The economics of immigration: an overview

Timothy W. Guinnane
Department of Economics, Yale University
Why we care

• Immigration is an issue facing many developed economies

• Economic questions always part of the debate, although sometimes masking other issues

• Goal today:
  • Overview of the basic economic issues
  • Summary of what we know for the U.S.
Two distinct questions

- The economic aspects of a decision to migrate to the U.S.
- The economic effect of those decisions on the U.S.

Focus today on second issue
  - But the separation is slightly artificial
  - Why people migrate is connected to who migrates, which has something to do with how those migrants affect the U.S.
What kinds of effects?

- Public finance
  - Tax revenue
  - Demand for public services
- The labor market: wages and employment
Two questions that are rarely asked

- Why do we care about immigrants, and not other ways of “producing” Americans

- All the “bad” effects of immigration can have other sources. But we tend to ignore them unless they are related to immigration
Immigrants are just people

- Divide people in the U.S. into categories
  - Folks born here and living where they were born (for example, Pennsylvania)
  - Folks born here but living in another place (Iowa-born people in Pennsylvania)
  - Folks born in another country

- How can being an immigrant to the U.S. make a difference?
  - Ways to get an 18 year-old in Pennsylvania
    - The person is born in the Pennsylvania, remains there
    - The person is born elsewhere in the U.S., moves to Pennsylvania
    - The person immigrants from another country
  - Important to be clear on “immigration” versus “other sources of population growth”

Immigration in levels

Population in millions; net immigration in thousands

Population in millions; net immigration in thousands

Population

Net immigration

Year

1800
1850
1900
1950
2000

0
500
1000
1500

0
500
1000
1500

Net immigration scaled to population size

Population

Year

Net immigration scaled to population

- Population
- Net immigration scaled to population

[Graph showing population and net immigration trends from 1800 to 2008]
Immigration as a Proportion of Population Growth
So immigration is different from population growth IF

- If immigrants are different from others:
  - Older
  - Younger
  - More or less educated
  - More or less likely to have a family

- They are different, in important ways. But be clear on the differences
Differences among migrants

- Arise out of the sending country and/or the way U.S. immigration policy treats them
  - Some countries send more educated adults
  - Some provide workers who stay only a brief period
  - Some groups more likely to have children than are others

- Arise out of immigrant self-selection:
  - If immigration driven by long-term poverty, then one type of immigrant
  - If immigration driven by political upheaval, then different folks come
Age-distribution of native versus foreign-born, 2015

- Under 16
- 18 to 64
- 65 years and older

Native-born
Foreign-born
Labor-force participation rates

- Native-born, about 65 percent
- Foreign-born, about 69 percent
- (For people 25 years old and older)
Educational attainment

- This, and some other characteristics, reflect US policy: easier to get in if person is educated

- Percentage of people 25 and above with a high-school diploma
  - Native-born, 89 percent
  - Foreign-born, 68 percent

- But in some areas, foreign-born more educated than natives:
  - 32 percent of all 25 and over an engineering degree foreign-born
  - 27 percent in computer science and math
Only caring about something that arises in the context of immigration policy

- There are doubtless some “bads” associated with immigration

- But we usually ignore them except for talking about immigration

- Important example: income inequality and effects on low-wage workers
  - Immigration of low-skilled workers might reduce wages of working poor natives. (Evidence is unclear)
  - But as a society we rarely show much interest in the working poor
Public finance: taxes and spending

- Immigrants pay taxes and require public services, like everyone else

- Issue:
  - Do they pay more or less in taxes, on average, than a native?
  - Do they require more or less in public services, on average, than a native?

- Only if different from natives
More or less?

- If immigrants are just more people, then
  - Will pay more in taxes
  - Will require more services
  - Just like natives

- If immigrants tend to be different, then can see differences
  - Immigrants more likely working-age adults. Pay more taxes and require fewer services than average
  - The data show: documented immigrants on average look like other Americans in per-capita tax payment and use of services
  - For undocumented immigrants, contribution even larger: they do not file tax returns and are reluctant to expose themselves to agencies that provide services
“On average”

- Throughout I have used the phrase “on average”
  - An aggregated approach to the issue
  - Treating all immigrants as the same, and the U.S. as one huge entity

- This is not true, of course. Get more subtle effects via
  - Differences among migrants
  - Concentration of immigrants in particular places
  - Sub-groups of natives
Some insights from Econ 105

• Who – among the natives – wins and loses from immigration?

• The basic insight:
  • If I own something for which immigrants are complements, they probably benefit me
    • Capital
    • Land
    • Skilled labor (?)
  • If I own something for which immigrants are substitutes, they probably hurt me
    • Unskilled labor

• But:
  • Most of us own more than one thing (labor plus property)
  • The magnitudes here could be small. Effect always empirical question
Consider the effect on unskilled workers

- Assume a production function $Q = Q(L_U, L_S, K, T)$

- Inputs:
  - Unskilled and skilled labor
  - Capital (K)
  - Resources/energy T

- The demand for any one factor depends on
  - Prices of that and all other factors
  - Substitutability of the factors
Effect of a lot of new unskilled workers

- An increase in supply

- Effect on their wages depends on demand elasticity
  - Can firms find ways to produce their output using more unskilled labor and less of the other inputs?
  - If not, then will see larger wage effects for unskilled

- More subtle effect: product demand
  - Immigrants buy stuff, too
  - Their purchasing power might offset downward pressure on wages for some products or areas
Effect of foreign-born engineers

- Their labor is complementary to a lot of lower-skilled labor:
  - A production worker cannot work if there is nobody to design the product and process
  - So if engineers are complements to production workers, immigration of engineers raises the wages of production workers

- Effect on native engineers may be different
  - If the immigrant is a pure substitute for me, then the logic for unskilled workers applies
  - But if immigrants have skills that are slightly different and are complementary to mine...
“Americans won’t do that job”

- Claim is need immigrant labor for some jobs because Americans will not do it.

- What does this mean?
  - Right question is counter-factual.
  - If cut-off immigration, what would happen in this area.

- Go back to production function. Consider two types of labor: immigrants and natives
  - If immigrants no longer available, reduction in labor supply curve
  - Should raise wages for natives in this area. Will they do the job for twice what the immigrants were paid?
  - Would also expect to see other changes:
    - More mechanization (capital substituting for labor)
    - Maybe an increase in product price

- Perhaps the story is: natives will not pick tomatoes for the wages immigrants will pick tomatoes
But consider engineers as tomato-pickers

- In Silicon Valley, the following complaint:
  - Visa rules make it too easy for Google etc. to shop for foreign engineers
  - This reduces wages for natives engineers
  - Who wants to become an engineer if it does not pay?

- Note that in this case, Google has an alternative:
  - Have the work done in India and emailed to the U.S.
  - Same effect on U.S. engineers, no need for a visa
  - This is like importing tomatoes
Add in international trade

- In general, trade can mimic the effect of “factor flows” such as migration

- Example:
  - U.S. can produce its own tomatoes
  - But U.S. consumers can buy Mexican tomatoes

- The effect (on labor markets in the U.S.) is very similar.
What most studies find

- Looking at wages:
  - Effect on low-skill natives small but mostly negative
  - Effects for better-paid natives unclear; perhaps none at all

- Employment effects may be worse:
  - For low-skill natives, increased immigration may reduce employment
  - Efforts to view employment issue for more highly-skilled natives are not conclusive.
The difficulty of empirical work in this area

- Want to have “shocks” to the number of immigrants that are exogenous
  - Not driven by changes in wages or employment
  - Not reacting to technological changes that shift the kind of workers needed

- Problem:
  - We want to see what happens to the quantity of labor demanded when we shift the supply curve alone
  - U.S. immigration policy designed to frustrate this
  - In general, immigration policy makes it hard to study the effect of immigration policy
One “natural experiment”

- In 1980, 125,000 Cubans moved to the U.S. in a period of four months
- About half went to and stayed in Miami
- This is a “political” shift in the supply curve.
  - Outcome of conflict between Cuba and US.
  - Miami did not “demand” these workers.
- Effects on wages:
  - For native whites and African-Americans, almost none
  - For Cubans, a steady but small decline for a few years
  - Suggests Cubans are close substitutes for Cubans, but not for natives
Does Mariel yield a general lesson?

- **Pro:**
  - The episode is pretty “clean.”
  - Results clear; I believe it happened this way

- **Con:**
  - Cubans in Miami... this may be the best possible case for finding small labor-market effects
  - Later studies of Mariel suggest unusual effect: presence of Mariel refugees increased demand, offsetting effect on wages
If immigration affects the wages of U.S. natives, it is for the low-skilled

For these people, past 3-4 decades have not been good
- At most modest increases in real wages since 1973.
- Changes in taxation and public services may imply absolute declines

Effect of trade liberalization:
- Reduces prices of goods in the U.S.
- But imports embody foreign labor. Effect particularly strong for production workers

If we want to worry about the economic effects of immigration, this is the place to start
Workers produced much more, but typical workers’ pay lagged far behind
Disconnect between productivity and typical worker’s compensation, 1948–2013

Note: Data are for compensation (wages and benefits) of production/nonsupervisory workers in the private sector and net productivity of the total economy. "Net productivity" is the growth of output of goods and services less depreciation per hour worked.

Source: EPI analysis of Bureau of Labor Statistics and Bureau of Economic Analysis data
Updated from Figure A in Raising America’s Pay: Why It’s Our Central Economic Policy Challenge
But if we are really concerned about “immigrants”

- Many areas of policy where could do a better job for the natives, too

Example:
- Some school systems burden by lots of kids who do not speak English
- Maybe the answer is to provide better support for public education

Example:
- Perhaps some immigrant flows reduce wages for low-skill workers
- Maybe the answer is tax and other policies that affect low-skill workers