

International Student Migration within the Postcensal Population Estimates

Anthony Knapp
Population Division
U.S. Census Bureau

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This presentation is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views expressed are those of the authors and not necessarily those of the U.S. Census Bureau.

Introduction

- International student migration has been increasing over time:
 - Global total < 2 million in 1999. 4.7 million in 2015 (UNESCO)
 - United States is the largest receiving country (UNESCO)
 - Enrollment in United States exceeded 1 million in 2015/2016 (IIE 2016)
- United States government administrative data on student migration:
 - Student visa admissions (Office of Immigration Statistics)
 - Student visas issued abroad (Bureau of Consular Affairs)
 - Type of educational program (Immigration and Customs Enforcement)
- Impact on United States resident population estimates is unknown.
- Difficult to identify in censuses and surveys because students can also be included in other migrant categories (e.g. labor migration).

Measuring International Students

- How to identify international students? Examples:
 - Citizenship status
 - Intent/reason for moving
 - Legal status (e.g. cannot establish legal permanent residence)
 - Enrolled in an academic program
- Who to include in population and migration statistics?
 - Census residence rules are not equivalent to legal residence.
 - Based on intended or actual duration of stay rather than immigration status.
 - Individual entries into the country are not the same as migration events.
- Census Bureau immigration estimates rely on survey data instead of administrative records.

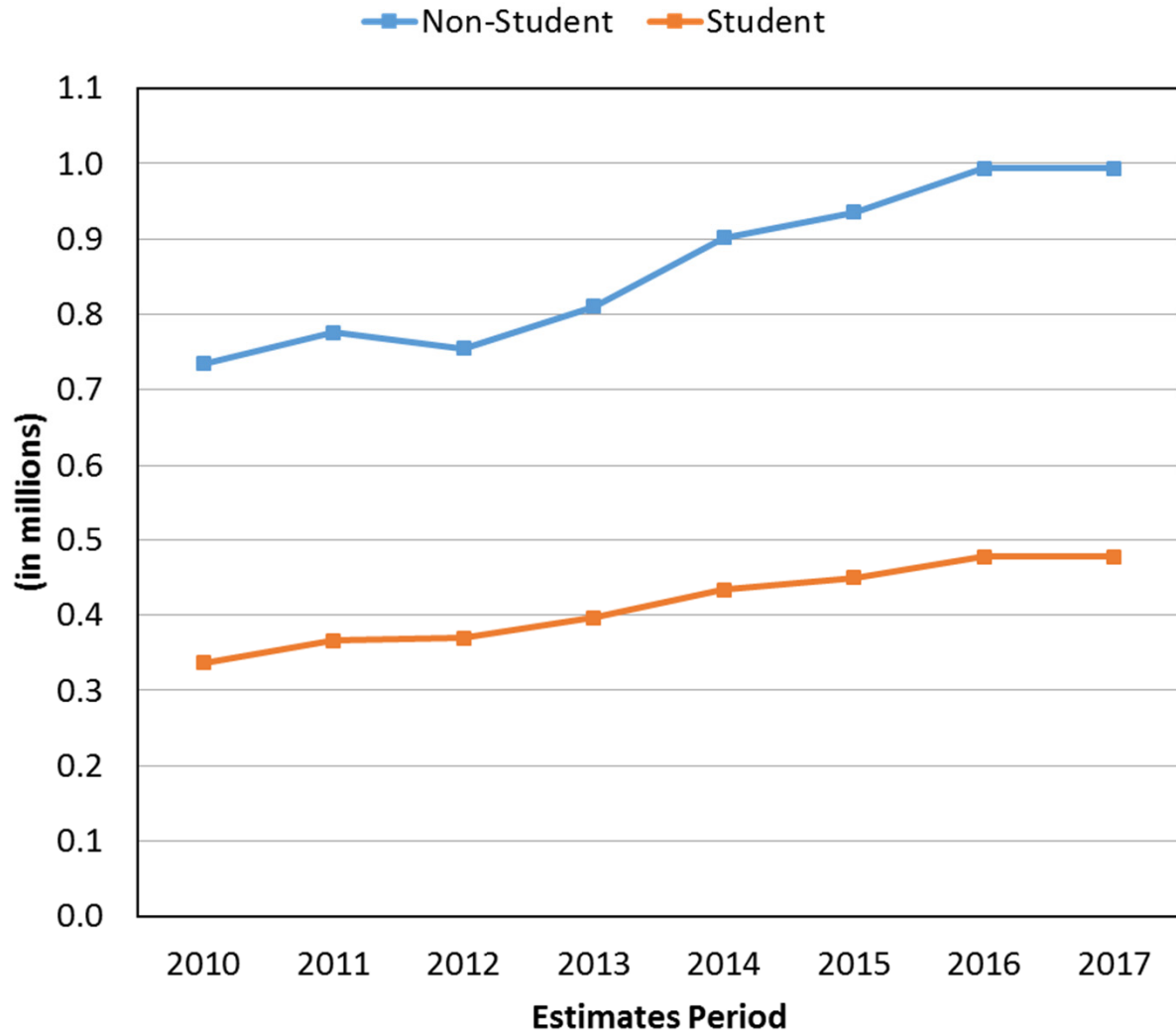
Census Bureau, Population Estimates Program (PEP)

- PEP produces official population estimates for the United States based on natural increase and net migration.
- PEP estimates annual **foreign-born immigration** as a subcomponent of net international migration:
 - Foreign-born immigration reflects the number of non-US citizens and naturalized citizens whose **residence one year ago** was abroad.
 - Apply population characteristics of recent arrivals (**proxy universe**) from multiple survey years to estimate demographic composition and geographic distribution of foreign-born immigration.
- However, PEP does not consider student status when producing estimates.

Research, Data, and Methods

- Research Questions:
 - What **impact** does international students have on immigration statistics used to produce population estimates?
 - How do migration **levels** and **demographic characteristics** of students compare to non-students and how has this comparison changed over time?
 - How does the **geographic distribution** of students within the United States differ from non-students?
- I simulate foreign-born immigration from Vintage 2017 PEP estimates.
- I modify the proxy universe to include enrollment status: non-student, primary/secondary (grades K-12), and tertiary (college or higher).

Annual Estimates of Foreign-Born Immigration by Enrollment Status: 2010-2017

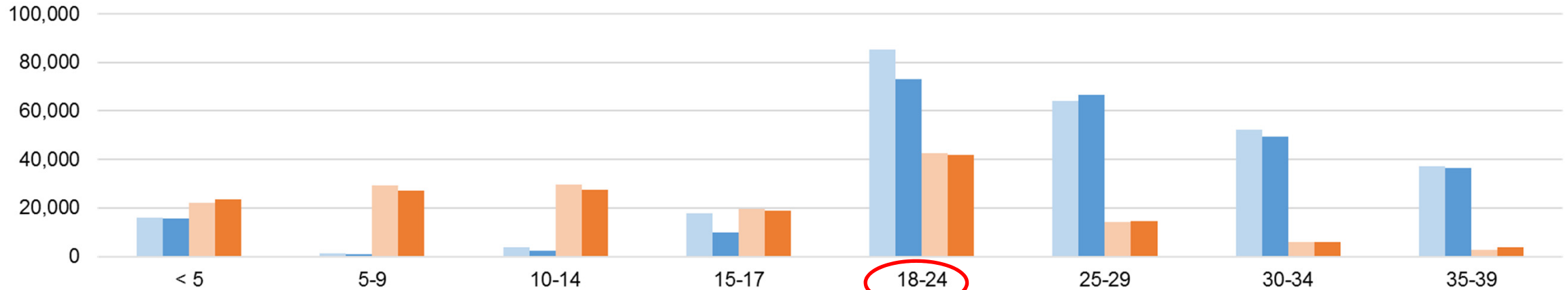


- Simulation of V2017 foreign-born immigration time series.
- Student immigration increased 42% from 0.34 in 2010 to 0.48 million in 2017.
- Non-student immigration increased 35% between 2010 and 2017.
- Students comprise about 1/3 of total foreign-born immigration.
- Tertiary students comprise about 1/2 of students.

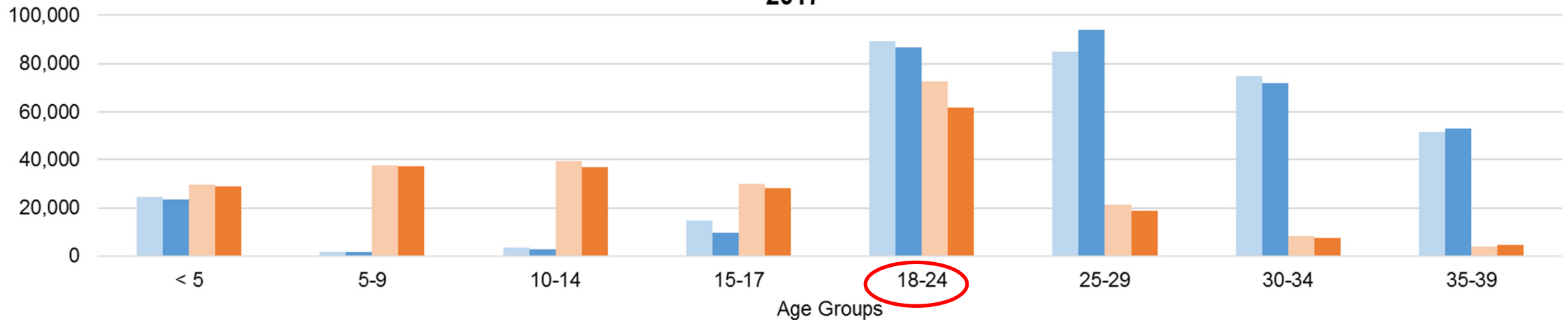
Foreign-Born Immigration by Age Group, Sex, and Enrollment Status: 2010 and 2017

■ Non-Student Male
 ■ Non-Student Female
 ■ Student Male
 ■ Student Female

2010

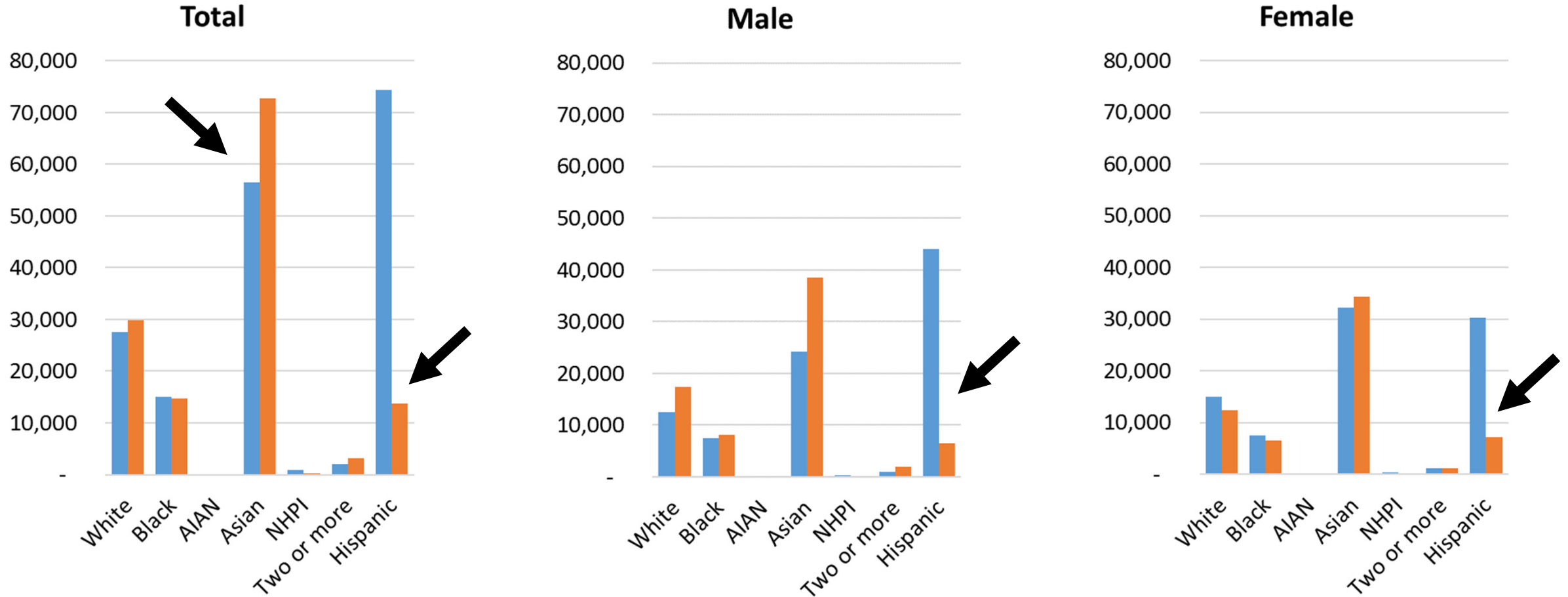


2017



Foreign-Born Immigration Age 18 to 24 by Sex, Race, Hispanic Origin, and Enrollment: 2017

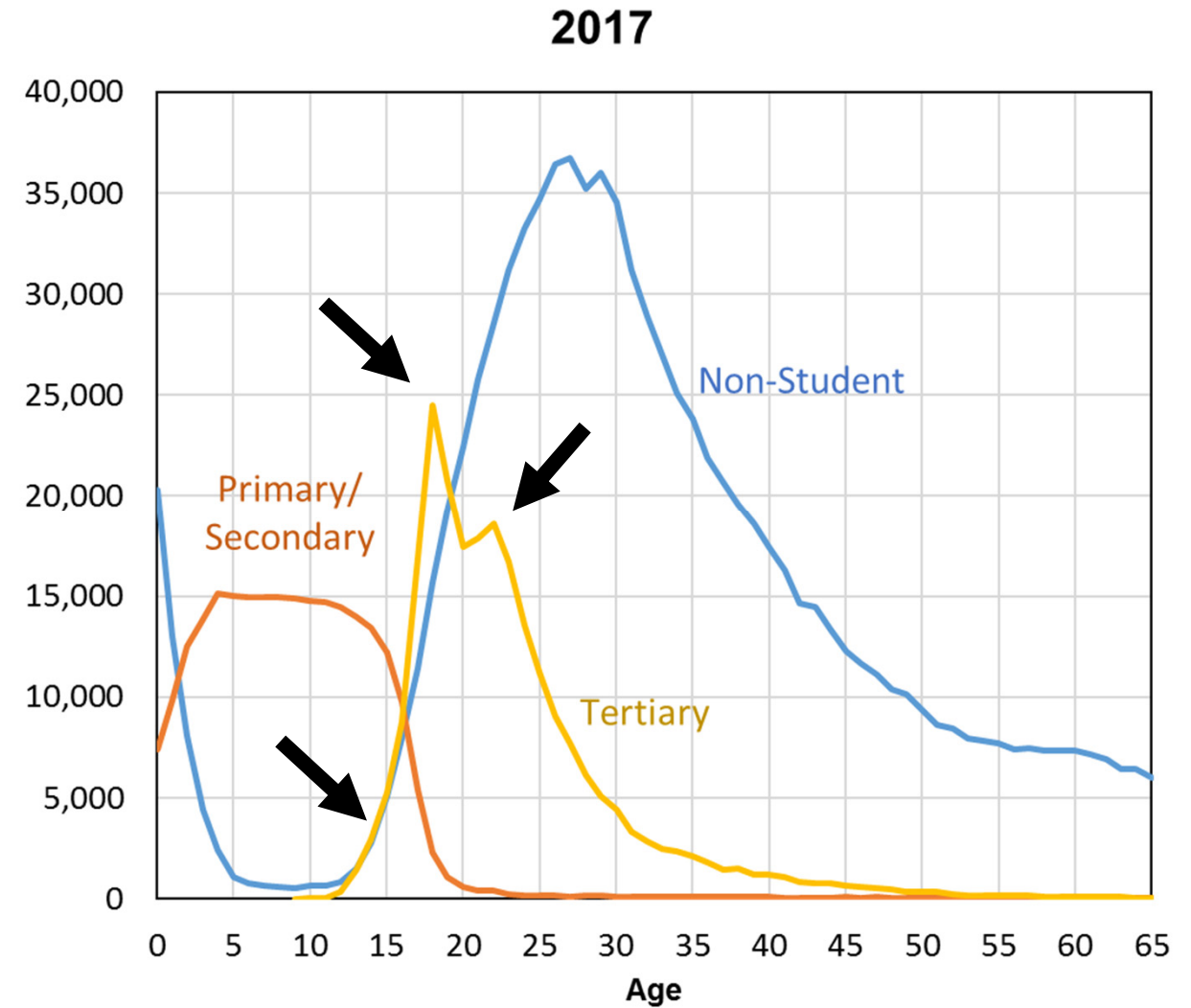
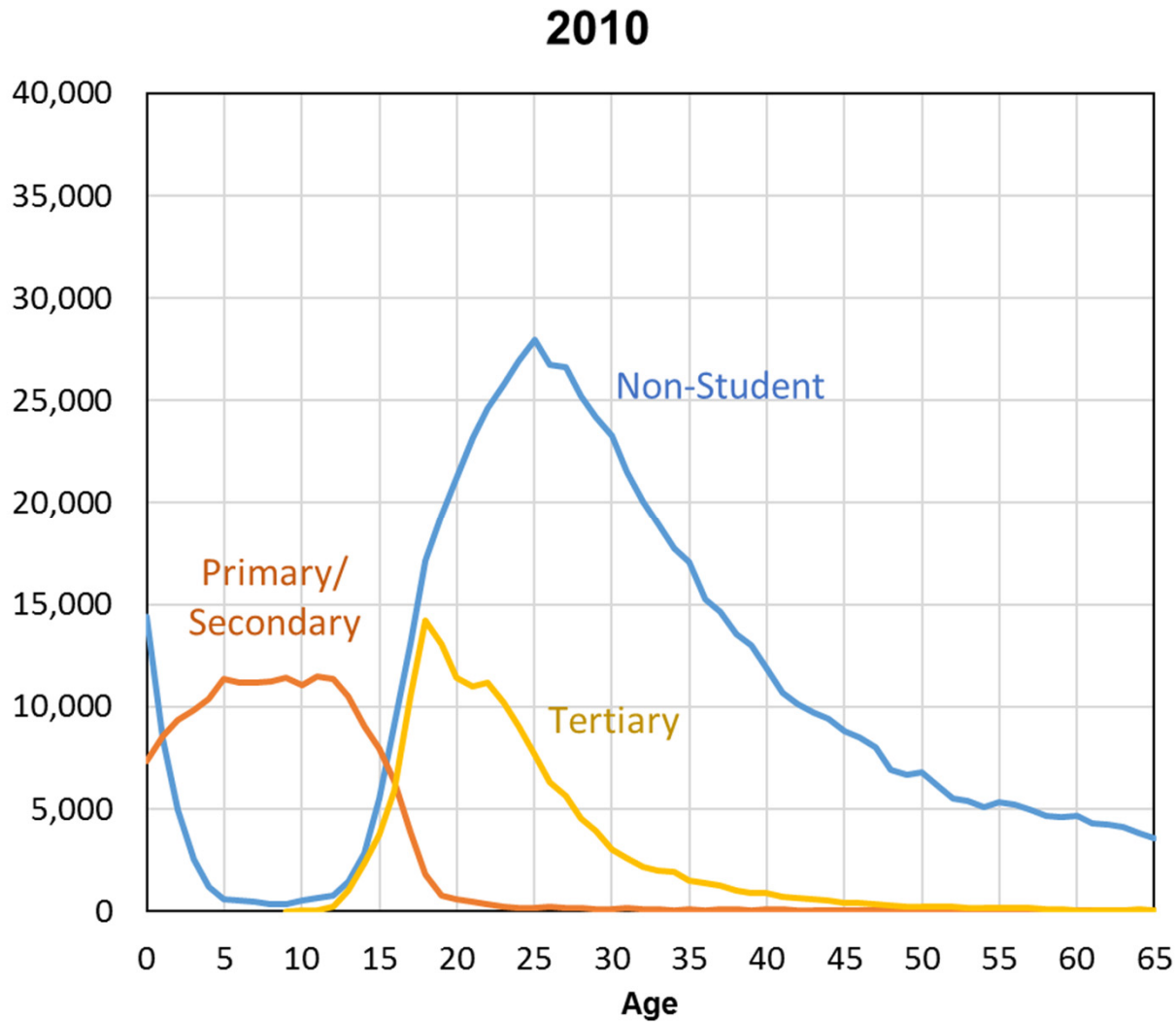
■ Non-Student ■ Student



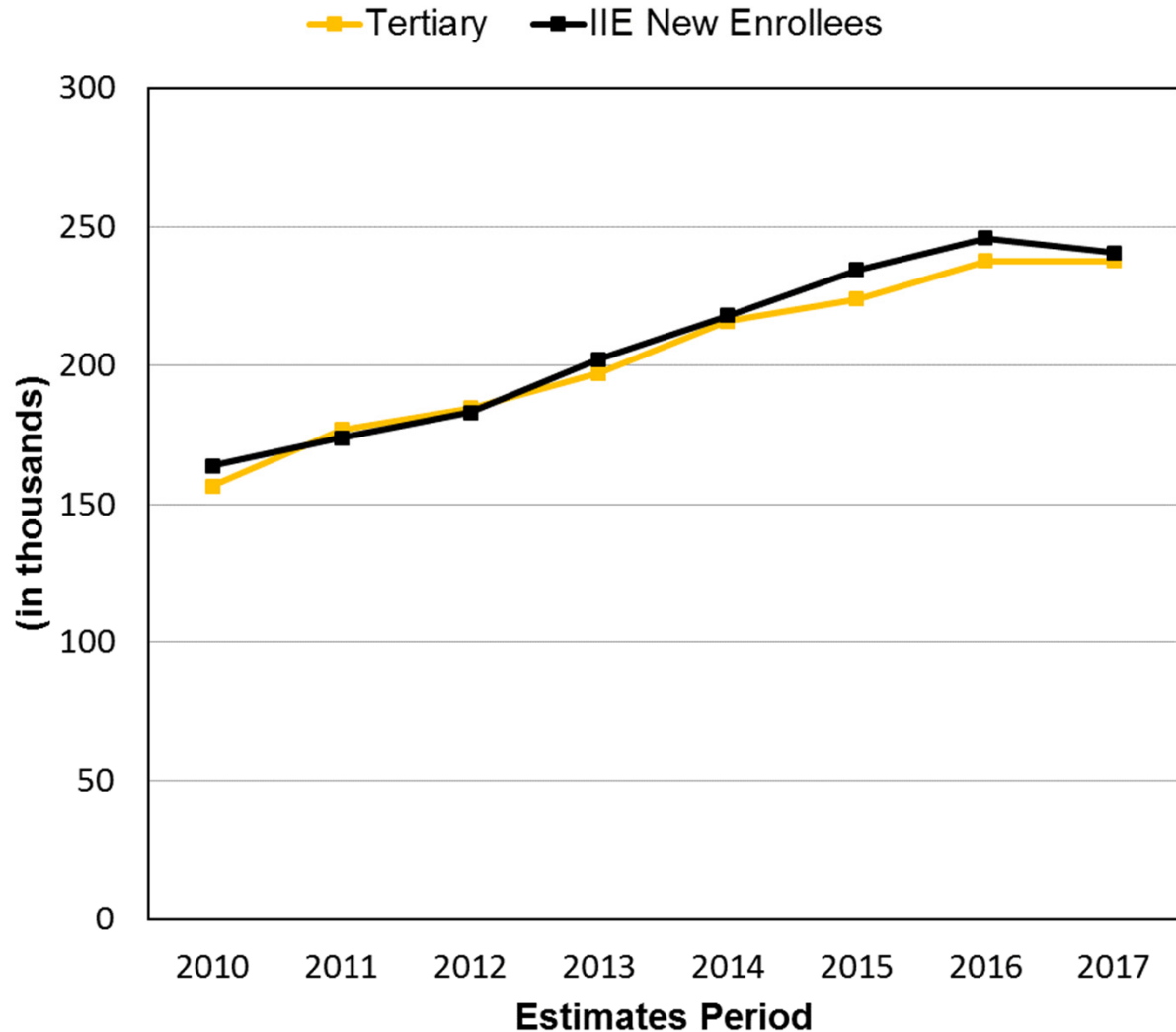
Note: Categories are non Hispanic unless otherwise stated and are mutually exclusive. Race categories are the following: White alone, Black or African American alone, American Indian or Alaska Native (AIAN) alone, Asian alone, Native Hawaiian or Other Pacific Islander (NHPI) alone, and Two or more races.

Data source: Census Bureau, Population Division, Simulated 2017 Estimates.

Age Distribution of Foreign-Born Immigration for Non-Students, Primary/Secondary Students, and Tertiary Students: 2010 and 2017



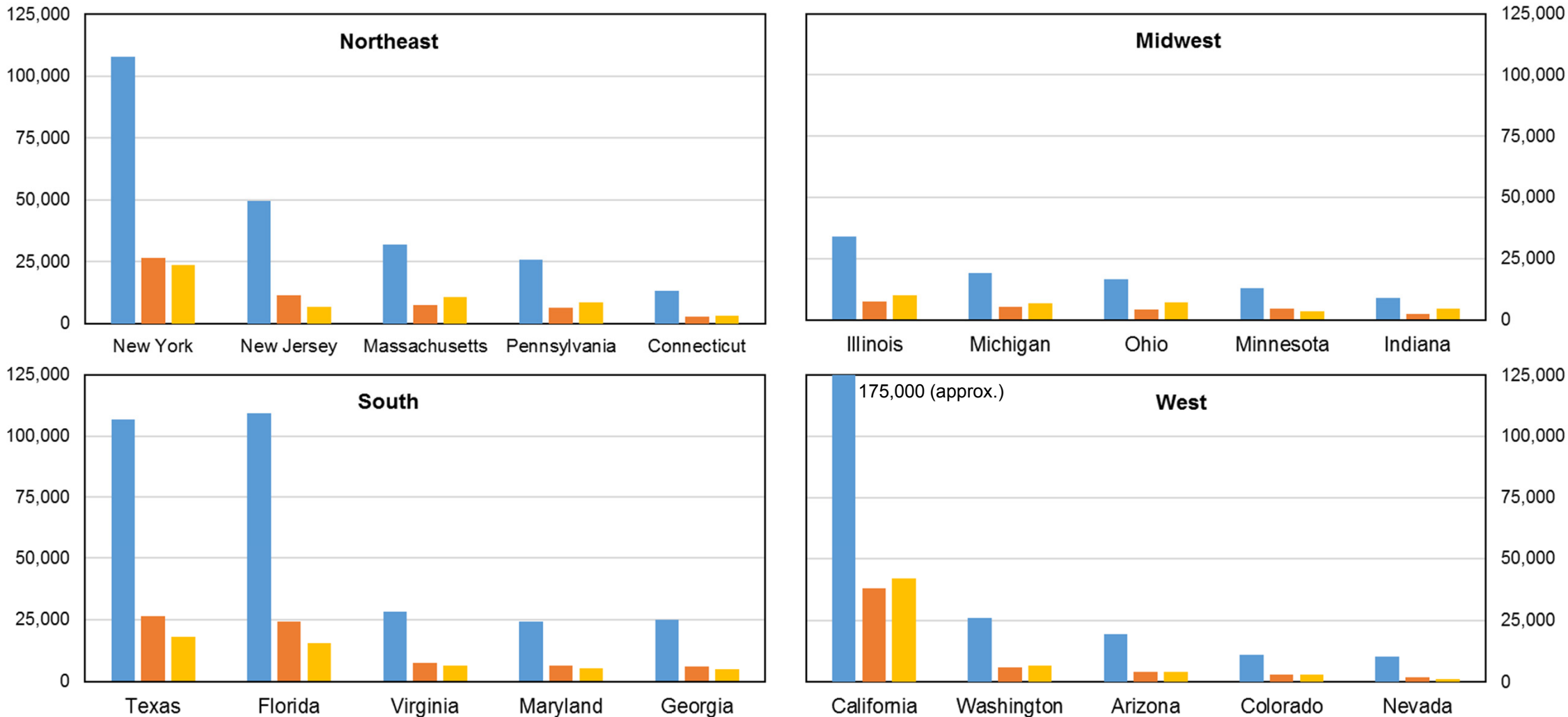
Annual Estimates of Foreign-Born Immigration by Enrollment Status: 2010-2017



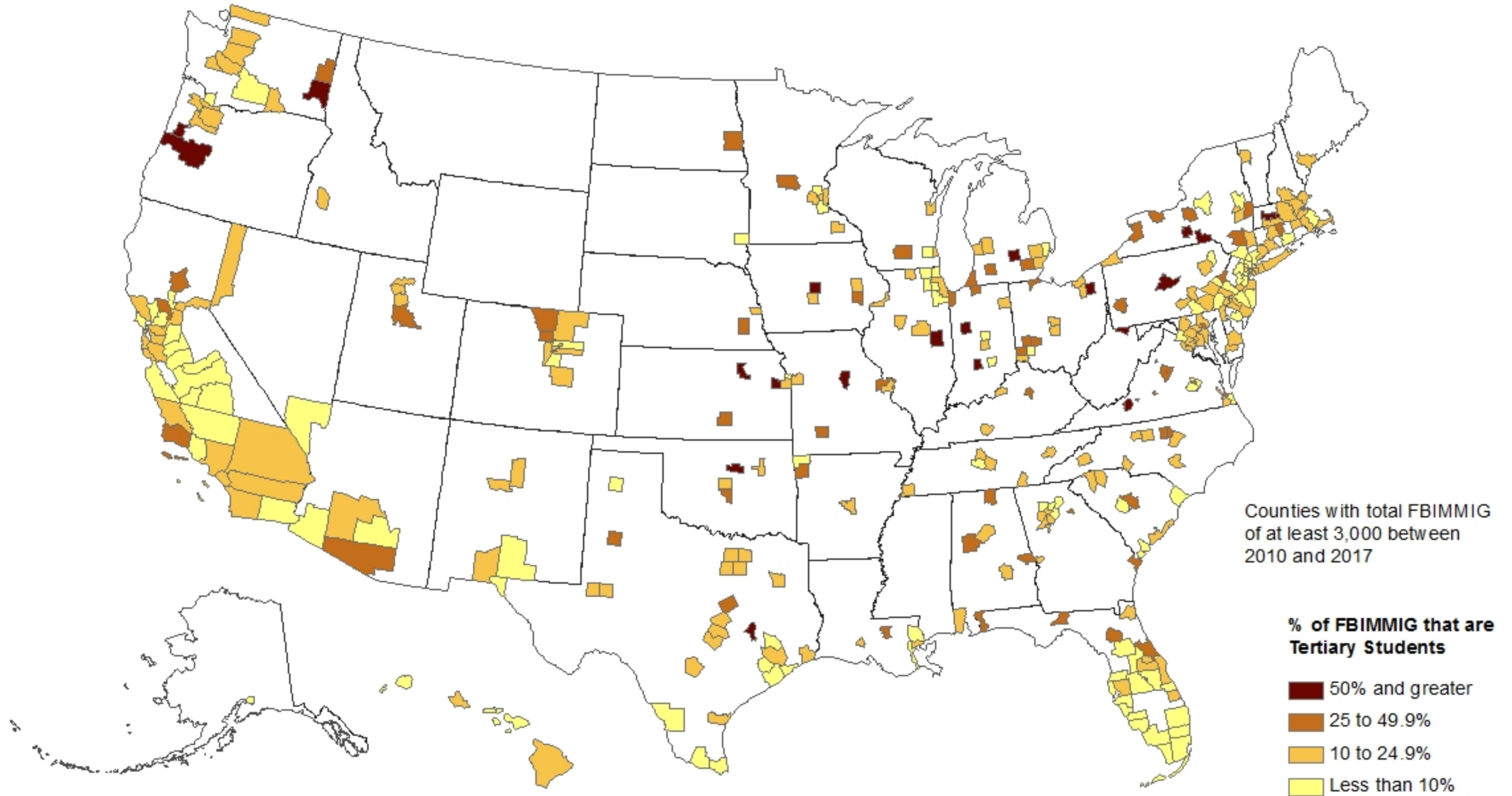
- Time series comparison of simulation and external data.
- Institute of International Education (IIE):
 - Open Doors report, new international enrollment
 - Excluding students enrolled in non-degree programs
- Simulation: tertiary students.

State Distribution of Foreign-Born Immigration by Enrollment Status and Census Region: 2017

■ Non-Student ■ Primary/Secondary ■ Tertiary



Percent of Foreign-Born Immigration since 2010 that are Tertiary Students



Data source: Census Bureau, Population Division, Simulated 2017 Estimates.

Discussion

- Evaluation of the Vintage 2017 estimates based on international student migration:
 - Simulation of students relies on ACS residence rules and available variables.
 - About 1/3rd of annual foreign-born immigration estimates are students and half of these are tertiary students.
 - Peak migration age 18-24 is increasingly students.
 - Student migration concentrated in a few, but expected, geographies.
- Impact to total resident population?
 - Assumptions on how many students return home after study.
 - Do they stay in the United States or do they leave?
 - Internal migration to other counties/cities in the United States after graduation?