

The Impact of Education-Related Migration on International Migration Statistics in the United States

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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.

Outline of Presentation

- Introduction
- Research Questions
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- Recent Findings
 - General Trends
 - Survey vs Administrative Data
 - Tertiary-Level International Students
 - Subnational Distribution
- Conclusions/Future Research
- Discussion

Introduction

- The U.S. has the largest number of international students enrolled in tertiary-level education (over 1 million for the 2015-2016 academic year).
 - Foreign student admissions increased from 740,000 in 2006, to 1.6 million in 2010, to 2 million in 2015.
- Total foreign-born immigration increased from 1.1 million in 2010 to 1.5 million in 2016.
 - Shift in the countries of origin of international migrants
 - Mexico is no longer the primary sending country due to increased migration from China and India and decreased migration from Mexico.

Some Questions

- Is the recent increase in foreign-born immigration and shift in countries of origin simply a reflection of increased education-related migration to the United States?
- To what extent does the American Community Survey (ACS) measure international students?
- What impact do international students have on our net international migration (NIM) estimates, particularly at the subnational level?

Student Migrant Definitions

- Per 1998 UN recommendations, migration defined as a change in usual residence.
 - Anyone meeting these criteria, whether a student or not, should be counted as a migrant.
- International students: temporarily cross international boundaries for the **purpose of study**.
- Students defined as “international” (move to a country with the specific intent to study) or “foreign” (non-citizen students in the country).
- International students included in Census Bureau’s estimates of international migration if they meet residence criteria (e.g. ACS is a two-month period of stay).
- DHS measures international students based on visa status, who are considered non-immigrants.

Data used in Analysis

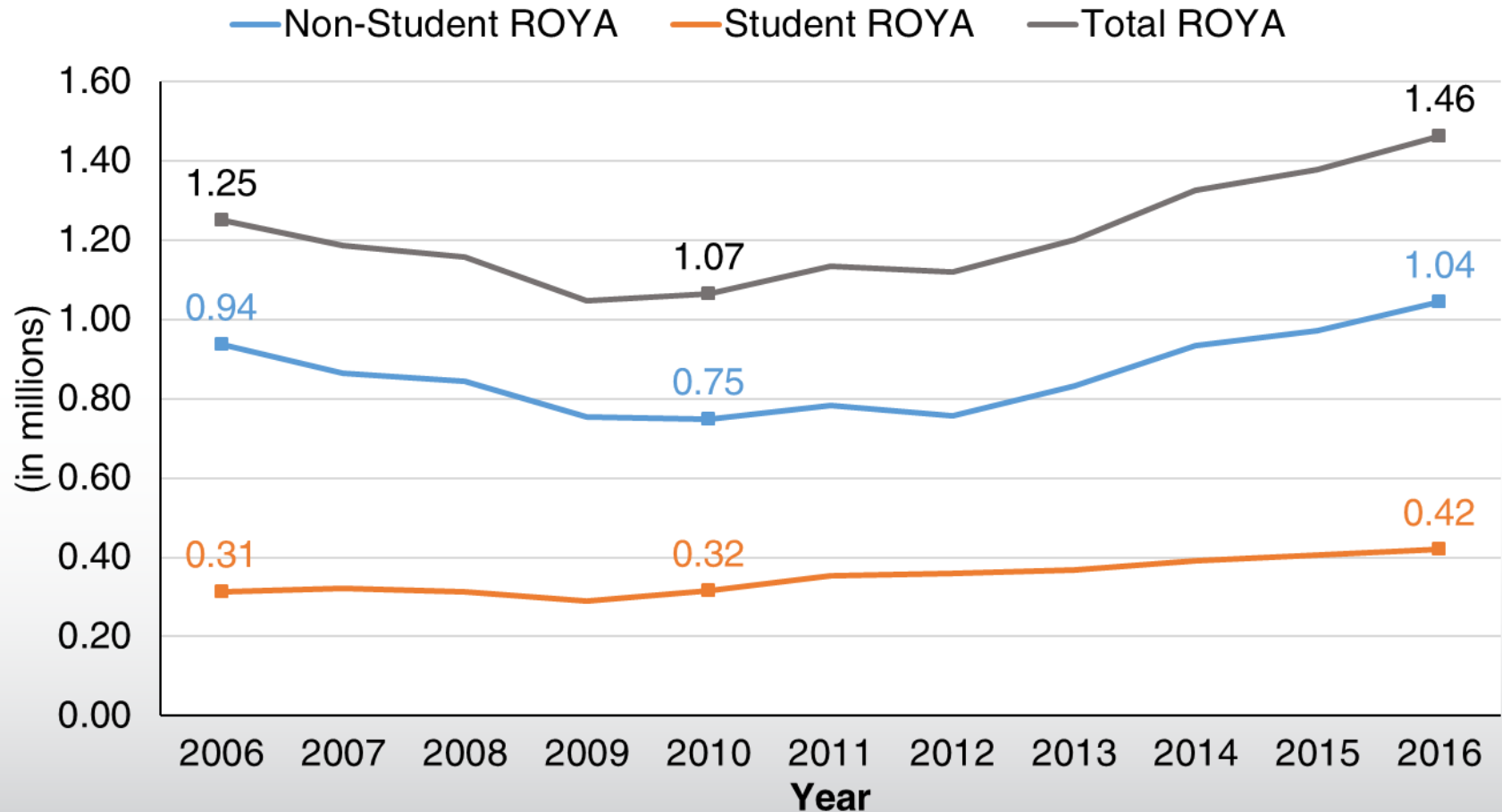
- ACS
 - Annual survey of 3.5 million housing units
 - Current residence is defined as having lived in or intending to live in the address for at least two consecutive months.
 - Group Quarters *de facto* residence rule
 - Residence One Year Ago Outside the U.S.
 - Country of Birth
 - Currently enrolled in school (or college)
 - No information on intent of move or legal status

Data, continued.

- Administrative data
 - Department of Homeland Security (DHS)
 - Persons with Student visas admitted for entrance to the U.S.
 - Events not individuals
 - Individualized (includes both new and returning students)
 - New Student Visas issued during the year (State Department)
 - Not necessarily matriculated
- International Institute of Education (IIE)
 - Survey of 3,000 academic institutions of higher learning

General Trends in Foreign-born Immigration (ROYA)

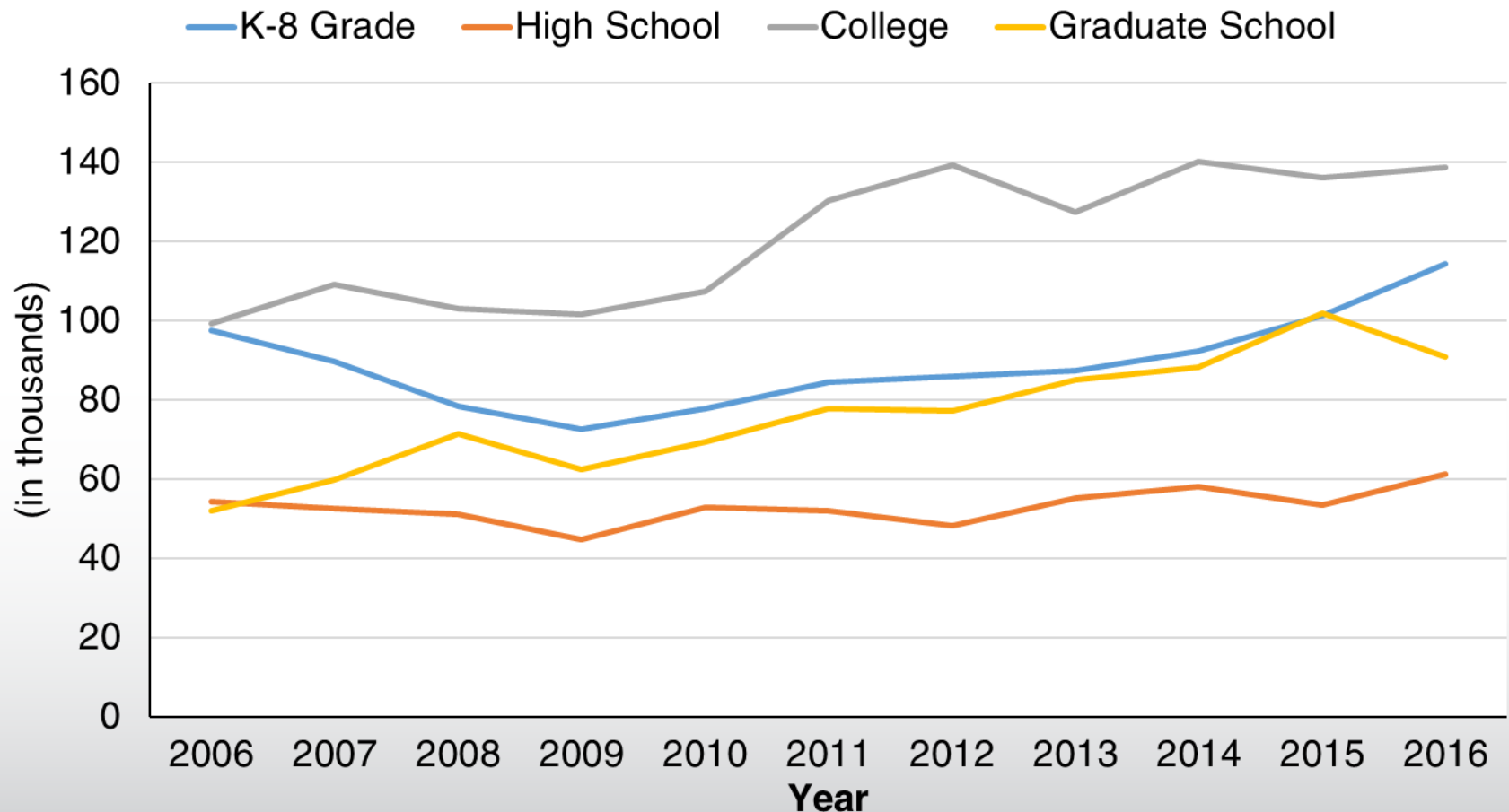
Enrollment Status: 2006-2016



Data source: U.S. Census Bureau, 2006 through 2016 ACS 1-Year Estimates

General Trends in Foreign-born Immigration (ROYA)

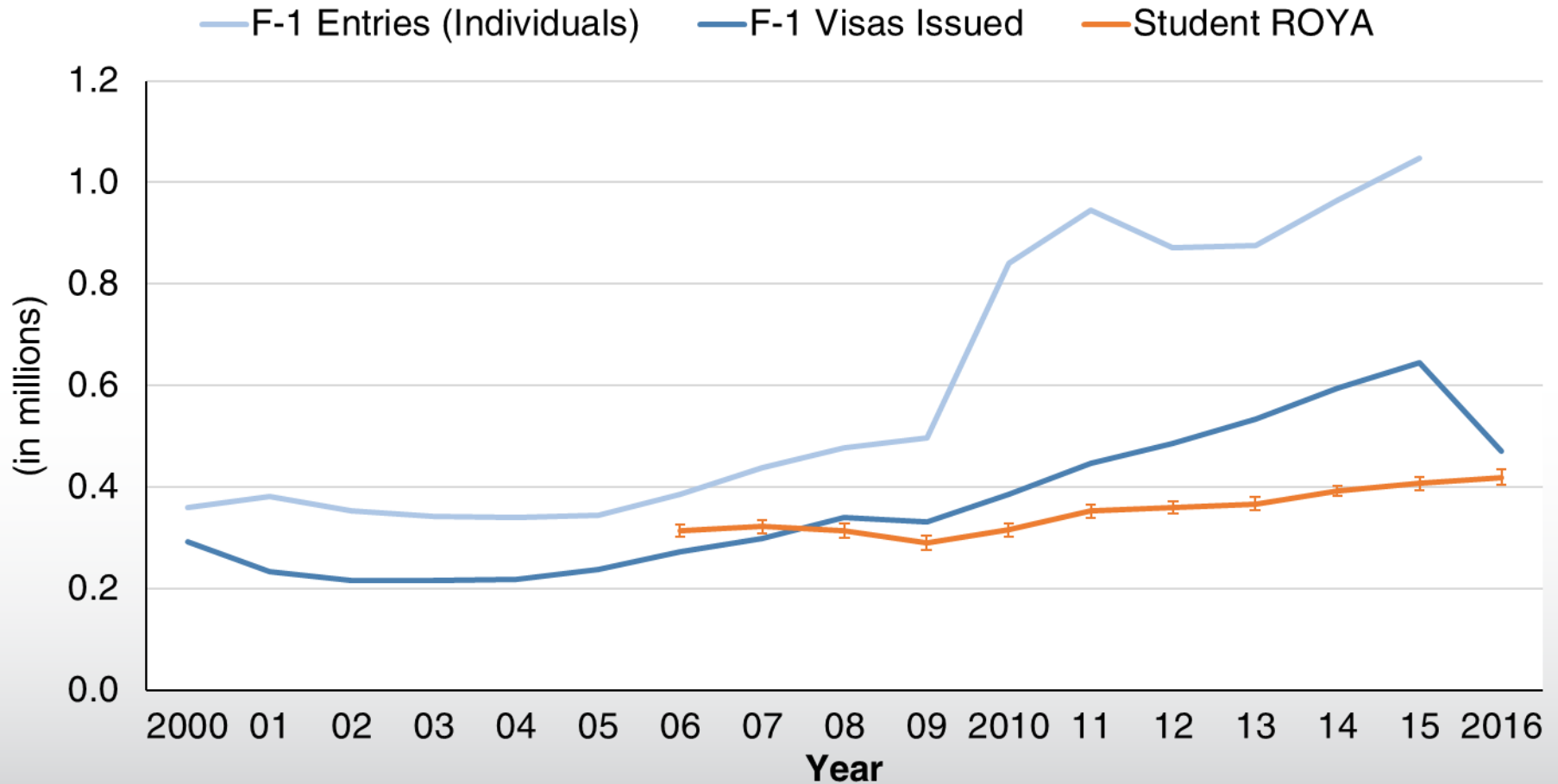
Student Enrollment by Level: 2006-2016



Data source: U.S. Census Bureau, 2006 through 2016 ACS 1-Year Estimates

Survey vs Administrative Data

F-1 Student Visas and Student ROYA: 2000-2016



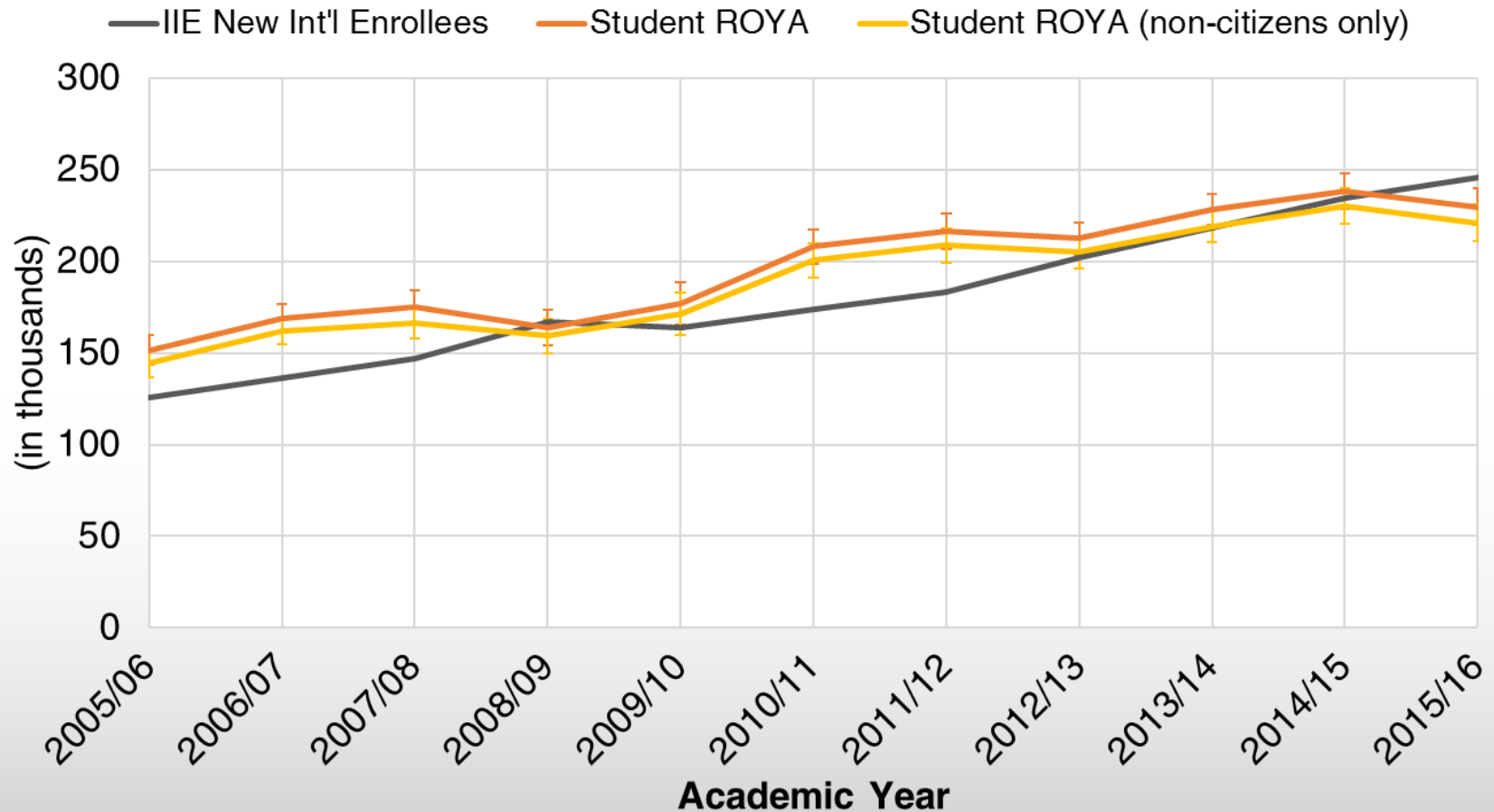
Data source: Office of Immigration Statistics (2016), U.S. Department of State (2016), and U.S. Census Bureau, 2006 through 2016 ACS 1-Year Estimates, 90% confidence intervals shown

Tertiary-Level International Students

- Characteristics of immigration to the United States has changed due to student and non-student trends.
- Recently-arrived immigrants traditionally are concentrated within ages 18-24:
 - Prior to 2010, ROYA ages 18-24 predominately non-students (e.g. labor migrants) for both men and women.
 - Since 2010, students comprise the majority of ROYA ages 18-24 for both men and women.
- Next slides will focus on tertiary-level international students, who will be represented in the 18-24 age group.
- We define tertiary-level international students as foreign-born ROYA currently in the United States who are enrolled in a college- or graduate-level academic institution.
- ACS-based estimates exclude vocational training and language study.

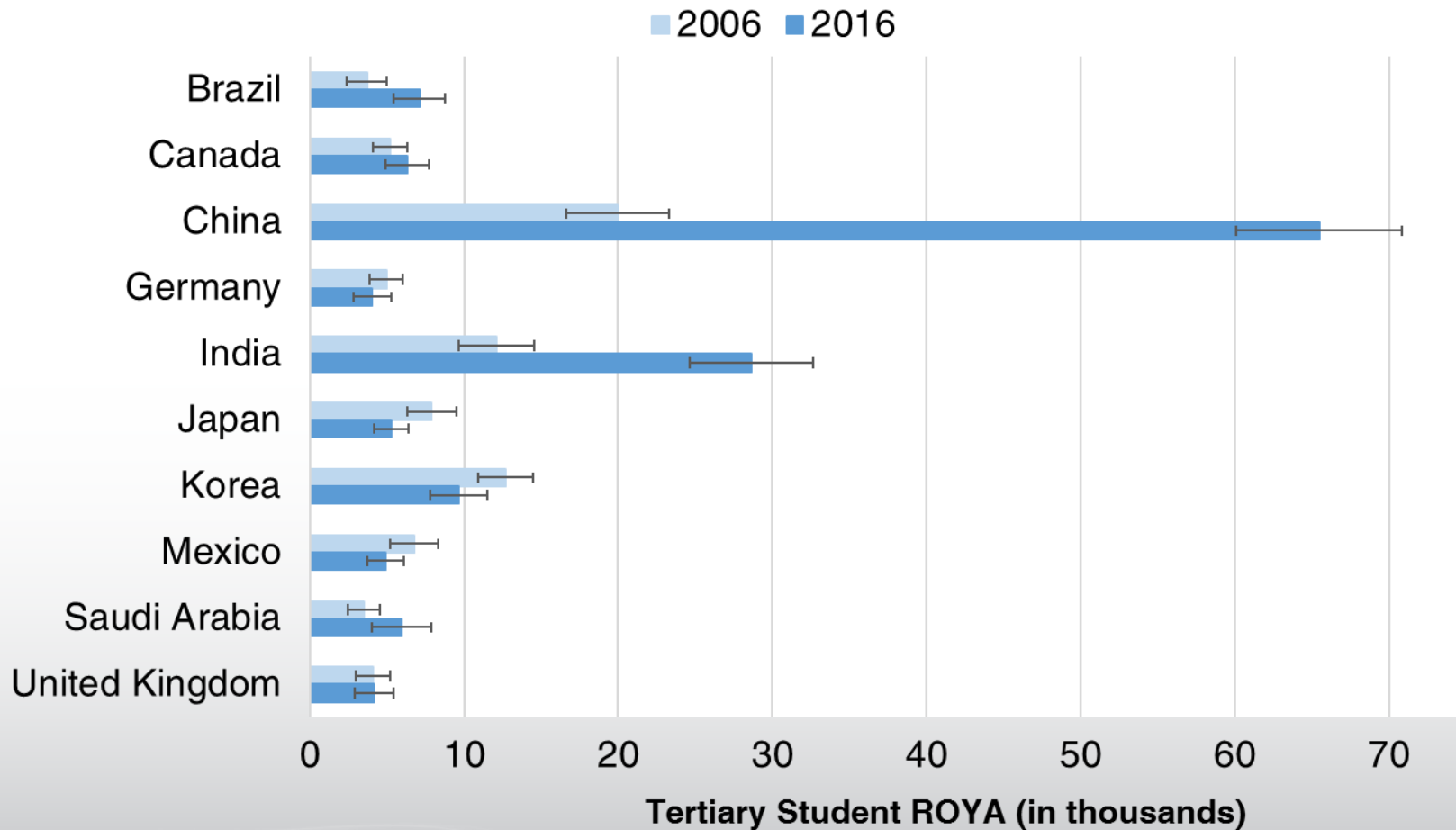
Survey vs IIE Data

Tertiary-Level Students: 2005/2006 - 2015/2016



Data source: IIE Open Doors (2016); U.S. Census Bureau, 2006 through 2016 ACS 1-Year Estimates, 90% confidence intervals shown

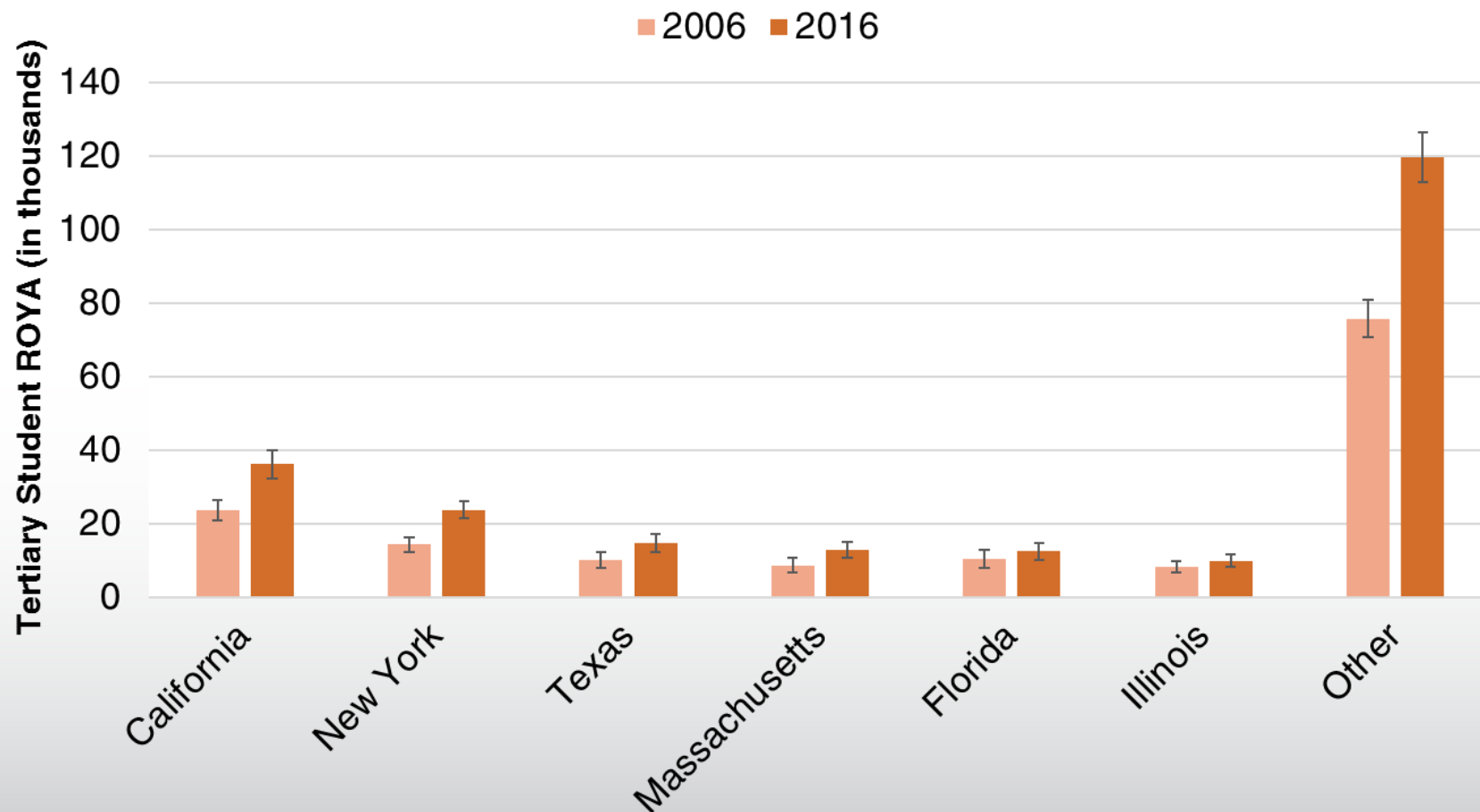
Tertiary-Level Student ROYA Selected Countries of Birth: 2006 and 2016



Data source: U.S. Census Bureau, 2006 through 2016 ACS 1-Year Estimates, 90% confidence intervals shown

Tertiary-Level Student ROYA

Selected States of Usual Residence: 2006 and 2016



Data source: U.S. Census Bureau, 2006 through 2016 ACS 1-Year Estimates, 90% confidence intervals shown

Share (%) of Each State's Total ROYA that are Tertiary-level Students

- Tertiary-level students comprise a relatively large share (26%) of Massachusetts' Total ROYA in 2006. This share is statistically the same for 2006 and 2016.
- Some states experience sizeable and statistically significant increases between 2006 and 2016:

State	2006	2016
California	9%	14%
Illinois	17%	22%
New York	13%	19%

- Whereas, Texas (7%) and Florida (9%) have relatively low shares in 2006, which did not statistically change in 2016.

Conclusions

- Students are sizeable contributors to overall foreign-born immigration, but do not explain the entire increase since 2009.
- Difficult to compare survey to administrative data international migration flow estimates, as definitions and universes differ.
 - Administrative records often measure events (e.g. entries to the United States), while surveys measure individual migratory moves to establish residency in the United States.
- ACS underestimates international students compared to administrative data, though it is unclear to what extent.
- Shift in countries of origin is consistent with findings for total immigration and contributes to higher share of Asian immigrants in recent NIM estimates.
- Certain states are becoming more attractive to student migrants.
 - Likely more extreme at the county-level, where specific colleges and universities are located.

Future Research

- Extent to which migrants enrolled in school are moving to the U.S. for education-related reasons (“reason for move”).
- Comparability of administrative and survey data.
- Degree to which ACS underestimates the foreign student population.
- Further analysis of tertiary-level student migration to better understand student migration trends, particularly at the county level.
 - Identifying these counties prior to redistributing our NIM components, could improve the accuracy of the age, sex, and race/Hispanic origin distribution of these migrants.
 - Assess the impact of student migration on our methods, such as disaggregating immigration and emigration by school enrollment status, and comparing demographic characteristics of students and non-students.
- Examine the link between international student migration and labor migration
 - ILO International Labor Migration Working Group

Discussion

- How do other countries handle students in their migration data/statistics?
- Would it be possible to use administrative data to produce estimates of this sub-component of foreign-born immigration (similar question about refugees/asylum seekers)?
 - Issues about data quality, comparability, and access.
- Do other countries attempt to make administrative and survey data compatible (data integration)?

Contact Information

Thank you!

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