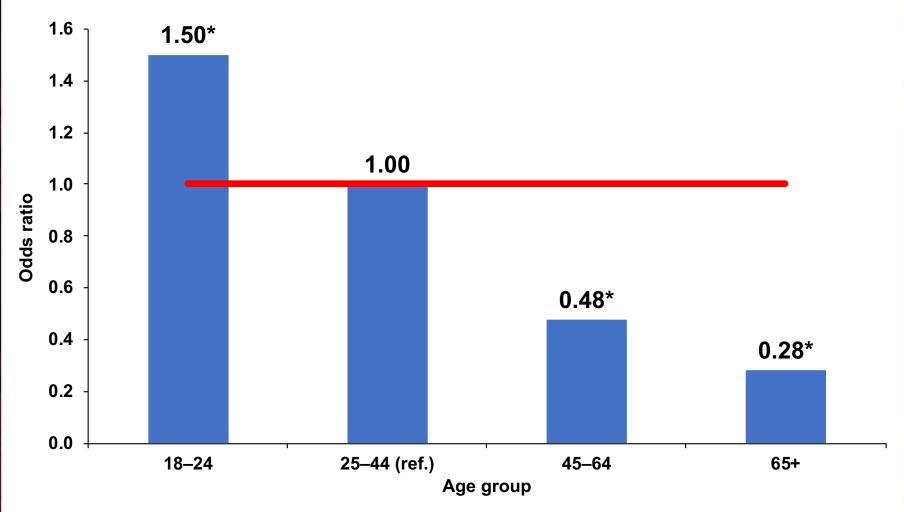
- Interaction
  - Nativity \* race/ethnicity
- For people 18+
  - In school
  - Speak English
  - Any disability
  - Occupation and employment status
  - Top 50% income



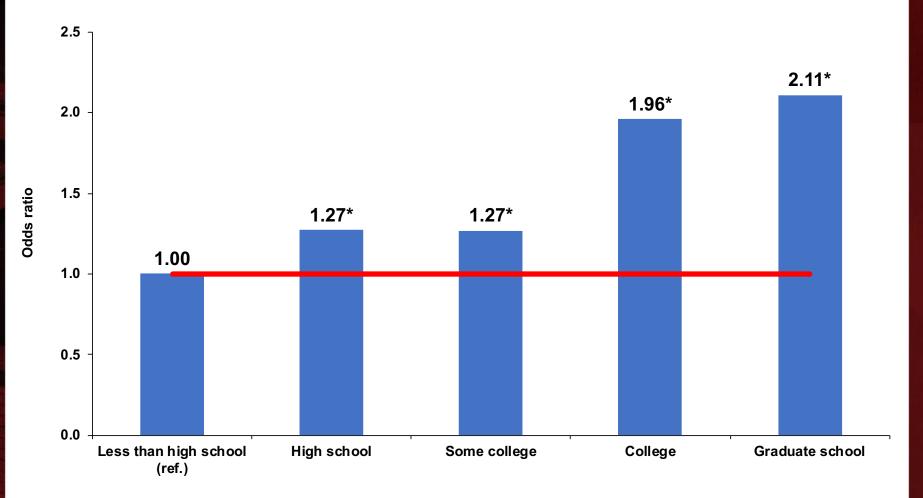
# Odds ratios of being an internal migrant by year



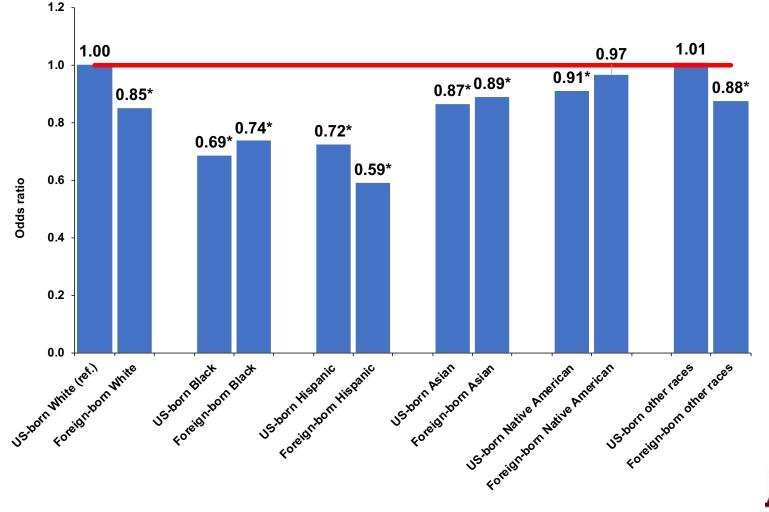
# Odds ratios of being an internal migrant by age group



# Odds ratios of being an internal migrant by educational attainment



# Odds ratios of being an internal migrant by nativity and race/ethnicity



# Analysis of spatial association

 Local indicator of spatial association (LISA) identifies spatial clusters and outliers (Anselin 1995)

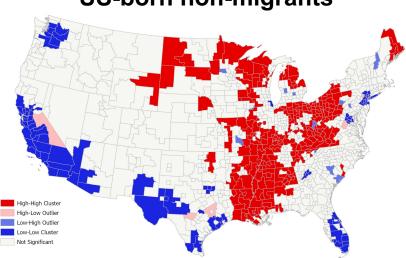
## Spatial clusters

- High-High: areas with <u>high</u> levels of a specific indicator surrounded by areas with <u>high</u> levels for that indicator
- Low-Low: areas with <u>low</u> levels of a specific indicator surrounded by areas with <u>low</u> levels for that indicator

## Spatial outliers

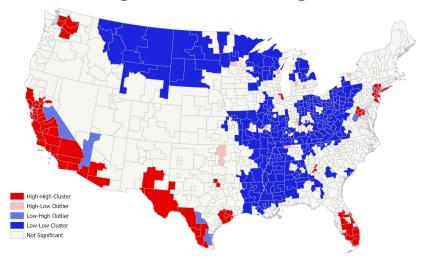
- High-Low: areas with <u>high</u> levels of a specific indicator surrounded by areas with <u>low</u> levels for that indicator
- Low-High: areas with <u>low</u> levels of a specific indicator surrounded by areas with <u>high</u> levels for that indicator

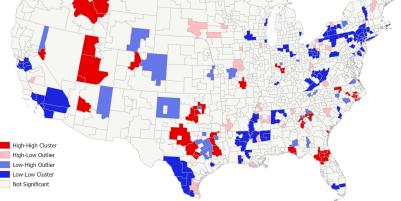
## Internal migrants are those who changed residence between 2018 and 2019



#### **US-born non-migrants**

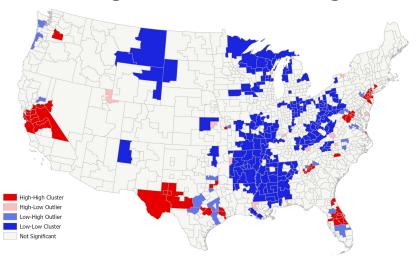
## **Foreign-born non-migrants**



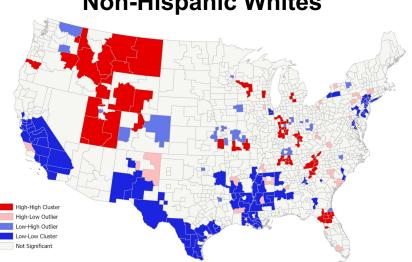


**US-born internal migrants** 

### **Foreign-born internal migrants**

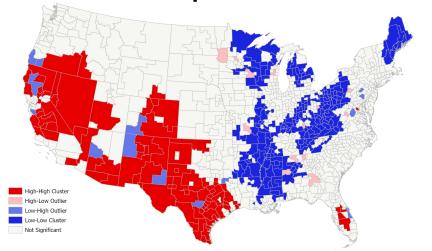


## All maps below are for internal migrants, 2018–2019

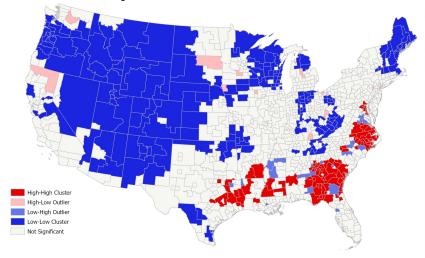


## **Non-Hispanic Whites**

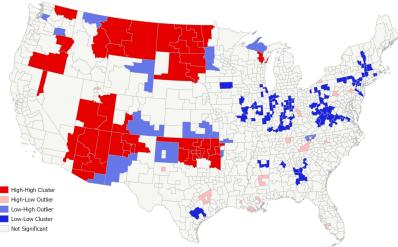
**Hispanics** 



### **Non-Hispanic African Americans**



## **Non-Hispanic Native Americans**



## Final considerations

- Factors associated with migration rates similar to previous findings (Molloy, Smith, Wozniak 2011; Moretti 2011)
- Neoclassical theory (Molloy, Smith, Wozniak, 2017)
  - People move to areas with more jobs
  - Areas in Midwest with economic issues still have higher concentration of non-migrants
- Social networks (Motel, Patten 2012)
  - Spatial patterns of internal migration vary for different nativity and race/ethnicity groups
  - Areas with large proportions of specific race/ethnicity groups are attracting more of these groups

