Immigration and the Pandemic Recovery
Current and Future Issues

ECONOMIC OUTLOOK SYMPOSIUM
FEDERAL RESERVE BANK OF CHICAGO
DECEMBER 1, 2023

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Immigration and the labor market in the post-pandemic recovery

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Immigration rebound in Current Population Survey

Estimated Foreign-Born Population

Blue Slope: 0.0729
Green Slope: 0.1504

Source: CPS via IPUMS
Nonresponse bias

Coronavirus Infects Surveys, Too: Survey Nonresponse Bias and the Coronavirus Pandemic

Jonathan Rothbaum
U.S. Census Bureau

Adam Bee
U.S. Census Bureau
May 3, 2021

Abstract
Nonresponse rates have been increasing in household surveys over time, increasing the potential of nonresponse bias. We show that survey nonresponse was unique during the pandemic: Nonresponse increased substantially and was more strongly associated with income than in prior years. Response patterns changed by education, Hispanic origin, and citizenship and nativity. In the 2020 CPS ASEC, nonresponse biased income estimates up substantially, whereas in other years, we do not find evidence of nonresponse bias in income or poverty statistics.
Nonresponse bias

Could nonresponse bias affect estimates of the size of the foreign-born population?

What happened to nonresponse by foreign-born status?

What happened to the weights?
Respondents and their weights

Sample Count February 2020 Baseline Comparison by Birthplace

Mean Weight February 2020 Baseline Comparison by Birthplace

Source: CPS via IPUMS
Something changed....

Mean of Residuals by Birthplace and Model Specification

- Mean of Residuals by Birthplace and Model Specification
- US-Born: Main Residual
- Foreign-Born: Main Residual
- US-Born: FB Model Residual
- Foreign-Born: FB Model Residual

Source: CPS via IPUMS
2010m1 through 2023m10. FB Model Includes All 7 Covariates
How much does it matter?

What if weights for foreign born responded to nonresponse similarly to the weights for the native born?

What would we estimate the size of the foreign-born population to be?

Note: we are not suggesting this is the *right* count.
The weights make a big difference

Foreign-Born Weight Elasticity-Adjusted and Estimated Foreign-Born Population

Foreign-Born Weight Elasticity-Adjusted Population Difference: 1.313 Million

Source: CPS via IPUMS
## Estimating using Administrative Sources

### Panel A: CPS and Model Foreign-Born Population Change (Thousands)

<table>
<thead>
<tr>
<th>4-Month Period</th>
<th>Immigrant Visas</th>
<th>Non-Immigrant Visas</th>
<th>Apprehensions</th>
<th>Inadmissibles</th>
<th>Asylees</th>
<th>Refugees</th>
<th>Deaths</th>
<th>Model Change in FB Pop.</th>
<th>CPS Change in FB Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 2020 - Jan 2021</td>
<td>42</td>
<td>544</td>
<td>38</td>
<td>72</td>
<td>9</td>
<td>4</td>
<td>100</td>
<td>-18</td>
<td>-1</td>
</tr>
<tr>
<td>Feb 2021 - May 2021</td>
<td>86</td>
<td>924</td>
<td>212</td>
<td>79</td>
<td>6</td>
<td>4</td>
<td>99</td>
<td>114</td>
<td>1425</td>
</tr>
<tr>
<td>Jun 2021 - Sep 2021</td>
<td>171</td>
<td>1328</td>
<td>371</td>
<td>112</td>
<td>6</td>
<td>4</td>
<td>99</td>
<td>285</td>
<td>-542</td>
</tr>
<tr>
<td>Oct 2021 - Jan 2022</td>
<td>143</td>
<td>1538</td>
<td>309</td>
<td>119</td>
<td>4</td>
<td>4</td>
<td>99</td>
<td>227</td>
<td>877</td>
</tr>
<tr>
<td>Feb 2022 - May 2022</td>
<td>167</td>
<td>2438</td>
<td>398</td>
<td>162</td>
<td>6</td>
<td>6</td>
<td>99</td>
<td>311</td>
<td>1009</td>
</tr>
<tr>
<td>Jun 2022 - Sep 2022</td>
<td>207</td>
<td>2851</td>
<td>454</td>
<td>222</td>
<td>6</td>
<td>6</td>
<td>99</td>
<td>384</td>
<td>318</td>
</tr>
<tr>
<td>Oct 2022 - Jan 2023</td>
<td>181</td>
<td>3034</td>
<td>505</td>
<td>286</td>
<td>6</td>
<td>6</td>
<td>99</td>
<td>386</td>
<td>1201</td>
</tr>
<tr>
<td>Feb 2023 - May 2023</td>
<td>218</td>
<td>3917</td>
<td>371</td>
<td>359</td>
<td>6</td>
<td>6</td>
<td>100</td>
<td>367</td>
<td>519</td>
</tr>
<tr>
<td>Jun 2023</td>
<td>52</td>
<td>955</td>
<td>101</td>
<td>111</td>
<td>2</td>
<td>2</td>
<td>34</td>
<td>85</td>
<td>-537</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1267</strong></td>
<td><strong>17529</strong></td>
<td><strong>2758</strong></td>
<td><strong>1522</strong></td>
<td><strong>53</strong></td>
<td><strong>42</strong></td>
<td><strong>827</strong></td>
<td><strong>2142</strong></td>
<td><strong>4268</strong></td>
</tr>
</tbody>
</table>

### Panel B: Model Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Immigrant Visa Stay Rate</th>
<th>Non-Immigrant Visa Stay Rate</th>
<th>Border Apprehension Stay Rate</th>
<th>Inadmissible Stay Rate</th>
<th>Asylum Stay Rate</th>
<th>Refugee Stay Rate</th>
<th>Death Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1</td>
<td>0.0121</td>
<td>0.5</td>
<td>0.01</td>
<td>1</td>
<td>1</td>
<td>0.00225</td>
</tr>
</tbody>
</table>
Comparisons between ACS and CPS

Immigrants in the Last Year

Source: ACS and CPS via IPUMS
Why does this matter?
Why does this matter?

Current issues

Future issues
Why does this matter?

Current issues
- Immigrants have high labor force participation
- Some sectors have high shares of immigrant workers
- Those sectors have been especially tight in recent years
Labor force participation rates

Source: CPS via IPUMS
Share foreign born

Industry Foreign-Born Share

Overall percent of labor force

Share FB (2017-2018)

Industry

- Arts and Food
- Construction
- Education
- Finance
- Health Care
- Information
- Manufacturing
- Mining
- Professional
- Public Admin
- Retail Trade
- Transportation
- Utilities
- Wholesale Trade
Labor markets are tighter in immigrant-intensive sectors

Source: CPS via IPUMS, JOLTS
Growth = 100*(post - pre)/pre.
Why does this matter?

Current issues

- Immigrants have high labor force participation
- Some sectors have high shares of immigrant workers
  - Those sectors have been especially tight in recent years

Future issues

- The baby boom is approaching 80!
The Baby Boom is aging

Source: Butcher and Watson (2019), Peterson Foundation US 2050 project.
Oldest Boomers are turning 78; Youngest are turning 60

Disability Prevalence By Age

Source: Authors’ calculations 2017 American Community Survey
GROWING SHARE OF FOREIGN-BORN WORKERS
In overall workforce and select occupations, 1980-2019

Note: The population represented consists of employed workers aged 16-64. Home health aides are a subset of health aides and are defined using a combination of the Census and ACS occupation and industry codes.
Effects of aging of the baby boom

- 87% of elderly reported (pre-pandemic!) that they would rather “age-in-place” than be in a nursing home.
- At 65, 4% of people report needing help with “self-care.”
- At 90, it is 40%.
- Caregiving burden will increase: Parental health shocks have significant negative effects on adult children’s labor market activities; particularly daughters and those who live near by. (Frimmel et al. (2020))
- Costly: 8 percent of total U.S. healthcare spending ($286.2B) spent on nursing facilities and home health care in 2019 (CMS 2020).
Why does it matter?

Current issues

- Immigrants have high labor force participation
- Some sectors have high shares of immigrant workers
  - Those sectors have been especially tight in recent years
- Perhaps there is more supply-side repair to come?

Future issues

- The baby boom is approaching 80!
- Research finds that immigration both reduces the likelihood of native-born elderly living in institutions, and improves health outcomes when they are in institutions.
Thank you.
Research Overview

- “Immigrant Labor and the Institutionalization of the U.S.-born Elderly,” Kristin Butcher, Kelsey Moran, Tara Watson
- “Immigration and Tomorrow’s Elderly,” Kristin Butcher and Tara Watson, Peterson Foundation US 2050 project

Summary of Findings:
- The baby boom will have profound effects on caregiving needs.
- In places that have received more (low-education) immigration, the U.S.-born elderly are less likely to live in institutions.
The Baby Boom is Aging

Projected 80+ year-olds by year

The Baby Boom is Aging

Older Age Group Relative to Working Age Population
(15-64)

YEAR 2016

YEAR 2050

Source: Census Bureau Projections
Effect of Immigration on Institutionalization of the Elderly

- Causal Story:
  \[
  \text{immigrant share} \uparrow \rightarrow \text{caregiver supply} \uparrow \rightarrow \text{institutionalization} \downarrow
  \]

- Non-Causal Story:
  \[
  \text{economic shock} \rightarrow \text{immigrant share} \downarrow \rightarrow \text{institutionalization}
  \]
Methodology: Shift-Share Instrument

- Use prior immigrant settlement patterns to predict current share of working age population that is less-educated foreign-born (Bartel (1989), Altonji and Card (1991), and many others).

- \( BaseShare_{jz70} = \frac{ImmPop_{jz70}}{ImmPop_{j70}} \)

- \( PredictedLEImmWAPop_{jzt} = BaseShare_{jz70} \times LE~Imm~WAPop_{jt} \)

- \( PredictedShareLEImm_{zt} = \frac{\sum_j PredictedLEImmWAPop_{jzt}}{WAPop_{zt}} \)
Figure 4. Predicted Change in Share Less-Educated Immigrant, 1980-2000.
We find

- Places with (exogenous) increases in low-education immigrant share had lower institutionalization among the elderly
  - A 10 percentage point increase in less-educated foreign-born labor share reduces institutionalization among the native-born elderly by 1.5 and 3.8 percentage points for those 65+ and 80+, respectively – a 26-29 percent effect relative to the mean.
  - These estimates imply that a typical U.S.-born individual over 65 was about 10 percent (0.5 ppt) less likely to be living in an institution than would have been the case if immigration had remained at 1980 levels.
Other research finds complementary evidence

- After reforms that allowed in more foreign care workers (in Austria) effect of parental health shock on adult children’s labor supply was muted. (Frimmel et al. (2020))

- Among the elderly who are in institutions there are better health outcomes in places with an increase in low-education immigrant share of the workforce (Furtado and Ortega 2020; Grabowski et al. 2020)
  - Consistent with Stevens et al (2015) procyclicality of mortality

- Immigration of people with low-levels of education reduces the chances of the U.S.-born elderly being in institutions, and if they are in institutions, improves their health outcomes.
Comparisons between CPS and ACS

Note: 2023 CPS counts are annualized from the first 10 months

Source: ACS & CPS

CPS  ACS (non-institutional)
Note: 2023 CPS counts are annualized from the first 10 months.