Econ 196 Lecture

The Economics of Immigration

David Card
Main Questions

1. What are the characteristics of immigrants (and “second generation” immigrants)?

2. Why do people immigrate? Does that help explain the characteristics of immigrants?

3. How does immigration affect the labor market?

4. Do immigrants “assimilate” once they arrive?

5. How does the second generation do?
Question 1

How many immigrants are there, where do they come from, where do they live....

Currently, US has about 14% immigrants
11% “second generation”

The main sources: Mexico 31%
other Latin Am. 23%
Asia 27%
Europe 13%
r.o.w. 6%
Fraction of Immigrants in Various Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Today</th>
<th>10 Years Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>13.6</td>
<td>10.8</td>
</tr>
<tr>
<td>Australia</td>
<td>25.0</td>
<td>23.2</td>
</tr>
<tr>
<td>New Zealand</td>
<td>21.6</td>
<td>16.5</td>
</tr>
<tr>
<td>Canada</td>
<td>20.1</td>
<td>17.8</td>
</tr>
<tr>
<td>Ireland</td>
<td>15.7</td>
<td>7.8</td>
</tr>
<tr>
<td>Austria</td>
<td>14.2</td>
<td>11.2</td>
</tr>
<tr>
<td>Spain</td>
<td>13.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Sweden</td>
<td>13.4</td>
<td>11.0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>10.7</td>
<td>9.6</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>10.2</td>
<td>7.4</td>
</tr>
<tr>
<td>France</td>
<td>8.5</td>
<td>7.3</td>
</tr>
</tbody>
</table>
Distribution of Population: 1st Gen, 2nd Gen, 3rd+ Gen
On average:

- immigrants are younger, less educated
- immigrants earn less
- immigrants are concentrated in a few states

BUT:

- immigrants are “more diverse” than natives
- immigrants are over-represented in the “tails” of the education and earnings distributions

- characteristics are very different for Latin Am. immigrants and other immigrants
<table>
<thead>
<tr>
<th>Characteristics of Adults by Generation</th>
<th>1st Generation</th>
<th>2nd Generation</th>
<th>3rd+ Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>Years Education</td>
<td>12.2</td>
<td>12.4</td>
<td>14.0</td>
</tr>
<tr>
<td>BA Degree (%)</td>
<td>29.0</td>
<td>30.0</td>
<td>36.8</td>
</tr>
<tr>
<td>Advanced Degree (%)</td>
<td>12.2</td>
<td>10.0</td>
<td>13.1</td>
</tr>
<tr>
<td>Hispanic (%)</td>
<td>52.6</td>
<td>45.8</td>
<td>32.7</td>
</tr>
<tr>
<td>Black (%)</td>
<td>8.6</td>
<td>9.7</td>
<td>4.4</td>
</tr>
<tr>
<td>Asian (%)</td>
<td>21.6</td>
<td>25.6</td>
<td>10.5</td>
</tr>
<tr>
<td>Work Last Year (%)</td>
<td>83.2</td>
<td>61.8</td>
<td>82.2</td>
</tr>
<tr>
<td>Hourly Wage</td>
<td>22.28</td>
<td>18.54</td>
<td>27.91</td>
</tr>
<tr>
<td>Poor (%)</td>
<td>13.2</td>
<td>16.3</td>
<td>6.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Natives</th>
<th>All</th>
<th>Hispanic</th>
<th>non-Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Years Education</td>
<td>13.7</td>
<td>12.3</td>
<td>10.2</td>
<td>14.3</td>
</tr>
<tr>
<td>Dropouts (%)</td>
<td>7.9</td>
<td>30.0</td>
<td>50.3</td>
<td>9.8</td>
</tr>
<tr>
<td>High School Grads (%)</td>
<td>31.1</td>
<td>24.6</td>
<td>26.8</td>
<td>22.4</td>
</tr>
<tr>
<td>Some College (%)</td>
<td>29.3</td>
<td>16.1</td>
<td>12.7</td>
<td>19.5</td>
</tr>
<tr>
<td>College or More (%)</td>
<td>31.6</td>
<td>29.5</td>
<td>10.2</td>
<td>48.2</td>
</tr>
<tr>
<td>Advanced Degree (%)</td>
<td>10.6</td>
<td>11.1</td>
<td>2.6</td>
<td>19.4</td>
</tr>
</tbody>
</table>

### Geographic Distribution of Natives and Immigrants

<table>
<thead>
<tr>
<th>State</th>
<th>Share of US Population</th>
<th>Share of Immigrants</th>
<th>Composition of Population:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1st Gen.</td>
</tr>
<tr>
<td>All US</td>
<td>100.0%</td>
<td>100.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>California</td>
<td>9.5%</td>
<td>22.6%</td>
<td>28.8%</td>
</tr>
<tr>
<td>Texas</td>
<td>5.7%</td>
<td>8.0%</td>
<td>16.9%</td>
</tr>
<tr>
<td>New York</td>
<td>4.3%</td>
<td>7.8%</td>
<td>22.0%</td>
</tr>
<tr>
<td>Florida</td>
<td>4.0%</td>
<td>7.1%</td>
<td>21.5%</td>
</tr>
<tr>
<td>Illinois</td>
<td>3.1%</td>
<td>3.7%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>2.9%</td>
<td>1.2%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Ohio</td>
<td>2.6%</td>
<td>0.8%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Michigan</td>
<td>2.4%</td>
<td>1.2%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Maryland</td>
<td>2.3%</td>
<td>2.9%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>2.3%</td>
<td>1.5%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Georgia</td>
<td>2.2%</td>
<td>2.0%</td>
<td>10.9%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>2.2%</td>
<td>4.2%</td>
<td>23.2%</td>
</tr>
</tbody>
</table>
Question 2 – Why do people immigrate?

Economic model:
- compare potential income in destination country to income in home country. Gain = G

- compare G to the “costs”:
  loss of family/cultural connections
  cost of visa or illegal entry (coyote)

- gains G to entering the US vary depending on source country and “skill” level of person
Potential Gains From Immigration by "Skill" Level

Earnings in US more "unequal", return to immigration negative for lower-skilled
Potential Gains From Immigration by "Skill" Level

Earnings in US less "unequal", return to migration positive for all groups.
Insights:

- immigrants from Europe, Canada (who can enter relatively easily) are highly educated. Lower skilled are better off “at home”

- most people in developing countries (e.g. India) have large potential gains. BUT visas are highly restricted (need MA for H1-B)

- immigrants from Mexico and Latin Am are much lower skilled. Many are undocumented and can avoid the cost of a visa.
Gains from Immigration for Canadian Men - 2000

Log Weekly Wage in Canada

Log Weekly Wage in US

45°
Question 3. Labor market impacts?

Most people assume a “fixed supply of jobs” model:
- N jobs available, each immigrant steals 1 job
This is a TERRIBLE model!

A basic “economic” model
- \( y = f(L,K) = \theta L^\alpha K^{1-\alpha} \) Cobb Douglas production

2 (or more) types of labor, perfect substitutes:
- \( L = a_1 L_1 + a_2 L_2 \) \( a_1, a_2 = “efficiency units” \)
- \( w_1 = a_1 \frac{\partial f}{\partial L}, w_2 = a_2 \frac{\partial f}{\partial L} \Rightarrow w_1/w_2 = a_1/a_2 \)
\[ \text{MP}_L = \frac{\partial f}{\partial L} = \theta \alpha [K/L]^{1-\alpha} \quad \text{depends on } K/L \]
\[ \text{MP}_K = \frac{\partial f}{\partial K} = \theta (1-\alpha) [K/L]^{-\alpha} \]

- if capital cost = \( r \) is fixed (perfectly elastic)
  then \( \frac{\partial f}{\partial K} = r \Rightarrow K/L \) is constant

Implications
- assuming \( K \) can adjust, wages do not vary with supply of labor (demand curve is flat)

- relative wages determined by “technology” and do not depend on \( L_1/L_2 \)

- in the short run \( (K \text{ fixed}) \) wages may fall if \( L \) is increased
More general models

If different types of labor are “imperfect” substitutes then:
- wages of different groups depend on the relative size of each group and on K/L
  e.g. $w_1/w_2$ varies (inversely) with $L_1/L_2$

- how many “skill types”?
  2 groups ( < BA, BA+)?
  many groups?
What do we know?

1. immigrants are clustered in selected cities
   Average MSA = 18% immigrant workers
   Los Angeles = 48%   Miami = 62%
   Atlanta = 12%       Pittsburgh = 3%

2. higher presence of immigrants is associated with a greater share of low-education workers. (the “skating rink” model is wrong)

3. wages of lowest-skilled natives are not much lower in high-immigrant cities
Is there a "Skating Rink" Effect? Fraction of Immigrant Dropouts vs Overall Fraction Dropouts

Note: line with slope = 1 shown
Does More Immigration Cause Lower Wages for Low Skilled Natives?

![Graph showing the relationship between the fraction of immigrants in the local adult population and the mean log wage of native male dropouts across different cities. The graph includes cities such as Miami, McAllen, Brownsville, El Paso, Chicago, Los Angeles, Jersey City, and NYC. The x-axis represents the fraction of immigrants in the local adult population, while the y-axis represents the mean log wage of native male dropouts. The data points are scattered across the graph, indicating a potential relationship between immigration levels and wage outcomes.]
Other research designs

- observational comparisons across cities may be confounded

a) Mariel Boatlift
-provided a large “shock” to Miami labor market (approximately 60-70,000 new residents, a 7% increase in labor force)
-no measurable effect on wages for black or Hispanic workers in Miami relative to 4 comparison cities (Atlanta-Houston-LA-Tampa)

-similar results: Portugal, France
b) Enclave strategy

- new immigrants go to the same cities are earlier immigrants from the same country

→ predicted inflow = total US arrivals × earlier share

eample: Filipinos (2\textsuperscript{nd} largest US immigrant group) still go to the “navel base” cities

- provides an “exogenous” supply shock (?)

- results confirm simpler cross-city comparisons
The Enclave Effect: Relative Shares of Filipino Immigrants in Major Cities

![Graph showing relative shares of Filipino immigrants in major cities.](image-url)
The Enclave Strategy: Wage of Native Dropouts vs Predicted Relative Inflow of Immigrant Dropouts

Predicted Inflow Ratio: Dropout vs. High School Immigrants

Wage of Dropouts - HS Grads

national average
Conclusions

- selective immigration flows create “skill imbalances” in different cities

- this imbalance has little/no effect on relative wages (or average wage levels)

- immigrants are successfully absorbed in the local industry structure with (at most) small spillovers on native wages
Question 4. Wage assimilation?

- at arrival, immigrants may have poor language skills, lack of “connections” to good jobs

- measured average wages rise with time in the country

- but some of the apparent rise may be due to return migration of less successful immigrants

- “refugee” immigrants appear to spend more time in school when they arrive, and have faster growth that “economic” immigrants
Is There "Wage Assimilation"? Wage Profiles of Mexican Immigrants

Years Since Arrival

Mean Log Hourly Wage (1999 $)

Men 2000
Men 1990
Women 2000
Women 1990
Question 5. What about the second generation?

- 20% of US children under 5 are 2\textsuperscript{nd} generation
- in California – 50%

- 2\textsuperscript{nd} generation are important part of the costs and benefits of immigration
  - 2\textsuperscript{nd} gen go to school in US, commit crimes...
  - 2\textsuperscript{nd} gen pay taxes...

- on average 2\textsuperscript{nd} generation do pretty well. But what about the children of Latin American immigrants?
Useful framework

\[ Y_{\text{child}} = \alpha + \beta Y_{\text{parent}} + e \]

\( \beta = \) intergenerational correlation

when \( \beta = 1 \), children “replicate” their parents

Height: \( \beta = 0.4 \)   Galton’s original “regression"
BMI: \( \beta = 0.4 \)

Among native families, \( \beta = 0.4 \) for education

How does this compare for immigrant families?
Father-Son Intergenerational Correlation in Education

Average Education of Sons vs. Education of Fathers

- Mexico
- Natives
- India