Session 3: Empirical evidence on migrant location choice

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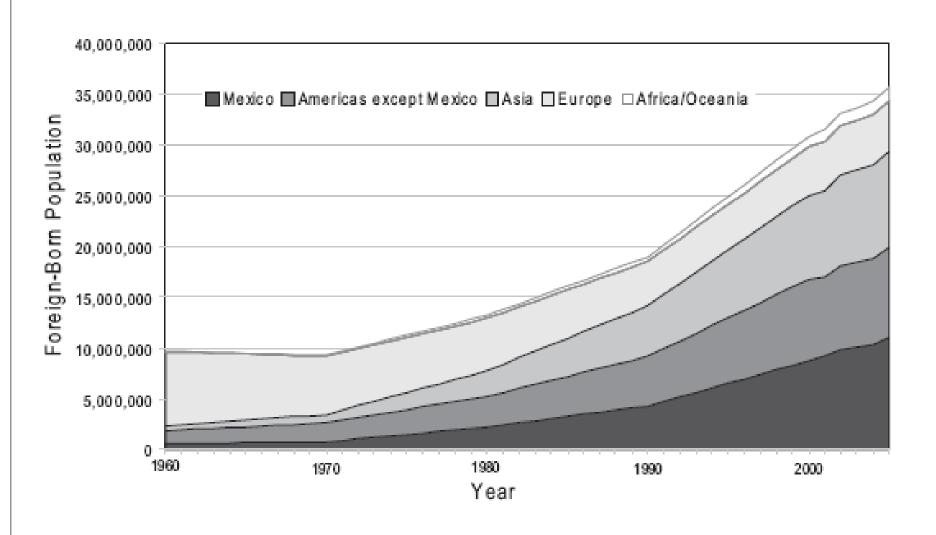
Duke University and NBER

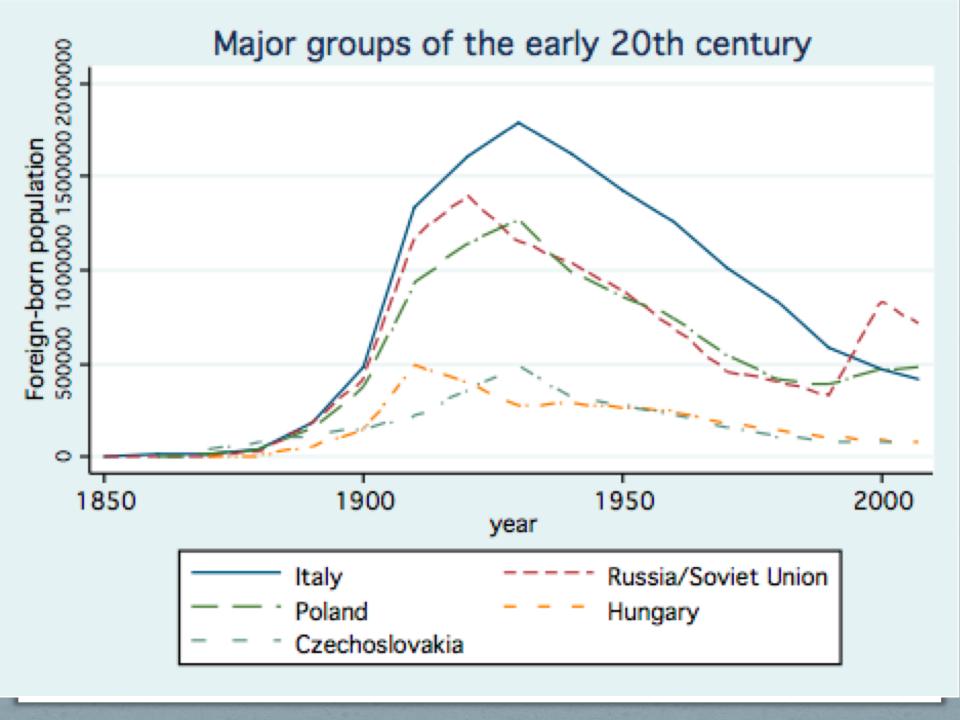
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Outline

- A quick background on recent immigration trends in the US.
- Immigrant destination choice in the US.
- Immigrant destination choice in Europe.
- Tying things together.

Figure I. The Foreign-Born Population of the United States, by Region of Birth, 1960–2005





Interesting facts

- Low education levels of Mexican immigrants are not unprecedented: Italians were similar.
- Italians in 1910 earned more than the native average. They were in cities, where opportunities were.
- Mexican immigrants have earnings far below the native-born average.
- Undocumented immigration: close to one-third of all immigrants lack legal visas.

Motivating questions...

- Will Mexican immigrants and their children form a permanent language minority in the US?
- Are immigrants attracted to high welfare benefits?
- Do ethnically isolated immigrants integrate over time or over generations?

Borjas (1998)

- The ethnic capital model (more tomorrow): human capital determined in part by parental inputs and partly by mean characteristics of the group.
- Data: National Longitudinal Survey of Youth
 - First interviews at age 14-22 in 1979. Restrict sample to those living with parents.
 - Re-interview in 1992.
 - "Neighborhood" is the ZIP code: size of a small town.
- Two empirical exercises
 - Examine intergenerational transmission as a function of neighborhood concentration.
 - Analyze neighborhood choice.

TABLE 3

Relationship Between Cross-Group Spillovers and Ethnic Composition of Neighborhood*

| | Other g modal | roup = group | Other group = mean group | |
|---|------------------|-----------------|-----------------------------|-----------|
| Variable | (1) | (2) | (1) | (2) |
| Interactions between father's education and | | | | |
| proportion of neighborhood's population that | | | | |
| has the same ethnicity | | | | |
| 0% of population has same ethnicity | 0.2609 | 0.1895 | 0.2593 | 0.1874 |
| | (0.0131) | (0.0139) | (0.0130) | (0.0139) |
| Between 0 and 77% | 0.2407 | 0.1803 | 0.2399 | 0.1827 |
| | (0.0098) | (0.0093) | (0.0098) | -(0.0093) |
| Greater than 77% | 0.1204 | 0.1124 | 0.1196 | 0.1129 |
| | (0.0199) | (0.0138) | (0.0198) | (0.0138) |
| Interactions between own-group ethnic capital | | | | |
| and proportion of neighborhood's population | | | | |
| that has the same ethnicity | | | | |
| 0% of population has same ethnicity | 0.1058 | 0.0792 | 0.1023 | 0.1034 |
| | (0.0698) | (0.0390) | (0.0694) | (0.436) |
| Between 0 and 77% | 0.2459 | 0.1037 | 0.2437 | 0.1298 |
| | (0.0721) | (0.0397) | (0.0716) | (0.0461) |
| Greater than 77% | 0.3122 | 0.1344 | 0.3161 | 0.2302 |
| | (0.1094) | (0.1354) | (0.1090) | (0.1431) |
| Interactions between other group's ethnic | | | | |
| capital and proportion of neighborhood's | | | | |
| population that has the same ethnicity | | | | |
| 0% of population has same ethnicity | 0.1412 | 0.0712 | 0.2228 | 0.2079 |
| | (0.0410) | (0.0563) | (0.0503) | (0.0866) |
| Between 0 and 77% | 0.1416 | 0.0636 | 0.2037 | 0.0820 |
| | (0.0311) | (0.0460) | (0.0428) | (0.0832) |
| Greater than 77% | 0.0618 | 0.0572 | 0.0913 | 0.0829 |
| | (0.0412) | (0.0567) | (0.0457) | (0.0595) |
| Includes neighborhood fixed effects | No | Yes | No | Yes |

"Standard errors are reported in parentheses. The regressions use a random-effects estimator that allows for a group-specific component in the error term and have 7894 observations. The regressions control for the respondent's age, sex, immigration status (set to unity if either purent was foreign born), and a dummy variable indicating if the respondent was still enrolled in school in 1990. All regressions also include the dummy variables which indicated the extent of residential segregation in the neighborhood.

Borjas (1998)

- Not a conditional logit specification.
- Dependent variable: do you (as a child/as an adult) reside in a "segregated" neighborhood?

TABLE 4
Determinants of Ethnic Residential Segregation, 1979*

| | Regression | | | | | | | |
|--|---------------------|---------------------|---------------------------------|---------------------|---------------------|---------------------|--|--|
| Variable | (1) | (2) | (3) | (4) | (5) | (6) | | |
| Father's education | -0.0057 (0.0018) | -0.0070 (0.0021) | _ | _ | _ | - | | |
| Father's log wage | _ | _ | _ | ACC 10 ACC 10 ACC | -0.0901 (0.0347) | _ | | |
| Ethnic capital | -0.1587 (0.0286) | _ | _ | -0.1530 (0.0266) | _ | _ | | |
| Group is in lower quartile | _ | 0.4289 (0.0661) | 0.4468 (0.0704) | _ | 0.4284 (0.0753) | 0.5815 | | |
| Group is in upper quartile | _ | -0.0125 (0.0818) | 0.0350 (0.1782) | _ | -0.0187 (0.0888) | 0.0173 | | |
| Interactions between father's education and Group is in lower quartile | _ | _ | -0.0077 | _ | _ | _ | | |
| Group is in 25-75th percentile | _ | _ | (0.0039) -0.0060 (0.0033) | _ | _ | _ | | |
| Group is in upper quartile | _ | _ | -0.0099 (0.0083) | _ | _ | _ | | |
| Interactions between father's log wage and | | | QUAUGAS | | | | | |
| Group is in lower quartile | _ | _ | _ | | _ | -0.1644 (0.0783) | | |
| Group is in 25-75th percentile | _ | _ | _ | | _ | -0.0372 (0.0322 | | |
| Group is in upper quartile | _ | _ | _ | | _ | 0.0650 (0.1520) | | |
| Male | 0.0156 | 0.0169 (0.0106) | 0.0170 | 0.0096 | 0.0091 (0.0143) | 0.0085 | | |
| Immigrant | -0.0576 (0.0693) | 0.0608 | 0.0597 | -0.0523 | 0.0625 | 0.0573 | | |
| Ape | 0.0007 | 0.0003 | 0.0003 | 0.0011 | 0.0012 | 0.0011 | | |
| R-squared Sample size | 0.190 | 0.207 | 0.207 | 0.186 | 0.199 4597 | 0.200 | | |

"Standard errors are reported in parentheses. The regressions use the linear probability model. The immigrant dummy variable is set to unity if either parent was foreign born.

TABLE 5
Determinants of Ethnic Residential Segregation, 1992*

| | Regression | | | | | | | |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--|--|
| Variable | (1) | (2) | (3) | (4) | (5) | (6) | | |
| Respondent's education | -0.0078 (0.0032) | -0.0092 (0.0028) | _ | _ | _ | _ | | |
| Respondent's log wage | - | | _ | -0.0330 (0.0113) | -0.0208 (0.0068) | _ | | |
| Ethnic capital | -0.1876 (0.0355) | _ | - | -0.1817 (0.0348) | _ | _ | | |
| Group is in lower quartile | _ | 0.5365 (0.0819) | 0.5778 (0.1080) | _ | 0.5215 (0.0856) | 0.5391 | | |
| Group is in upper quartile | _ | -0.0956 (0.0487) | -0.0819 (0.1374) | _ | -0.1014 (0.0506) | | | |
| Interactions between respondent's education and | | | | | | | | |
| Group is in lower quartile | _ | _ | -0.0110 (0.0028) | _ | _ | _ | | |
| Group is in 25-75th percentile | _ | _ | -0.0078 (0.0048) | _ | _ | _ | | |
| Group is in upper quartile | _ | _ | -0.0088 (0.0094) | _ | _ | _ | | |
| Interactions between respondent's log wage and | | | (0.000.000 | | | | | |
| Group is in lower quartile | _ | _ | _ | _ | _ | -0.0276 $(0.0073$ | | |
| Group is in 25-75th percentile | _ | _ | _ | _ | _ | -0.0194 (0.0109 | | |
| Group is in upper quartile | _ | _ | - | _ | _ | 0.0086 | | |
| Male | 0.0064 | 0.0061 | 0.0059 | 0.0138 (0.0121) | 0.0161 (0.0114) | 0.0158 | | |
| Immigrant | 0.0460 | 0.1096 | 0.1093 | -0.0215 (0.0960) | 0.1320 (0.0616) | 0.1316 | | |
| Age | -0.0007 (0.0025) | -0.0004 | -0.0004 | -0.0010 | 0.0002 | 0.0003 | | |
| R-squared | 0.258 | 0.320 | 0.320 | 0.248 | 0.304 | 0.304 | | |
| Sample size | 6837 | 6837 | 6837 | 3363 | 5363 | 5363 | | |

[&]quot;Standard errors are reported in parentheses. The regressions use the linear probability model. The immigrant dummy variable is set to unity if either parent was foreign born.

TABLE 6
Intergenerational Correlation in Ethnic Residential Segregation^e

| | Column | | | | | | |
|--|----------|----------|----------|----------|--|--|--|
| Sample: | (1) | (2) | (3) | (4) | | | |
| All persons ($N = 3737$) | 0.4954 | 0.4944 | 0.3321 | 0.3309 | | | |
| - | (0.0146) | (0.0146) | (0.0161) | (0.0161) | | | |
| Nonblack persons ($N = 2533$) | 0.4249 | 0.4085 | 0.3093 | 0.3083 | | | |
| • | (0.0174) | (0.0176) | (0.0191) | (0.0191) | | | |
| Did not live in same zip code in 1979 | 0.3399 | 0.3382 | 0.1705 | 0.1687 | | | |
| and 1992 (N = 2289) | (0.0197) | (0.0197) | (0.0216) | (0.0216) | | | |
| Lived in same zip code in 1979 and | 0.7298 | 0.7285 | 0.5958 | 0.5958 | | | |
| 1992 (N = 1448) | (0.0184) | (0.0184) | (0.0208) | (0.0208) | | | |
| Includes age and immigration status | No | Yes | Yes | Yes | | | |
| Includes ethnic fixed effects | No | No | Yes | Yes | | | |
| Includes respondent's 1992 educational attainment | No | No | No | Yes | | | |

[&]quot;Standard errors are reported in parentheses. The regressions use the linear probability model.

Borjas (1999)

- Relates to broader debate on the fiscal impact of immigration.
 - In the US, immigrants thought to be net contributors to the Federal budget (particularly social insurance), but net recipients of state/local resources.
 - Net impact could vary dramatically depending on eligibility of benefits, tax compliance, etc.
- Use 1980/1990 Census microdata to examine distribution of immigrants across states.
 - Income support programs administered by states, and vary considerably in terms of generosity.

State's AFDC benefits as a percent of benefits in median state

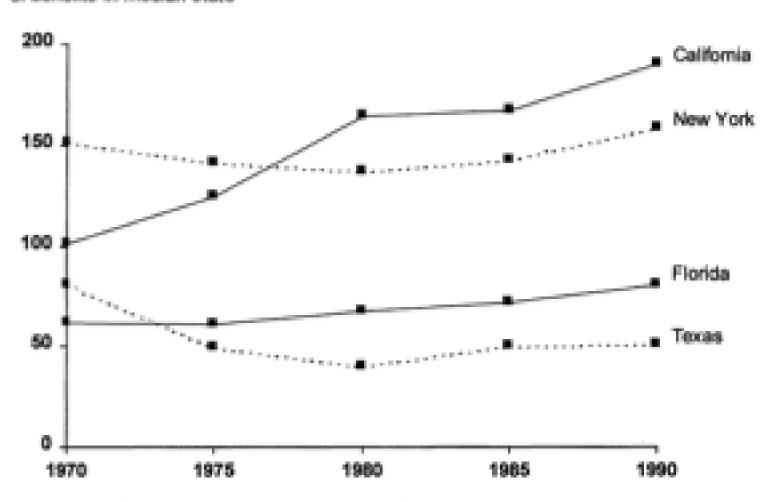


Table 2 Geographic Clustering of Welfare Recipients in California (Percent of Households Living in California)

| | 19 | 80 | 19 | 90 |
|--------------------------------------|-------------------|---------------|-------------------|---------------|
| Group | Not on Welfare | On Welfare | Not on Welfare | On Welfare |
| Natives: | | | | |
| All households | 9.7 | 11.2 | 9.6 | 11.5 |
| Female-headed households with | | | | |
| children | 10.4 | 9.6 | 9.6 | 11.1 |
| Immigrant households: | | | | |
| All households | 22.4 | 28.6 | 27.6 | 37.6 |
| Nonrefugee households | 24.6 | 31.4 | 29.6 | 37.4 |
| Non-Mexican households | 17.8 | 22.4 | 22.0 | 33.1 |
| Newly arrived immigrants (in | | | | |
| United States less than 5 years): | | | | |
| All households | 30.1 | 36.9 | 28.9 | 45.4 |
| Nonrefugre households | 31.2 | 37.4 | 30.0 | 43.7 |
| Non-Mexican households | 24.9 | 34.4 | 23.6 | 44.2 |
| Immigrants; female-headed households | | - | | |
| with children: | | | | |
| All households | 26.1 | 27.6 | 30.6 | 36.2 |
| Nonrefugee households | 27.4 | 28.6 | 31.9 | 34.3 |
| Non-Mexican households | 19.3 | 17.3 | 22.4 | 26.5 |
| Newly arrived immigrants: | | | | |
| All households | 33.4 | 32.7 | 31.3 | 41.0 |
| Nonrefugee households | 34.3 | 30.9 | 32.5 | 37.0 |
| Non-Mexican households | 25.6 | 26.6 | 23.3 | 35.7 |

Table 5 Determinants of Probability of Receiving Welfare, Using Pooled 1980 and 1990 Census

| | Log AFDC | Log per | | Measur Ethnic E | |
|--|--------------------------|-------------------------|--------------------------|--------------------|----------------|
| Group | Benefit Level | Capita Income | Unemployment Rate | q_1 | q_2 |
| Female-headed households with children: | | | | | |
| Natives $(N = 67,775)$ | .088 (.031) | 334 (.082) | .010 (.003) | | |
| Natives; weighted sample | .062 (.082) | 258 (.174) | .021 (.006) | | |
| Recent immigrants (N = 7,824) | .208 | 366 | .014 | | |
| Recent immigrants | (.103) .234 (.100) | (.265) 418 (.250) | (,008) .012 (,007) | -1.487 (,431) | .187 |
| Recent immigrants, with national origin fixed | | | | | |
| effects | .271 (.090) | 261 (.188) | .019 (.005) | -1.129 (.432) | .122 (.056) |
| All immigrants $(N = 53,285)$ | .112 (.054) | 122 (.072) | .003 | | |
| All immigrants | .119 | 156 (.072) | .003 (.004) | -1.109 (.497) | .184 (.075) |

Epilogue to Borjas (1999)

- Welfare reform act in 1996 restricts availability of benefits to immigrants.
- Central trend in 1990s: movement of immigrants to "new destinations".
 - Away from traditional receiving states (California, Texas, Florida, New York, New Jersey, Illinois).
 - Toward states with strong job growth... and low welfare benefits! (Georgia, North Carolina)

Zavodny (1999)

- Data on new refugees and new recipients of legal permanent residence ("green cards"), 1989-1994.
 - Family-sponsored (38%)
 - Conversions to legal status under 1986 amnesty (37%)
 - Employer-sponsored (8%)
 - Refugees/asylees (10%)
- "Neighborhood" is the state.
- Not conditional logit. Regression of state market share on state characteristics.

TABLE 2
DETERMINANTS OF IMMIGRANTS' LOCATIONAL CHOICES, BY ADMISSION CATEGORY

| | All New Legal | | | | | |
|-------------------------------|---------------|--------|-----------|---------|----------------|----------|
| | Permanent | | | | Refugee/Asyles | : New |
| | Residents | Family | Employmen | I IRCA | Conversions | Refugees |
| Total Population | 1.004 | .839 | 1.099 | 1.201 | 1.324 | 1.289 |
| | (.050) | (.039) | (.062) | (.159) | (.131) | (.151) |
| Foreign-Born Population Share | 1.092 | 1.151 | .746 | 1.554 | .620 | .512 |
| | (.076) | (.060) | (.079) | (.186) | (.166) | (.166) |
| Unemployment Rate | ~.199 | 141 | 722 | 091 | 492 | 670 |
| | (.201) | (.075) | (.173) | (.319) | (.431) | (.349) |
| Manufacturing Wage | ~.044 | .435 | 2.618 | -3.445 | 994 | 016 |
| | (.361) | (.335) | (.593) | (1.107) | (1.016) | (.947) |
| Difference between Highest | 004 | .005 | .039 | 013 | 052 | 029 |
| And Lowest Tax Rates | (.010) | (800.) | (.015) | (.034) | (.023) | (.023) |
| AFDC and Food Stamps Benefit | as .107 | 031 | 002 | 365 | 2.025 | 1.852 |
| - | (.296) | (.276) | (.379) | (.986) | (.771) | (.787) |
| F-Test Statistic 5 | ,255.65 2,0 | 31.46 | 772.92 | 652.57 | 97.37 | 53.35 |
| [p-value] | [.000] | [.000] | [000.] | [.000] | [.000] | [.000] |

Notes: Dependent variable is (log) number of immigrants settling in a state. The category all new legal permanent residents includes all of the other categories except new refugees. Regressions include a constant, 5 year fixed effects, and 8 region fixed effects. Observations are weighted using total state population. Foreign-born population share is instrumented using the fraction of the state population that naturalized last year. Heteroskedasticity-corrected standard errors in parentheses. The F-test tests whether all of the coefficients are jointly equal to zero. The data cover 51 states over 1989-1994, or 306 observations.

TABLE 4
DETERMINANTS OF NEW LEGAL PERMANENT RESIDENTS' LOCATIONAL CHOICES,
BY COUNTRY OF ORIGIN

| | | Dominican | | | |
|-------------------------------|--------|-----------|---------|-------------|---------|
| | China | Republic | Mexico | Philippines | Vietnam |
| Total Population | 1.065 | .928 | .879 | .947 | 1.073 |
| - | (.078) | (.118) | (.084) | (.046) | (.101) |
| Foreign-Born Population Share | 1.007 | 1.095 | 1.051 | 1.029 | .700 |
| | (.072) | (.099) | (.051) | (.053) | (.097) |
| Unemployment Rate | 440 | 394 | .004 | .079 | 554 |
| - | (.159) | (.373) | (.214) | (.089) | (.287) |
| Manufacturing Wage | 059 | 2.319 | .596 | 628 | 1.112 |
| | (.313) | (1.056) | (.575) | (.281) | (.648) |
| Difference between Highest | 001 | 050 | 005 | .003 | 039 |
| And Lowest Tax Rates | (.010) | (.020) | (.012) | (.008) | (.018) |
| AFDC and Food Stamps Benefits | 125 | 582 | 456 | .090 | 213 |
| - | (.315) | (1.244) | (.483) | (.307) | (.641) |
| Distance | -1.214 | 326 | 065 | .749 | -1.065 |
| | (.960) | (.663) | (.345) | (.743) | (1.636) |
| F-Test Statistic 3 | 870.01 | 240.93 | 1932.63 | 1852.04 | 352.28 |
| [p-value] | [.000] | [.000] | [.000] | [000.] | [000.] |

Notes: Dependent variable is (log) number of legal permanent residents settling in a state. Regressions include a constant, 5 year fixed effects, and 8 region fixed effects. Observations are weighted using total state population. Foreign-born population share is instrumented using the fraction of the state population that naturalized last year. Heteroskedasticity-corrected standard errors in parentheses. The F-test tests whether all of the coefficients are jointly equal to zero. The data cover 51 states over 1989-1994, or 306 observations.

Bauer et al. (2005)

- Mexican Migrant Project: longitudinal dataset that begins with a sample of Mexicans.
- Which migrants select which destinations, conditional on leaving in the first place?
 - Destination choice analyzed at city rather than neighborhood level.
- Permit the attractiveness of location characteristics to vary by migrants' initial language ability.

Table 2 Location choice, migration networks, and language

| | (1) | (2) | | |
|--|-------------------|--------------------------------|--------------------------------|-----------------------------|
| | All migrants | All migrants | | |
| | | Cannot speak nor understand | Cannot speak but understand | Can speak and understand |
| Unemployment rate (in %) | -0.029** (0.012) | 0.035** (0.016) | -0.081*** (0.025) | -0.110*** (0.024) |
| Total population (in 100,000) | 0.035*** (0.001) | 0.033*** (0.001) | 0.035*** (0.002) | 0.040*** (0.001) |
| | -0.150** (0.065) | -0.149 (0.096) | -0.054 (0.131) | -0.154 (0.120) |
| Mexican share of population (in %) | 0.463*** (0.017) | 0.396*** (0.023) | 0.530*** (0.040) | 0.599*** (0.039) |
| Mexican share of population (in %), squared | -0.021*** (0.001) | -0.017*** (0.001) | -0.026*** (0.002) | -0.031*** (0.003) |
| Log-likelihood | -6,204.006 | | -6,154.574 | |
| Pseudo-R ² | 0.254 | | 0.260 | |

Observations: 101,567; 2,161 individuals.

Significant at least at the 5% level; *Significant at least at the 1% level

Summary of US literature

- Immigrants are attracted to locations with pre-existing migrant populations, particularly if their language skills are poor.
- Parent enclave residence is a strong determinant of child enclave residence.
- Immigrants, particularly refugees, are sensitive to the generosity of income support programs.
- Immigrants are sensitive to local economic conditions.

Åslund (2005)

- Swedish immigrant settlement policy (1985-): assignment to municipality is close to random conditional on observables.
- Analyze secondary moves: likelihood of leaving your first location as a function of its characteristics.
- Addresses omitted variable concerns.
 - Traditional location choice variables identified by selections of movers, who are not a random sample.
 - Compare before and after settlement policy.

Table 3 Relocation out of the initial municipality

| | 87/89 immigrants | | 81/83 immigrants | |
|---------------------------------------|-------------------|-------------------|------------------|--|
| | Basic | Extended | Basic | Extended |
| Ethnic concentration | - 0.034** (0.010) | - 0.040** (0.009) | - 0.014 (0.012) | -0.031** (0.009) |
| Immigrant density | - 0.021 (0.021) | 0.014 (0.023) | -0.005 (0.021) | 0.036 (0.030) |
| In (municipal population) | - 0.716** (0.134) | - 0.645** (0.101) | -0.667** (0.121) | -0.721** (0.127) |
| Municipal unemployment | 0.162 (.083) | 0.228* (0.098) | -0.054 (0.088) | 0.037 (0.120) |
| In (mean earnings) | | 1.241* (0.551) | | 0.747 (1.145) |
| Immigrant employment | | -0.077**(0.011) | | -0.141** (0.035) |
| SA takers | | - 0.091 (0.076) | | -0.163**(0.121) |
| SA take-up rate | | -0.111(0.486) | | 0.140 (0.493) |
| In (per capita municipal spending) | | - 0.040 (0.032) | | -0.071** (0.031) |
| Municipal tax rate | | -0.001(0.006) | | 0.013 (0.019) |
| Fraction in resident-owned | | -0.002(0.005) | | -0.010 (0.007) |
| Female | -0.355** (0.081) | -0.340***(0.082) | -0.805** (0.214) | -0.748**(0.220) |
| Age | - 0.005 (0.019) | -0.008(0.019) | 0.093* (0.046) | 0.065 (0.045) |
| Age squared × 10 ⁻² | -0.025(0.027) | -0.025 (0.028) | -0.165*(0.072) | The state of the s |
| Married | -0.291** (0.064) | -0.252***(0.064) | -0.536** (0.157) | -0.464**(0.152) |
| Married \times female | 0.068 (0.100) | 0.039 (0.101) | 0.375 (0.235) | 0.312 (0.235) |
| Region of origin (E Eur ref. |) | | | |
| Africa | 0.404* (0.160) | 0.304 (0.164) | 0.526** (0.178) | 0.439* (0.184) |
| Middle East | 0.554** (0.134) | 0.471** (0.133) | 0.311 (0.191) | 0.255 (0.168) |
| Asia | - 0.265* (0.123) | -0.302** (0.120) | 0.349 (0.224) | 0.201 (0.182) |
| South America | - 0.386** (0.109) | - 0.411** (0.103) | 0.324 (0.211) | 0.290 (0.184) |
| Number of individuals | 10,456 | 10,456 | 2718 | 2718 |
| Pseudo R ² | 0.18 | 0.19 | 0.13 | 0.15 |

Parameter estimates from logit specifications, robust standard errors (clustered by municipality) in parentheses.

Table 4 Choice of municipality at immigration and in subsequent periods

| | Initial, 81/83 cohorts | T+4, movers in 87/89 cohorts | Bias |
|------------------------------------|------------------------|------------------------------|-----------|
| Ethnic concentration | 0.084** (0.004) | 0.078** (0.004) | _ |
| Immigrant density | 0.038** (0.007) | 0.061** (0.006) | _ |
| In (municipal population) | 1.104** (0.031) | 1.104** (0.027) | + 1 |
| Municipal unemployment | -0.217***(0.026) | - 0.113** (0.034) | + |
| In (mean earnings) | 3.151** (0.423) | 0.819* (0.322) | _ |
| Immigrant employment | -0.106***(0.008) | 0.018** (0.006) | + |
| SA takers | 0.355** (0.031) | 0.134** (0.028) | - |
| SA take-up rate | 0.002 (0.003) | 0.003 (0.003) | 0 |
| Municipal tax rate | 0.000 (0.008) | 0.024** (0.006) | $0 (\pm)$ |
| In (per capita municipal spending) | - 0.015 (0.216) | - 0.017 (0.193) | _ |
| Fraction in resident-owned home | 0.004 (0.002) | - 0.003 (0.002) | + |
| Number of individuals | 2810 | 3928 | |
| Pseudo R ² | 0.36 | 0.27 | |

Estimates from conditional logit models, 279 alternatives for each individual. Regional variables described in Appendices A and B. "Bias" gives the sign of the bias in the estimates for the 87/89 cohorts. This is based on the initial location pattern of this cohort, presented in 0. A positive (negative) estimate in the model for initial locations yields a negative (positive) bias in the model for secondary locations. The 81/83 cohorts are weighted to conform to the region-of-origin distribution of the 87/89 cohorts.

Daam (2009)

- Denmark: immigrant assignment policy favors dispersion, 1986-1998. Initial location random conditional on observables
- Innovation over Åslund (2005): estimate hazard model of time-to-move rather than 0/1 "did you move."
- Proportional hazard model: estimate a baseline propensity of moving at time t conditional on not having moved before time t. Simultaneously model explanatory factors as having a constant multiplicative effect on this propensity.

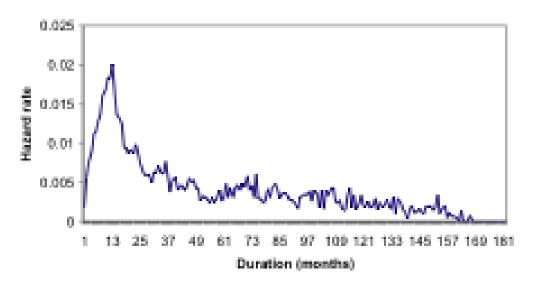


Fig. 4 Kaplan-Meier empirical hazard function for relocation out of the municipality of assignment

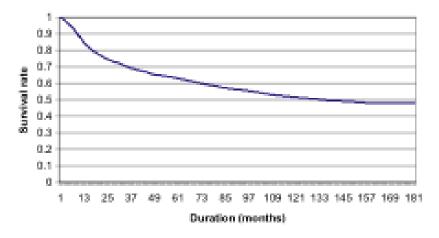


Fig. 5 Kaplan-Meier empirical survivor function for residence in the municipality of assignment

Table 5 Mixed Proportional Hazard model coefficient estimates in the baseline models

| | Post-reform refugees | | | | | | Pre-reform refugees ^b |
|----------------------------|----------------------|---------|---------|---------|---------|-------------|-------------------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6^{a} | 7 |
| Demographic attributes | | | | | | | |
| ln(inhabitants)/100 | -61.256 | -61.328 | -43.454 | -43.498 | -2.934 | -4.029 | -42.784 |
| | (1.273) | (1.288) | (1.784) | (1.803) | (2.349) | (2.484) | (5.843) |
| Percent immigrants/10 | 0.797 | 0.742 | 0.443 | 0.478 | 0.852 | -0.581 | 0.023 |
| Sec. | (0.071) | (0.032) | (0.041) | (0.043) | (0.060) | (0.172) | (0.130) |
| Percent co-nationals/10 | -0.432 | -0.411 | -0.378 | -0.370 | -0.408 | -0.305 | -0.054 |
| | (0.031) | (0.032) | (0.032) | (0.032) | (0.033) | (0.057) | (0.059) |
| Metropolitan area | | 0.107 | 0.487 | 0.466 | 0.400 | 0.403 | 0.590 |
| 1 | | (0.036) | (0.038) | (0.039) | (0.048) | $\{0.047\}$ | (0.104) |
| Labour market attributes | | , , | , , | , , | | | , , |
| Unemployment rate/100 | -0.033 | -0.027 | -0.022 | 0.048 | 0.228 | 0.236 | -0.553 |
| | (0.047) | (0.048) | (0.048) | (0.051) | (0.052) | (0.053) | (0.158) |
| Percent right-wing | | | | 0.554 | 0.709 | 0.683 | -0.423 |
| votes/100 | | | | (0.094) | (0.094) | (0.097) | (0.262) |
| Educational | | | | | -5.019 | -1.937 | -0.868 |
| institutions/100 | | | | | (0.472) | (0.527) | (0.976) |
| Housing market attributes | | | | | () | ,, | Q |
| Percent social | | | -1.674 | -1.518 | -1.557 | -0.338 | -2.374 |
| housing/100 | | | (0.157) | (0.165) | (0.165) | (0.210) | (0.394) |
| Percent rental housing/100 | | | -0.744 | -0.657 | -1.777 | -2.950 | 0.396 |
| | | | (0.184) | (0.186) | (0.187) | (0.245) | (0.459) |

Dependent variable: hazard rate of relocation out of assigned municipality. Standard errors are reported in parentheses. Controls for demographic and socio-economic characteristics of the individual are included as well as controls for time-invariant unobserved characteristics of the individual. Number of residential spells: 35,563 and 4,154 in post- and pre-reform refugee sample, respectively. Number of relocations: 13,856 and 2,693 in post- and pre-reform refugee sample, respectively.

⁸ Refugees who were assigned to a municipality in Copenhagen City are excluded

^b Refugees who immigrated between January 1983 and September 1985

Lessons from Europe

- Country-specific location assignment policies introduce possibilities for quasi-experimental analysis.
- Overall, similar behaviors to US: attraction to preexisting immigrant populations, sensitivity to labor market conditions, educational opportunities, local political climate.