

# Leveraging U.S. Federal Statistics to Inform Census Bureau Migration Estimates during the COVID-19 Pandemic

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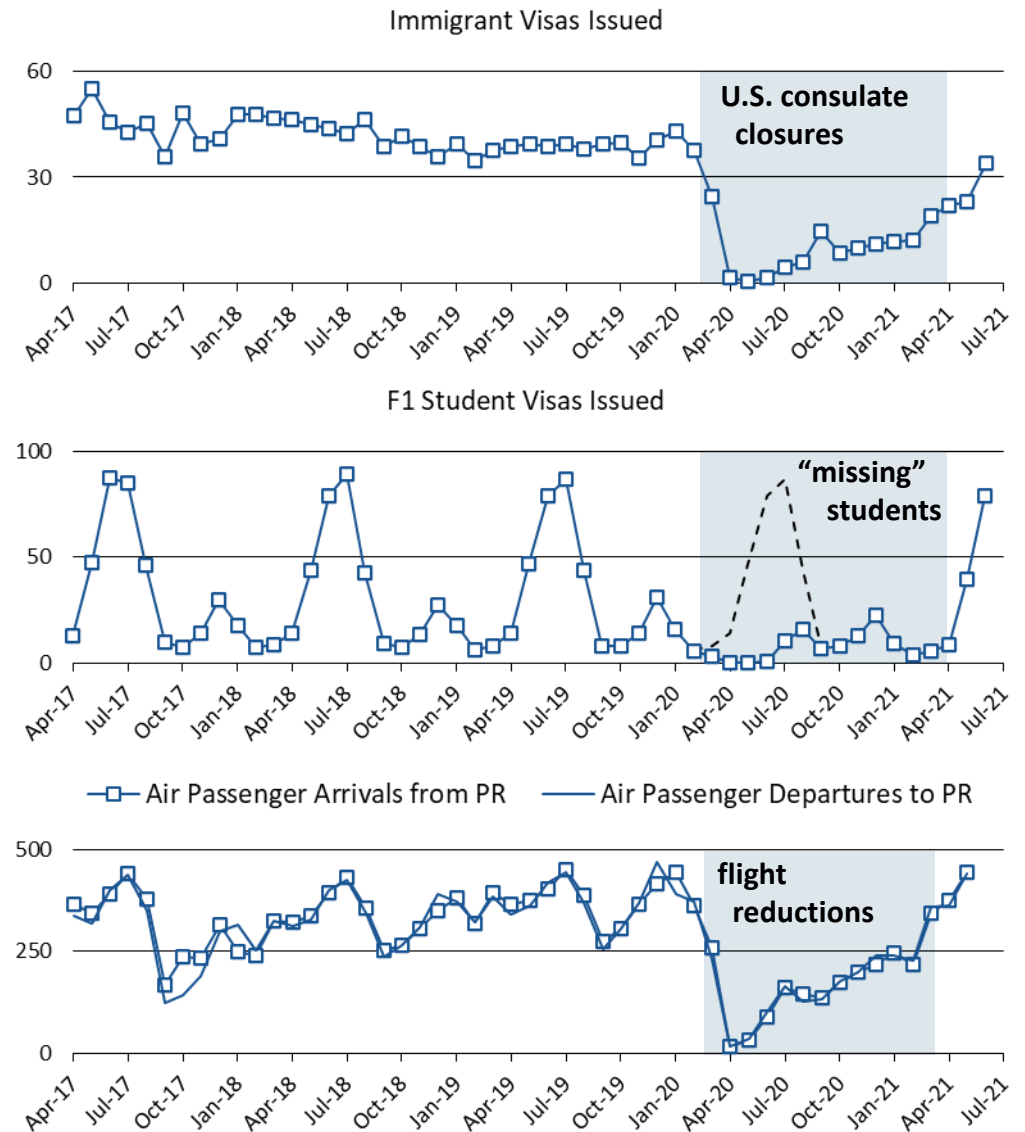
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# Introduction

- The need for timely and accurate data on international migration became more urgent during the COVID-19 pandemic starting in 2020. However, there are many challenges with migration data.
- U.S. administrative records on international mobility exist in a decentralized statistical system:
  - Data exchanges are **not timely** due to bureaucratic hurdles for creating and enforcing inter-agency agreements.
  - Federal agencies use **different definitions** and **reporting periods**.
  - Data are fragmented and **not representative** of all international migrants.
- The American Community Survey (ACS) is a large household survey released once a year that provides comprehensive data on immigration.
  - Migration data are **lagged**, which prevents an analysis of current year's trends.
  - In 2020, COVID-19 disruptions to survey operations led to exceptionally high **non-response bias**.
- The Census Bureau's Population Estimates Program (PEP) typically uses ACS data because of similar universe and coverage with the population census, though residence definitions differ.
- However, COVID-19 prevented the use of usual data and methods for 2020 and 2021.

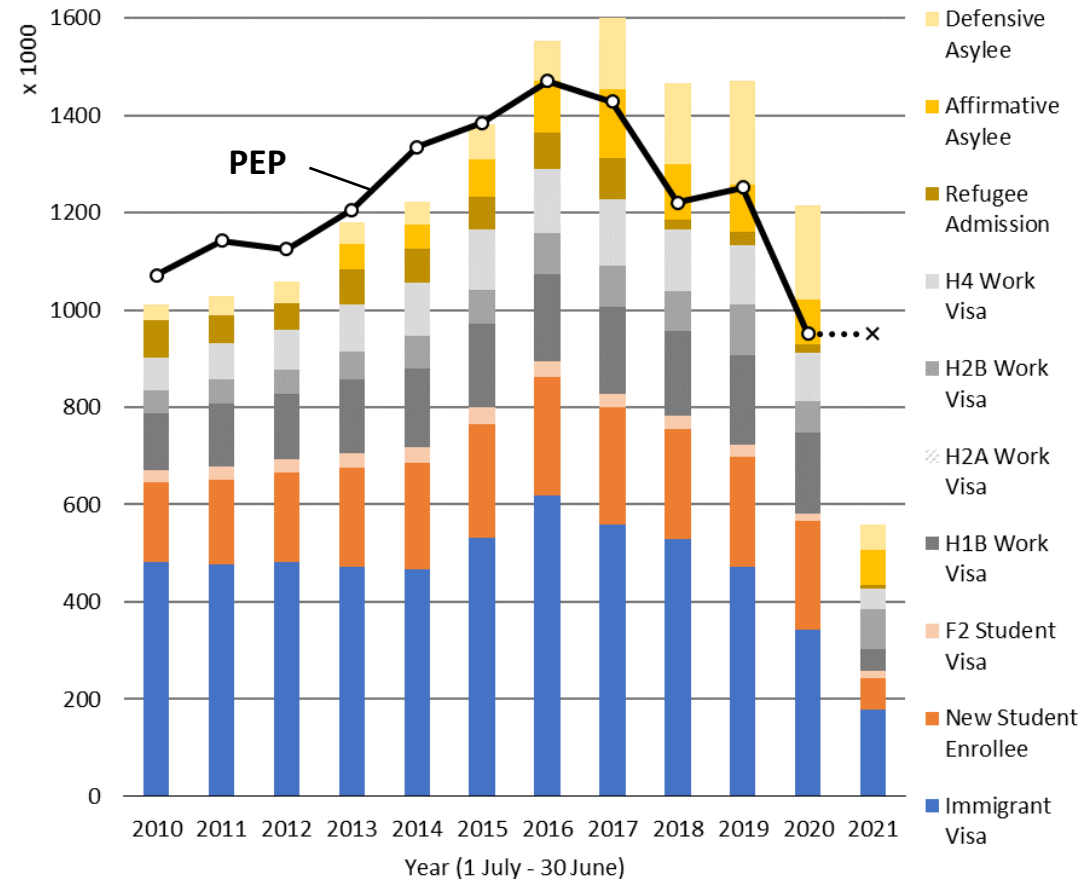
# Benchmark Database

- In response to this challenge, PEP developed the **Benchmark Database**, which compiles published statistics from various agencies to forecast the PEP series for the COVID-19 period (three examples shown here).
- Use of published statistics can be more timely than inter-agency data exchange. One-year data lag is reduced to one month in some cases.
- However, there are limitations:
  - Published statistics are intended to be administrative metrics, not migration measures.
  - Confounds mobility for migration. Requires subject matter expertise to identify files and carefully evaluate for fitness of use.
  - Often difficult to find published files. Only available as national aggregate statistics.



Data Sources: U.S. State Department, U.S. Bureau of Consular Affairs; Bureau of Transportation Statistics

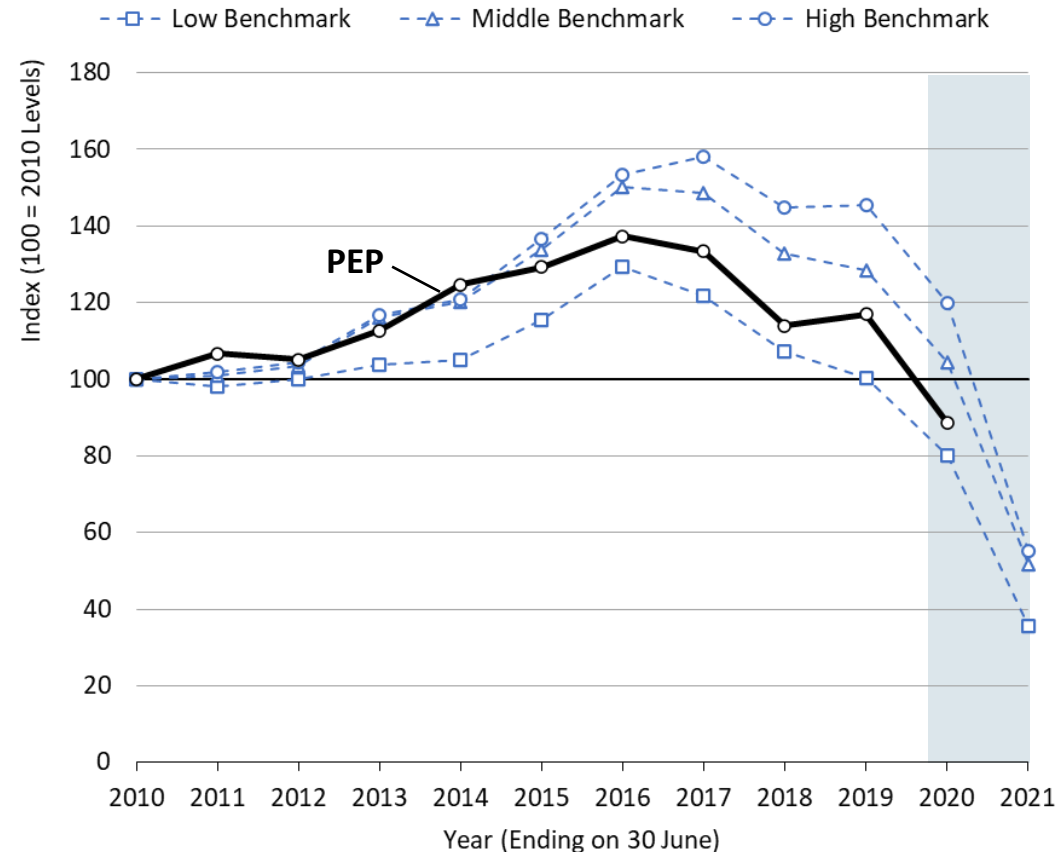
# Benchmark Components of Foreign-Born Immigration



- Compiled 10 benchmark components of foreign-born movement to the U.S.
- Not an exhaustive list but covers most categories of the foreign born who reside in the U.S. *most of the year*.
- Benchmarks and PEP trend similarly. Benchmarks surpass PEP immigration levels partially due to increased asylees.
- Benchmarks reflect the 1 July - 30 June reference period used by PEP. COVID-19 affects the last quarter of the 2020 reference period and all of 2021.
- 2020 PEP is a COVID-19 projection of 2019 ACS data based on early benchmarks. Final benchmarks shown here support PEP assumptions used in 2020.
- 2021 PEP is the standard projection assumption, which is not plausible given that COVID-19 impacted all of 2021.

Data Sources: U.S. Census Bureau, Vintage 2020 Population Estimates-Foreign-Born Immigration Component; U.S. State Department, Bureau of Consular Affairs; Institute of International Education; Refugee Processing Center; U.S. Citizenship and Immigration Services; U.S. Department of Justice

# Benchmark Series of Foreign-Born Immigration



Data Sources: U.S. Census Bureau, Vintage 2020 Population Estimates and Migration Benchmark Database (Internal Use)

- Emphasizes comparison of annual trends instead of absolute numbers. 2010 year used as a baseline.
- For 2021, the benchmark is used to develop a plausible range of immigration trajectories.
- Low benchmark is restricted to immigrants and refugees only. PEP theoretically should never fall below this series' totals.
- High benchmark combines all components from the previous slide. Heavily influenced by surge in asylees since 2014; however, many asylees might be outside the U.S. or appear in prior visa data.
- Middle benchmark combines immigrants, students, labor migrants, refugees, and affirmative asylees.
- COVID-19 travel restrictions impact part of the year for 2020 and all of 2021. This results in a narrow range of estimates to inform the PEP 2021 projection (not shown).

# Discussion

- The forthcoming PEP series (not shown) applied a ratio of 2021 to 2019 Middle benchmark totals to the 2019 PEP total to project 2021 PEP:
  - Current PEP methodology ties immigration levels to the ACS.
  - 2019 was the last year in which non-adjusted ACS data were used for PEP.
- Net air passenger totals, in conjunction with ACS/PRCS, used for the 2021 PEP estimate of U.S. and Puerto Rico migration (not shown).
- Is this an example of **nowcasting**? Reduces previous one-year data lag down to one month in some cases. Future applications can project months and quarters but not weeks or days.
- Allows us to adjust preliminary PEP trends for more recent changes that impact certain categories of migration for a given month, quarter, or year. ACS does not have immigrant categories.
- This is an example of macrolevel data integration in which aggregate data from multiple sources are combined to produce a practical estimate. Current research on the **Integrated Database for International Migration (IDIM)** examines microlevel integration, using individual-level and internal-use federal administrative data to measure migration by subnational geographic and demographic detail.

## Contact

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