Mapping the Subcomponents of Net International Migration (NIM)

An overview of the geographic distribution of foreign-born migration using ACS data

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Outline

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Background

- The U.S. Census Bureau produces population estimates annually for states, counties, cities and towns/townships.
- The Population Estimates Program provides estimates important for federal and state funding allocations and survey controls for the American Community Survey (ACS) and the Current Population Survey (CPS).
- The Census Bureau releases population estimates as a time series starting with the most recent census.
Background: Components of Change

\[ P_2 = P_1 + B - D + NDM + NIM \]

- \( P_2 \): estimated population
- \( P_1 \): starting population (April 1, 2010)
- \( B \): births
- \( D \): deaths
- \( NDM \): net domestic migration
- \( NIM \): net international migration
Background: NIM Component

\[ P_2 = P_1 + B - D + NDM + NIM \]

\[ = I - E + (NAT + PR + MIL) \]

- \( I \): foreign-born immigration
- \( E \): foreign-born emigration
- \( NAT \): net native-born migration
- \( PR \): net U.S. – Puerto Rico migration
- \( MIL \): net military movement
Data and Analysis

- Population Estimates Data
- Time Series: 2010 through 2013
- Type of international migration flows:
  - Mexico
  - All Other Countries
- Measures of international migration
- Maps: States and Counties
Methodology: Nation

- Current Data Sources:
  - Census 2000
  - ACS single-year file (since 2002)
  - Foreign Censuses and Population Registers

- Since 2007, estimated net foreign-born migration by flow:
  - Immigration – based on the citizenship and the residence one year ago question (ROYA)
  - Emigration – residual method applied to data from the Census 2000 and ACS single-year files
Figure 1. Subcomponents of Net International Migration (NIM)

FOREIGN-BORN IMMIGRATION
1. Mexico only
2. All Other Countries

NET MIGRATION
7. Puerto Rico
8. Native Born
9. Military

FOREIGN-BORN EMIGRATION
Recently Arrived
3. Mexico only
4. All Other Countries

Non-Recent
5. Mexico only
6. All Other Countries
Figure 2. NIM Subcomponent Totals for the Nation: April 1, 2010 – June 30, 2013 (In thousands)

- **IMMIGRATION of foreign born**: 2,976 (401)
- **EMIGRATION of recently arrived foreign born**: 127 (215)
- **EMIGRATION of long-term foreign born**: 348 (154)
- **NATIVE BORN, PUERTO RICO, and MILITARY**: 395

Methodology: States & Counties

- Distributions by geography and characteristics:
  - States: 3-year ACS
  - Counties: 5-year ACS
- Apply distributions to national NIM subcomponents
- State- and County-level estimates sum to the national estimate for each subcomponent
Figure 3. Net International Migration of the Foreign Born (All Other Countries) by State: April 1, 2010 to June 30, 2013

Figure 4. Foreign-Born Migration Flows (All Other Countries) for Ten States With Largest Combined Migration: April 1, 2010 – June 30, 2013

- California
- New York
- Florida
- Texas
- New Jersey
- Illinois
- Massachusetts
- Virginia
- Maryland
- Pennsylvania

Figure 5. Net International Migration of the Foreign Born (Mexico) by State: April 1, 2010 to June 30, 2013

Figure 6. Foreign-Born Migration Flows (Mexico) for Ten States With Largest Combined Migration: April 1, 2010 – June 30, 2013

Figure 7. Net International Migration of the Foreign Born (All Other Countries) by County: April 1, 2010 to June 30, 2013

Net Int'l Migration

- 10,000 or more
- 1,023 to 9,999
- 0 to 1,022
- Less than 0

Figure 8. Net International Migration of the Foreign Born (Mexico) by County: April 1, 2010 to June 30, 2013
Gross (Total) Migration

\[ G = (I + E) \]

- Sum of total in- and out-migration flows
- Immigration and Emigration
- Ignores the direction of migration
Figure 9. Classification of Counties by Gross International Migration of the Foreign Born: April 1, 2010 to June 30, 2013
(counties with above average gross migration)

Demographic Effectiveness of Foreign-Born International Migration

\[ F_{FB} = \left( \frac{NIM_{FB}}{G_{FB}} \right) \times 100 \]

- Net International Migration of the Foreign Born (\(NIM_{FB}\)) and Gross Migration of the Foreign Born (\(G_{FB}\))
- Measure of directionality:
  - 100% all migration outflow
  - 0% migration flows are equal
  - -100% all migration inflow

Sources: Shryock (1964); Plane and Rogerson (1994); Plane, Henrie and Perry (2005); Henrie and Plane (2008)
Figure 10. Effectiveness of International Migration of the Foreign Born (All Other Countries) by County: April 1, 2010 to June 30, 2013

(For counties with 50 or more gross migrants)


* No county with below zero value
Figure 11. Effectiveness of International Migration of the Foreign Born (Mexico) by County: April 1, 2010 to June 30, 2013

(For counties with 50 or more gross migrants)

Conclusions

- Geographic variation in international migration
  - All Other Countries distributions:
    - Net gains for most counties
    - Activity in college counties
  - Mexico migration distributions:
    - Net losses experienced in the West and border counties
    - Net gains in other regions
- Future research on migration from All Other Countries category
More Information

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- Population Estimates Program Homepage
  www.census.gov/popest/

- Foreign Born Population
  www.census.gov/population/foreign/