Immigration and The Economic Crisis: Does recession make a Difference?

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Conference on Population, Integration and the law

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Does recession make a difference in thinking about immigration to the US?

- 1) Effect of recession on Immigrant flows
- 2) Effects of Immigration on jobs and productivity in the short and long-run. Does Recession make a difference?
- 3) Immigrants and the welfare state: can they help with the deficits?
  - Snapshot versus dynamic gains-costs
  - Age-profile and aging society
- 4) Immigrants and the Public Opinion
  - Does recession have an effect on Public Opinion towards Immigrants?
  - Do economic effects of immigrants matter much for opinions?
The net inflow of Immigrants increases and decreases with employment opportunities

- Estimates say: for each loss of 100 jobs 10 fewer immigrants enter the country (or 10 more leave).
  - This “rule” has been estimated in several historical instances (Hatton and Williamson 2009) and seems to hold in the recent years for the US as well.

Data on immigrants include all foreign-born including undocumented

Recession and Immigrants
Difference Between net immigration and number of visa or new permanent residents

• While the net immigration rate responds to economic and labor market conditions the number of visas and new permanent residents, are insensitive to it.

  – Margins of adjustment to economic conditions are the return of immigrants (length of stay) and irregular immigrants.
  – Immigrant Visas H1A-H2A and H1B have a fixed number (cap)
  – New permanent residents permits have essentially no link to the economy.

Slope - 0.01
Std. error 0.02

Recession and Immigrants
At the state level?

- There is also evidence that immigrant respond more than natives to relative employment shocks across states (Borjas, Brookings Papers, 2001).

- States that loose more jobs see more immigrants (than native) leave. Immigrants are an “automatic” equilibrator of labor markets.

- For every 100 extra jobs lost in California (relative to the rest of the states) 10 immigrants leave and only about 5 natives leave. (Barcellos 2009)
The evolution of the unauthorized Immigrant Population?

Figure 1.


Recession and Immigrants

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In California

- Unauthorized have declined from the peak of 2,890,000 in 2005 to 2,600,000 of 2009 (Hoefer, Rytina, Baker 2009). Undocumented follow the employment cycle more than other immigrants.

- Concentrated in cyclical sectors such as Construction and Manufacturing

- 60% are Mexican
- 15% from other central American countries.
Beyond the short run

• Can the Decline of the last two year be the beginning of a new (opposite) trend in the medium-run?

• Main long-run economic determinant of migration:
  – the sending-receiving country income disparity (+)
  – the income level of sending countries (-)
  – the age profile of sending country (-)
Mexico-US

• Mexico is at 25% of the US income per person with no change of relative income in the last 20 years.

• Mexico has an average level of income per person equal to 11,000 $ (in 2005 prices and PPP). Italy turned from a country of net emigration to one of net immigration in the 70’s at an income per person around 13,000 $.

• The total fertility rate in Mexico (and in most other Latin American Countries) plummeted between 1965 and 2000 from 7 to 2.5 children per woman.
Simulated migration Pressures for given labor demand US-Mexico

Figure 2. Labor Supply Pressures for Mexican Migration to the US

Note: Effect in differences from the 1960 birth cohort, which turns 16 in 1976.

Hanson and McIntosh (2009)
Is the overall trend likely to turn?

- The peak in the size of 16-20 years old cohort was reached in the mid ‘90s (Baby boom).

- Even stronger demographic transition took place in China (1.73), Vietnam (2.14), India (2.65), Nicaragua (2.63). Plus those countries experienced faster economic growth then the US.

- Not all countries are catching-up in income per capita with rich ones, but some large emigration countries (China, Brazil, India, Philippines, may be Mexico) are.

- Will Africa be the next source of International Migrants? High fertility rates, income level below 5,000 $ per person.
Recession and immigration flows

• Slows down the inflow and accelerates the return flow

• Particularly for undocumented, revealing a desirable flexibility of that “system”

• Together with the demographic transition that has occurred and the economic catch-up this may imply also a long-run change in pressures.
Economic effects of immigration: Long Run on Labor Markets

In the long-run (one decade) there is no robust evidence of adverse employment or wage effect of immigrants even for less educated workers. There is, to the contrary some evidence of positive average employment, productivity and investment effects. Census Data.

The positive effects more than compensate in terms of output per worker, employment, output and output per person increase.
How can there be positive wage and employment effects?

• Immigrants are concentrated among higher education and no degree. Their skills complement majority of natives mostly concentrated among high school and some college education (60% of working age population).

• Immigrants with no degree specialize in manual-physical intensive occupations pushing natives (by comparative advantages) to more communication-intensive occupations.

• Stimulate competition, differentiation of products, efficiency and adoption of appropriate technologies. This benefits productivity and job creation for natives. (nice story on the UK Time of today entitled: “Foreigners: they didn’t steal our jobs, they created them”)

Recession and Immigrants
Percentage of Foreign-Born by Skill Group in the USA, 2005

- High School Dropouts: 25.0%
- High School Graduates: 5.0%
- College Graduates: 10.0%
- Masters and Ph.D.'s: 15.0%
- Master/Ph.D.'s working as Managers, Scientists and Engineers: 17.0%
- Nobel Laureates in Natural Sciences (Physicists, Chemistry, Medicine): 27.0%

Skill Groups
Recession and Immigrants
Figure 2
Workers with a High School Degree or Less Education

Recent Immigrants (10 years or less in the country)
Old Immigrants (more than 10 years in the country)
Natives

Recession and Immigrants
How can there be positive wage and employment effects? (continued)

- Immigrants with higher degree specialize in science-technology pushing innovation.

- More skills and workers stimulate investments.
Native and Foreign PhD’s in the US

Figure 1. PhD Degrees Awarded by US Universities and National Origin, 1958-2003

Source: NSF, Survey of Earned Doctorates microdata and, before 1958, National Academy of Sciences (1958). National origin is defined by the country in which an individual went to high school.

Space Race

IT revolution
So In the long run

• There may be overall gains from immigration for natives. They may not be trivial (+0.2% increase in GDP per person for an increase of share of immigrants of 1% of population).

• Gains are unevenly distributed but likely to be distributed as small losses (if any) for less educated, and larger gains for highly educated.
But in the Short-run?

- Change in specialization, investment response, technological adjustment, innovation may take some years to translate into productivity.

- In the short-run there could be crowding-out, more competition, and costs even vis-à-vis long-run benefits.

- How long does it take to adjust? for Employment? for investment? for productivity? This is a question on which we have known very little.
Estimate the impact of immigrants (net immigration)

• On employment, income per worker and then decompose income per worker in capital per worker, productivity, hours per worker

• Use the location of immigrants in 1990 to predict the location in 1994-2009 independently of the demand shock of those states (supply shock of immigrants)

• Track the effect of those supply shocks on the variables in the short and long run (called Instrumental variable strategy) to isolate the effect of immigrants on economic variables.
Short-run and Long-run Impact of immigrants

2SLS estimates 1994-2009, Panel of All US states

<table>
<thead>
<tr>
<th>Explanatory variable is immigration as percentage of initial employment;</th>
<th>1-year changes of immigrant employment IV</th>
<th>2-years IV</th>
<th>4-years IV</th>
<th>7 years IV</th>
<th>10 years IV 1960-2009 period Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \hat{N} ), employment</td>
<td>0.98*</td>
<td>1.69**</td>
<td>0.85</td>
<td>1.18**</td>
<td>1.10**</td>
</tr>
<tr>
<td>( \hat{N} ), employment (nl)</td>
<td>(0.39)</td>
<td>(0.63)</td>
<td>(0.57)</td>
<td>(0.38)</td>
<td>(0.50)</td>
</tr>
<tr>
<td>( \hat{\gamma} ), gdp per worker</td>
<td>0.01</td>
<td>0.05</td>
<td>0.83**</td>
<td>0.63*</td>
<td>0.26**</td>
</tr>
<tr>
<td>( \hat{\gamma} ), gdp per worker (nl)</td>
<td>(0.32)</td>
<td>(0.54)</td>
<td>(0.31)</td>
<td>(0.36)</td>
<td>(0.10)</td>
</tr>
</tbody>
</table>

Decompose the effect on income per worker

| Capital per worker | -0.31 | -0.94* | 0.22 | 0.39 | 0.23* |
| Capital per worker (nl) | (0.29) | (0.53) | (0.49) | (0.32) | (0.12) |
| \( \hat{A} \), productivity | 0.11 | 0.48 | 1.01** | 0.51 | 0.43** |
| \( \hat{A} \), productivity (nl) | (0.47) | (0.62) | (0.57) | (0.58) | (0.12) |
| \( \hat{X} \), Hours per worker | -0.05 | 0.04 | 0.11 | 0.15** | 0.07* |
| \( \hat{X} \), Hours per worker (nl) | (0.12) | (0.12) | (0.08) | (0.07) | (0.02) |

First Stage

<table>
<thead>
<tr>
<th></th>
<th>F-test</th>
<th>7.18</th>
<th>13.62</th>
<th>20.05</th>
<th>25.03</th>
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</thead>
<tbody>
<tr>
<td>F-test</td>
<td>35.98</td>
<td>0.20</td>
<td>0.12</td>
<td>0.31</td>
<td>0.42</td>
</tr>
<tr>
<td>Partial R-square</td>
<td>0.03-0.10</td>
<td>0.03-0.04</td>
<td>0.01-0.11</td>
<td>0.05-0.35</td>
<td>0.10-0.20</td>
</tr>
</tbody>
</table>

| Recession and Immigrants |
|---|---|
| Observations | 714 | 357 | 204 | 102 | 255 |
Separating net inflow in years of expansions or recession

<table>
<thead>
<tr>
<th>Explanatory variable is immigration as percentage of initial employment;</th>
<th>1-year differences</th>
<th>4-year differences</th>
<th>7-year differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Effect if output gap&lt;0</td>
<td>Effect if output gap&gt;=0</td>
<td>Effect if output average gap&lt;0,</td>
</tr>
<tr>
<td>Dependent Variable:</td>
<td>In recession</td>
<td>In Expansion</td>
<td>Effect if output average gap&lt;0,</td>
</tr>
<tr>
<td>$\hat{N}$, employment</td>
<td>0.87 (0.59)</td>
<td>1.04** (0.35)</td>
<td>-0.19 (1.02)</td>
</tr>
<tr>
<td>Total hours</td>
<td>0.71 (0.57)</td>
<td>1.07** (0.45)</td>
<td>-0.34 (1.16)</td>
</tr>
<tr>
<td>Capital per worker</td>
<td>-0.85 (0.73)</td>
<td>0.01 (0.38)</td>
<td>-0.96 (0.86)</td>
</tr>
<tr>
<td>$\hat{A}$ TFP</td>
<td>-0.11 (0.70)</td>
<td>0.26 (0.52)</td>
<td>2.52 (1.22)</td>
</tr>
<tr>
<td>$\hat{y}$, gdp per worker</td>
<td>-0.40 (0.60)</td>
<td>0.23 (0.38)</td>
<td>1.11* (0.59)</td>
</tr>
<tr>
<td>Observations</td>
<td>714</td>
<td>714</td>
<td>204</td>
</tr>
</tbody>
</table>
A Policy Idea

• In the long run immigration produces aggregate gains for natives.

• In the short run generates some small crowding out. However for net immigration in expansion years the short run crowding out effect (on employment, capital per person and productivity) is much reduced.

• So a system that admits more work-based visa in expansion and fewer in recession would maximize the long-run benefits with few (no) short-run costs.

• Need about 500,000 entry per year to keep net immigration to 0 accounting for current return rates.
Immigration and welfare State

• In theory less educated immigrants should be a welfare cost (pay less taxes, use more welfare).

• They are also younger, however, which helps to pay for social security... But they have more children (marginally) which also is good in dynamic terms but higher cost of education.. Which however is an investment that they will repay for.

• Undocumented are not allowed to any mean-tested benefits, some contribute payroll taxes (with fake social security), all pay consumption taxes.
Fiscal Impact

There are large differences in “Snapshot” calculations (current impact of immigrants) and “forward looking” projections (immigrants over the whole lifetime).

Each person as young is a net beneficiary, as adult a net contributor and as old a net beneficiary of the welfare system

— Many assumptions are needed to obtain estimates: use of welfare by immigrants, how we consider education costs, how we treat U.S.-born children, etc.
Estimates

• A National Research Council study of 1997 that finds a negative snapshot impact but a positive lifetime contribution of immigrants is still the most recent, serious cited study.
  – In general highly educated produce a net fiscal surplus while less educated are a net fiscal cost.
  – Young immigrants may have a close to 0 lifetime fiscal net contribution even if they have low education.

• Is there evidence of migrating into welfare (i.e. higher welfare benefit attract less skilled immigrants)?
  – In Europe Razin and Sadka (2009) find more unskilled immigration in welfare-generous countries.
  – in the US Neeraj Kaushal (2008) finds very small or no impact of 1996 welfare reform (reversed by some states) on location of less skilled immigrants
Fiscal Impact: Opinions

• More than the actual impact what matter for politics is the “perceived impact”

• Citizens of states (countries) with large redistributive policies (unemployment benefits, welfare transfers, public provision of health and education) fear more the fiscal Cost of immigration (Hanson, Scheve and Slaughter 2006).
Example of Texas and California 1990’s

- Texas: low safety net and low taxation, a Republican governor (George W. Bush) embraced pro-immigration policies.

- California: progressive income taxes and generous public benefits implied that high income voters induced the republican governor (Pete Wilson) to restrict benefits to immigrants (prop. 187, restricting the use of public health and education to undocumented immigrants, then repealed in 1999).

- The same type of perception may explain the stronger anti-immigration feelings of most Europeans.
Recession has created large deficits

- Would young workers look more attractive as tax payers? (see 2 graphs) They could secure a smoother transition to lower entitlements

- Could an immigration reform that introduces a cost of legalization and a cost for a work permit (revenues for government) look more attractive as source of public revenues?

- Policy proposal: work-permits of immigrants purchased by employees and auctioned by the government so economic conditions will determine prices and total numbers.

- Pressure for selective immigration? High skilled only?
Age profiles of welfare benefits

FIGURE 7.7 Combined estimated age profiles of benefits from all programs by immigrant generation. Note: Data are from the March Current Population Survey, 1994 and 1995. Data have been smoothed on a moving window of 1,000 observations using a local regression smoother.
Age profiles of taxes

FIGURE 7.8  Estimated age profiles of taxes paid by immigrant generation. Note: Data are from the March Current Population Survey, 1994 and 1995. Data have been smoothed on a moving window of 1,000 observations using a local regression smoother.
Recession and Immigration policies

- Public opinion is important.

- Historically people have become more anti-immigration in recessions.
  - US passed the Emergency Quota Act in the deep recession of 1920-1921 (unemployment at 11.7% from 5.2%) after decades of rising immigration.
  - Germany, Belgium and other countries ended the Guest worker programs in the first and second Oil crisis of the 70’s when unemployment hit 2-digits.
  - In Spain (until recently very tolerant of immigrants) the PP is proposing measure to encourage immigrant to leave and toughen enforcement of anti-illegal laws. Spain is having on of the deepest recessions in Europe, unemployment is at 20%.
Plus individual Evidence (from survey-polls)

• Trends in Opinion: less educated, rural, unemployed and older people tend to prefer less immigration.
  – Recession worsen the opinions
  – Demographic trend increases more educated, urban and old having mixed overall effects.

The natural decline of immigrants in the short and medium run may help to “reduce” the issue.

Could be tempting to “wait it out” from a policy point of view.
Do economic factor matter much in overall assessment of how many immigrants to allow?

Most of the difference in opinion about admitting immigrants (across people and EU countries) does not come from their different perception of economic gains-losses (wage and taxes) but their cultural (neighborhoods) perceptions (80%). (Card, Dustmann and Preston, 2009):

- They come from different assessment of the impact of immigrants on neighborhood, schools and workplace (questions about having different language, religion, similar people).

- Expansion and recessions may be much less relevant for opinions than education, age and concentration of immigrant in the neighborhood.
Conclusions

• Recession will decrease inflows particularly of undocumented.

• Recession makes the short-run adjustment more painful, still immigrants are likely to produce long-run gains for the US.

• Make the number of entries dependent on the business cycle.

• Are long-run trends in migration and opinions changing due to global aging and catching-up of emigration countries?

• Opinion will deteriorate a bit in recession but non-economic factors may matter more. Education, age and exposure may be more relevant in affecting opinions than perceived economic effects.