

Immigrant Integration: Measurement

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Introduction

- My part will focus on the integration or “assimilation” of immigrants into the host country’s labor market and beyond
- Labor market performance of immigrants is the key aspect determining economic impacts of immigration
- Integration (in a broad sense) likely to be a key determinant on how natives feel, and thus vote, about immigration

Outline

- Today, we will focus on **measuring** how immigrants and their children cope in their host countries
 - 1st generation integration is a classic topic in labor economics
 - fast growing body of work on the children of immigrants
 - key ingredient in policy debate
 - some of the methodological insights useful also for other topics
- Tomorrow, I will talk about evaluating integration **policies**

Outline

- Long and large literature
 - Google Scholar searches (June 27, 2017)
 - “earnings assimilation” AND immigrants → 951 hits
 - “labor market integration” AND immigrants → 2,900 hits
 - but: we still lack a systematic synthesis of the existing results

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- Long and large literature
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 - “earnings assimilation” AND immigrants → 951 hits
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 - but: we still lack a systematic synthesis of the existing results
- I’ll focus on the classic papers and a few themes I find particularly important
 - cross-sectional estimates
 - cohort quality
 - outmigration
 - heterogeneity across groups and place
 - children of immigrants

Starting point: Chiswick (1978)

“Although immigrants initially earn less than the native born, their earnings rise more rapidly with U.S. labor market experience, and after 10 to 15 years their earnings equal, and then exceed, that of the native born.”

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“Although immigrants initially earn less than the native born, their earnings rise more rapidly with U.S. labor market experience, and after 10 to 15 years their earnings equal, and then exceed, that of the native born.”

- This conclusion was based on running the following regression using 1970 U.S. Census data for working-age men

$$\log w_i = \alpha F_i + \beta YSM_i + \theta A_i + \delta X_i + \epsilon_i$$

where $\log w_i$ is the log weekly wage of person i , F_i is an indicator for the person being born outside of the US, YSM_i is the number of years he has lived in the US (“years-since-migration”; zero for natives; including higher order polynomials), A_i is his age (including higher order polynomials) and X_i is a vector of socioeconomic characteristics and a constant.

Results and (original) interpretation

Source: Borjas (2014, p. 40)

Yrs of education	.072 (.0002)
Immigrant	-.213 (.007)
YSM	.032 (.001)
YSM ² /100	-.068 (.004)

The specification also includes age and age squared.

- Extended Mincer equation
- At arrival, immigrants lack US specific human capital and thus have .2 log-points lower wages
- Over time, they acquire these skills and thus their earnings grow faster than those of natives
- Immigrants positively selected and thus eventually overtake natives

Instability of the cross-sectional regressions

Source: Borjas (2014, p. 40)

	Census year				
	1970	1980	1990	2000	2010
Yrs of education	.072 (.0002)	.066 (.0001)	.090 (.0002)	.097 (.0002)	.116 (.0002)
Immigrant	-.213 (.007)	-.241 (.005)	-.224 (.004)	-.164 (.003)	-.183 (.005)
YSM	.032 (.001)	.022 (.001)	.022 (.001)	.009 (.0005)	.006 (.001)
YSM ² /100 squared ($\div 100$)	-.068 (.004)	-.039 (.003)	-.029 (.002)	.0002 (.001)	.004 (.002)

Borjas (1985): Changes in cohort “quality”

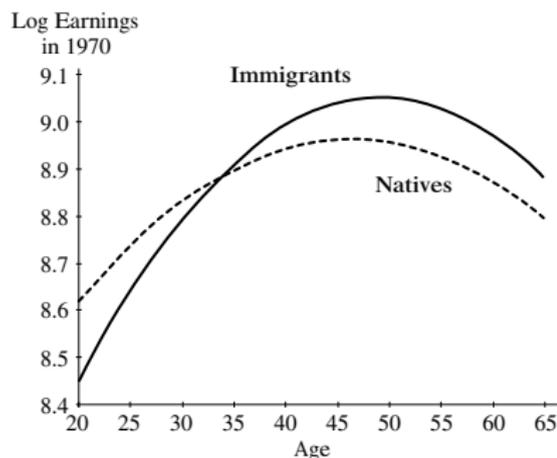


Figure 1. The Cross-Section Age-Earnings Profiles of Immigrants and Natives in the United States, 1970

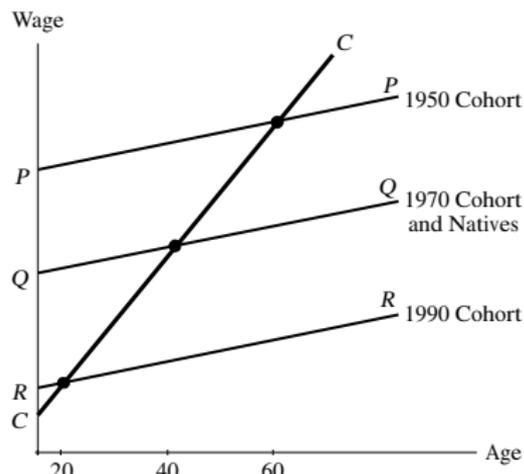


Figure 2. Cohort Effects and the Cross-Section Age-Earnings Profile of Immigrants

The left panel presents predictions for immigrants who enter the United States at age 20 based on Chiswick's (1978) results. The right panel presents Borjas's (1985) proposed interpretation of associations drawn from a single cross-section. Source: Borjas (1994)

Borjas (1985): Changes in cohort “quality”

- “[...] within-cohort growth is significantly smaller than the growth predicted by cross-section regressions for most immigrant groups. This differential is consistent with the hypothesis that there has been a secular decline in the “quality” of immigrants admitted to the United States.”

Borjas (1985): Changes in cohort “quality”

- “[...] within-cohort growth is significantly smaller than the growth predicted by cross-section regressions for most immigrant groups. This differential is consistent with the hypothesis that there has been a secular decline in the “quality” of immigrants admitted to the United States.”
- Key difference
 - control for year of arrival FEs
 - Q: why was this missing from Chiswick’s paper?

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- Key difference
 - control for year of arrival FEs
 - Q: why was this missing from Chiswick’s paper?
 - identification requires at least two repeated cross-sections (Borjas uses both 1970 *and* 1980 U.S. Census data)

Controlling for cohort “quality”

Estimation equation for immigrants

$$\log w_{it} = C_i \alpha + YSM_{it} \beta + A_{it} \theta' + \gamma_t' + \epsilon_{it}$$

where C_i is a vector of year of arrival fixed-effects (zero for natives), γ_t is calendar year fixed-effects and other variables as above. I have suppressed X_{it} to keep notation simpler.

Controlling for cohort “quality”

Estimation equation for immigrants

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where C_i is a vector of year of arrival fixed-effects (zero for natives), γ_t is calendar year fixed-effects and other variables as above. I have suppressed X_{it} to keep notation simpler.

... and for the natives

$$\log w_{it} = A_{it} \theta^N + \gamma_t^N + \epsilon_{it}$$

The Collinearity Problem

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 - but: immigrants tend to be affected more by business cycles (e.g. Dustmann, Glitz, Vogel 2010)
- Bratsberg, Barth, Raaum (2006): local unemployment allowed to have differential impact on immigrants and natives
 - model immigrants' calendar year FEs as

$$\gamma_t^I = \kappa^I u_{rt} + \gamma_t + \nu_r + \epsilon_{jt}$$

where u_{rt} is the travel-to-work area's unemployment rate, and γ_t and ν_r are time and region fixed effects.

Selection into employment and emigration

- Selection into employment
 - those finding employment fast differ from the others
 - solution: examine annual earnings (including zeros)
 - but the classic papers use log wages or log earnings
- Selective outmigration
 - long-term immigrants differ from short-term immigrants
 - staying/leaving may be a function of labor market success
 - relevance depends on the question we are trying to answer (more below)

Selective outmigration

Dustmann and Görlach (2015)

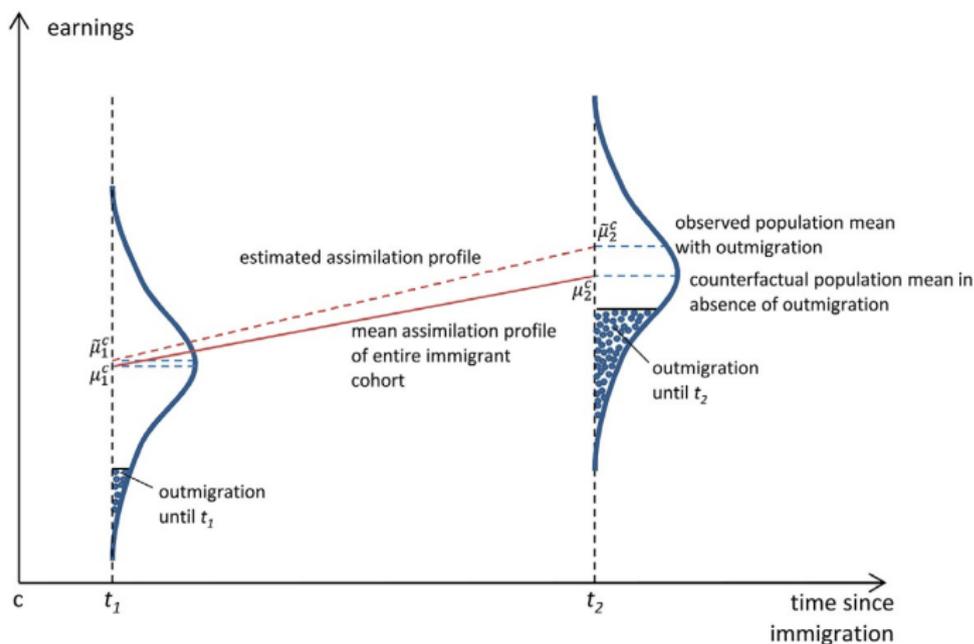


Figure 10.1 *Biased estimation of earnings profiles when out-migration is selective.*

What is the question we are trying to answer?

- Alternative 1: What is the value of an additional year in the host country (in comparison to a year in the source country)
 - this is a causal question (counterfactual: what would have happened if the person would have migrated x years earlier?)
 - thus changes in cohort characteristics, selection into employment and/or outmigration can bias the estimates

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 - correcting for this bias requires modelling employment, emigration and HC investments and estimating of the resulting dynamic structural model (e.g. Adda, Dustmann, Görlach, ongoing)
- Alternative 2: How do immigrants cope in the host country?
 - this is a descriptive question (e.g. what happened to those who ended up staying for more than x years?)
 - for policy, this may be more relevant than alternative 1

How much does outmigration matter?

Lubotsky (2007)

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- Based on a comparison of integration profiles from
 - standard repeated cross-sectional census data
 - longitudinal earnings data from Social Security records
- Note the “who remain...” part
 - does not attempt to answer question 1 (previous slide)
 - sample selection based on outcome
 - but it does answer question 2

Assimilation profiles: cross-section vs panel

Lubotsky (2007)

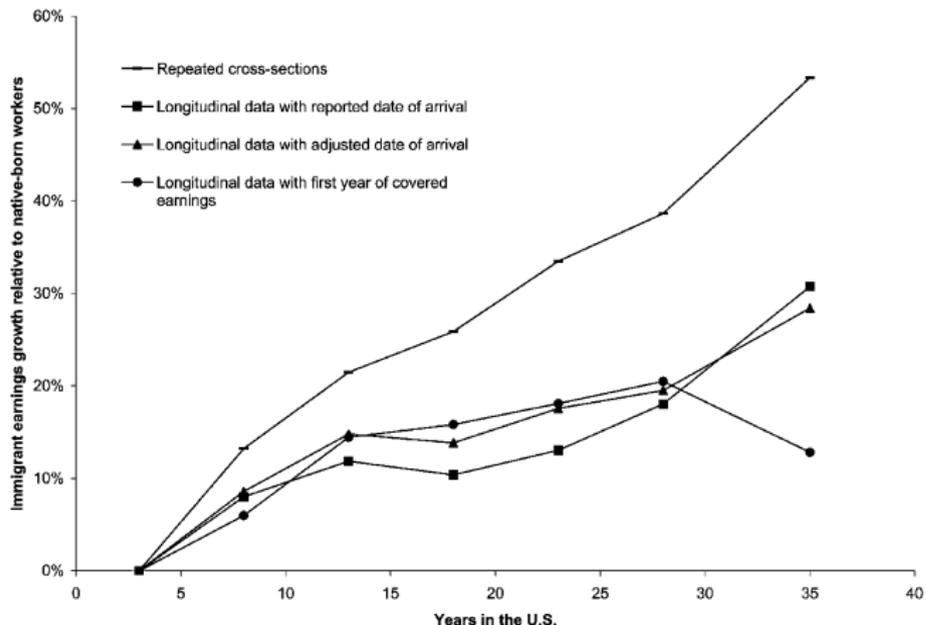


FIG. 2.—Immigrant earnings growth in repeated cross-sectional and longitudinal data. The figure plots the effect of immigrants' time in the United States on the immigrant-native earnings gap. Data are taken from estimates in table 5.

Cohort quality: cross-section vs panel

Lubotsky (2007)

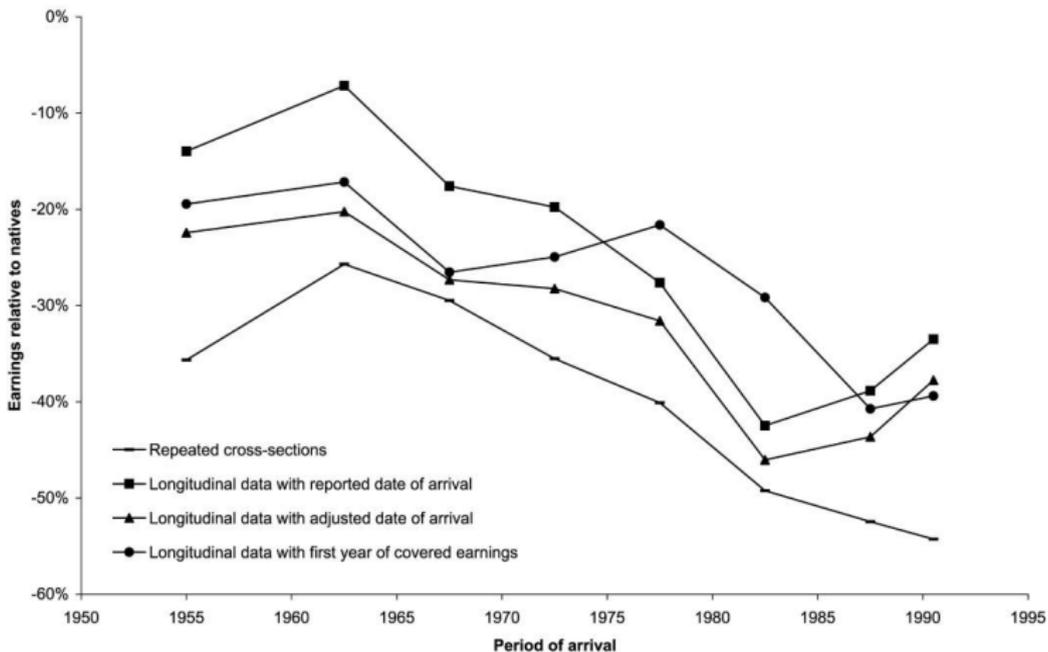
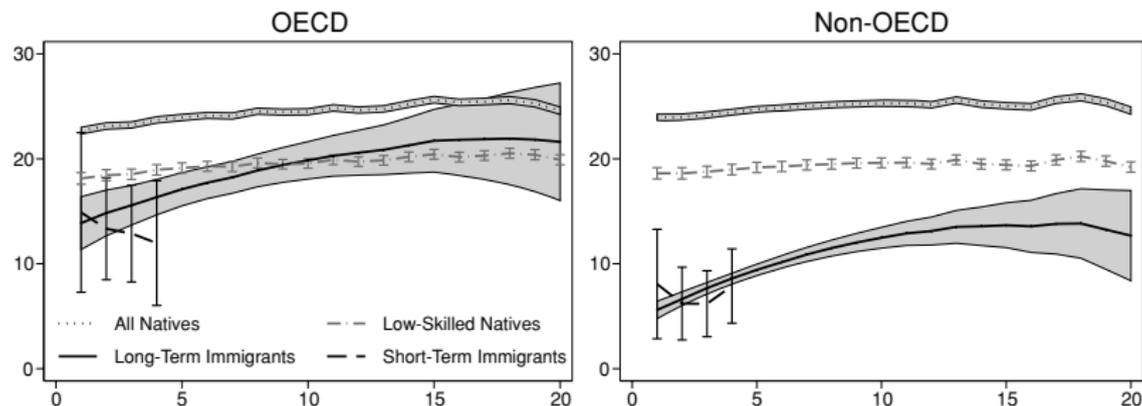


FIG. 3.—Immigrant arrival cohort fixed effects. The figure shows immigrant arrival cohort fixed effects; estimates are taken from table 5

Long vs short-term immigrants in Finland

Sarvimäki (2011)



Average assimilation profiles of male immigrants living in Finland in 1993-2003. The solid line corresponds to expected annual earnings of long-term immigrants over time in Finland, had the general labor market conditions remained constant. The dashed line present similar profiles for immigrants who left Finland in ≤ 5 years. The remaining lines correspond to native comparison groups.

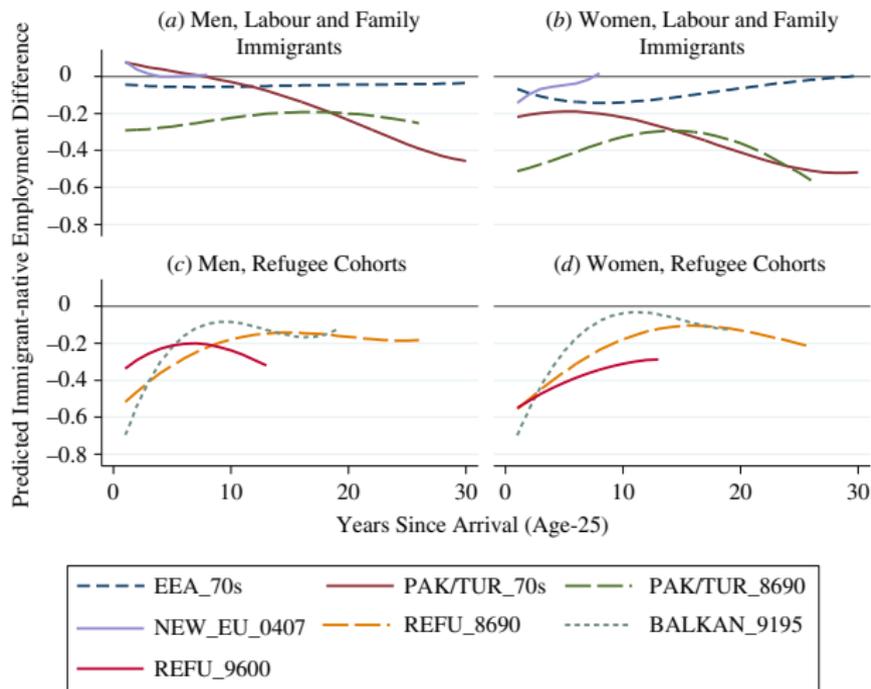
Heterogeneity of integration patterns

Bratsberg, Raaum, Røed (2014)

- Uses longitudinal data to study integration of major immigrant cohorts to Norway since 1970
- Summarize the results using the following procedure
 - estimate assimilation regressions separately for each group
 - use estimates to predict immigrant-native differences
 - plot the differences

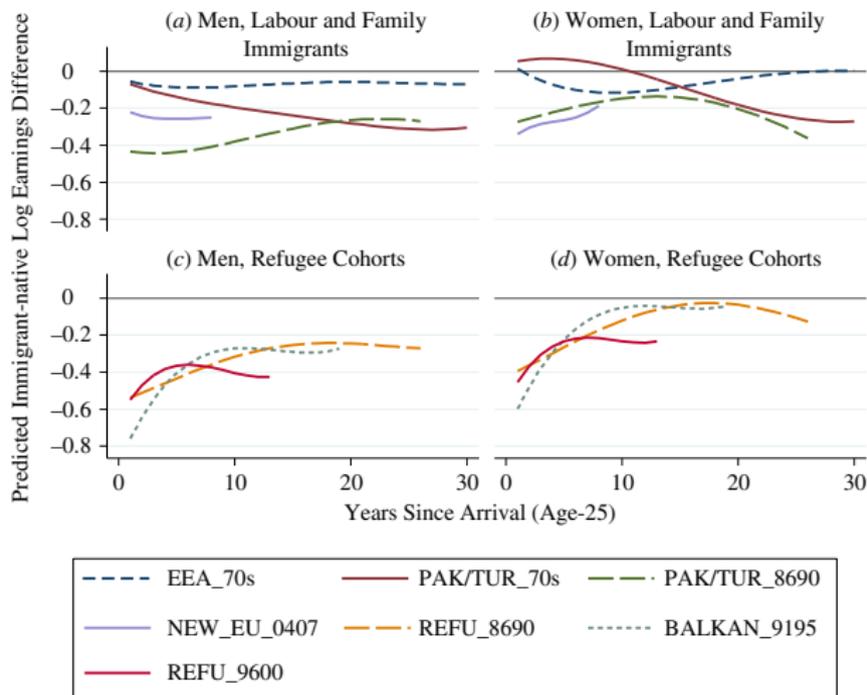
Employment differences, Norway

Bratsberg, Raam, Røed (2014)



Log earnings differences, Norway

Bratsberg, Raam, Røed (2014)



Disability pension differences, Norway

Bratsberg, Raum, Røed (2014)

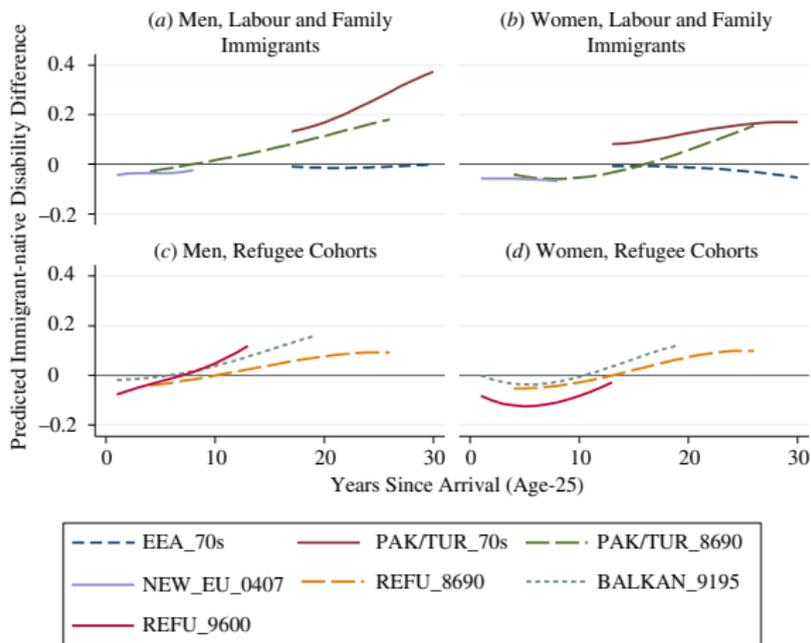


Fig. 8. Predicted Difference in Disability Programme Participation Between Immigrants and Natives

The Norwegian integration experience: Summary

Bratsberg, Raaum, Røed (2014)

- Immigrants from high-income countries
 - performed as natives
- Labor migrants from low-income source countries
 - declining employment rates
 - increasing disability programme participation
 - details in Bratsberg, Raaum, Røed (2010)
- Refugees and family migrants
 - assimilated during the first decade, then halted
 - accompanied by rising social insurance rates
- Children of 1970s labor migrants assimilate in education, earnings and fertility (see the paper)

Relative annual earnings (inc. zeros), Finland

Sarvimäki (2017)

	Men			
	1	5	10	15
Iraq	0.04 (0.00)	0.15 (0.01)	0.22 (0.01)	0.21 (0.02)
Afghanistan	0.04 (0.01)	0.25 (0.02)	0.38 (0.04)	.
Somalia	0.04 (0.00)	0.17 (0.01)	0.29 (0.01)	0.31 (0.02)
Yugoslavia (former)	0.26 (0.01)	0.43 (0.01)	0.48 (0.01)	0.51 (0.02)
Soviet Union (former)	0.45 (0.01)	0.60 (0.01)	0.69 (0.01)	0.70 (0.01)
Turkey	0.34 (0.01)	0.48 (0.01)	0.44 (0.02)	0.46 (0.03)
OECD	0.81 (0.01)	0.78 (0.01)	0.87 (0.01)	0.88 (0.02)
Other	0.52 (0.00)	0.55 (0.00)	0.56 (0.01)	0.57 (0.01)
All	0.52 (0.00)	0.57 (0.00)	0.60 (0.00)	0.60 (0.01)

Annual earnings relative to natives of same age and sex at the same calendar year by region of origin in Finland, 1988–2013. For example, the first entry tells that the annual earnings (including zeros) of Iraqi men were only 4% of the earnings of same-age native men during their first full calendar year in Finland.

Instead of regression based adjustment discussed above, I've used a "within-cell" approach discussed in the next slide. Standard errors are bootstrapped using 100 replications.

A “within-cell” approach

An alternative way to construct integration profiles:

$$y_{ysm} = \sum \theta(ysm, t, X) \left[\frac{w^i(ysm, t, X)}{w^n(t, X)} \right]$$

where $w^i(ysm, t, X)$ is the average earnings of immigrants who have lived ysm years in host country in year t and have background characteristics X , $w^n(t, X)$ is the average earnings of natives with the same characteristics in the same year. The weights $\theta = N(ysm, t, X) / N(ysm)$ sum to one over each ysm .

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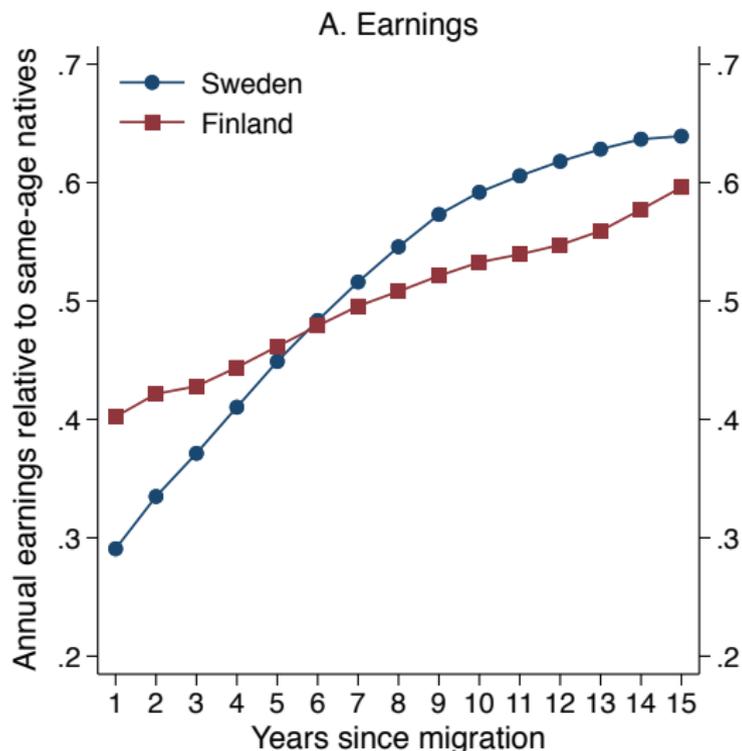
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- Advantages
 - transparent, easy to implement
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- Limitations
 - imposes identical year FEs within a (t, X) cell

Earnings assimilation in Sweden and Finland

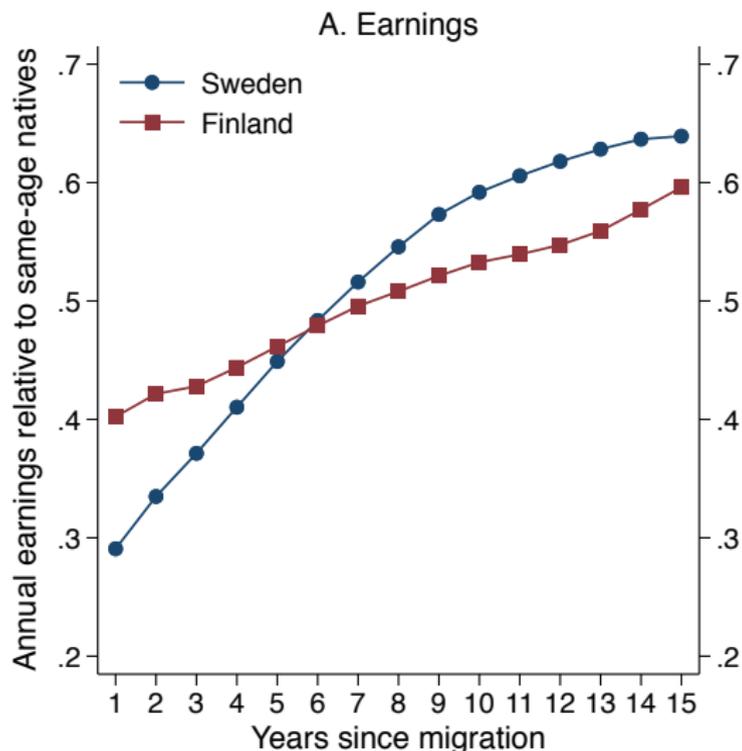
Ansala, Åslund, Sarvimäki (ongoing)



Scaling with comparable natives' outcomes is useful when comparing integration profiles across time or space. "Within-cell" approach does this directly, but you can also use regression-based adjustments. The upside of regression is that you don't have to impose common year FEs.

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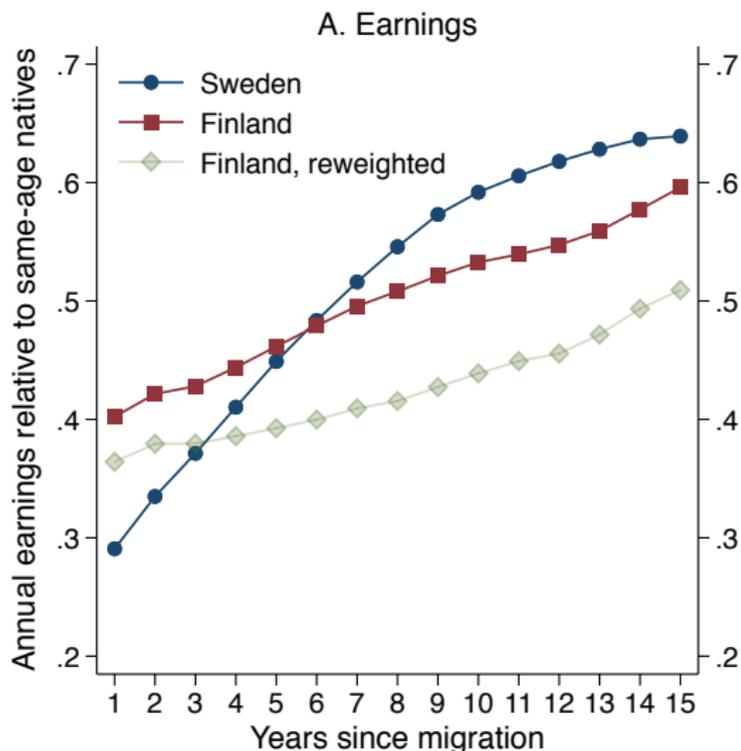


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Next, we ask: how would Finland's profile look like if Finland had the same country of origin mix as Sweden?

Earnings assimilation in Sweden and Finland

Ansala, Åslund, Sarvimäki (ongoing)

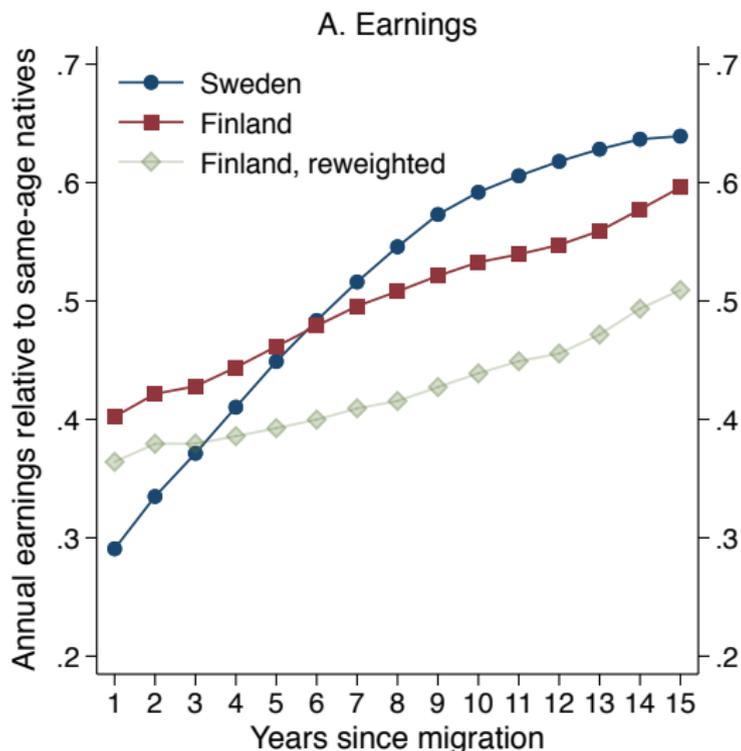


Reweight Finnish earnings ratios using Swedish weights

$$\sum \theta_{ysm,t,X}^{SE} \left[\frac{w_{ysm,t,X}^{FI,i}}{w_{t,X}^{FI,n}} \right]$$

Earnings assimilation in Sweden and Finland

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We now face the problem of sparse cells, i.e. some (ysm, t, X) combinations may be common in Sweden, but rare (or not exist) in Finland. Need to extrapolate somehow. Probably best to use regressions to construct $\mathbb{E} \left[w_{ysm,t,X}^{FI,i} / w_{t,X}^{FI,n} \right]$.

Anatomies of assimilation

Ansala, Åslund, Sarvimäki (ongoing)

- This paper will dissect the assimilation process into several parts by asking:
 - how long does it take to find the first job?
 - what kind of entry jobs immigrants have?
 - how do entry jobs predict future outcomes?
 - how do immigrant groups differ in their integration?
 - what is the role of ethnic networks in this process?

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- Linked employer-employee data covering the entire populations of Finland and Sweden from the late 1980s onwards
 - similar countries in terms of formal labor market institutions
 - but very different immigration histories

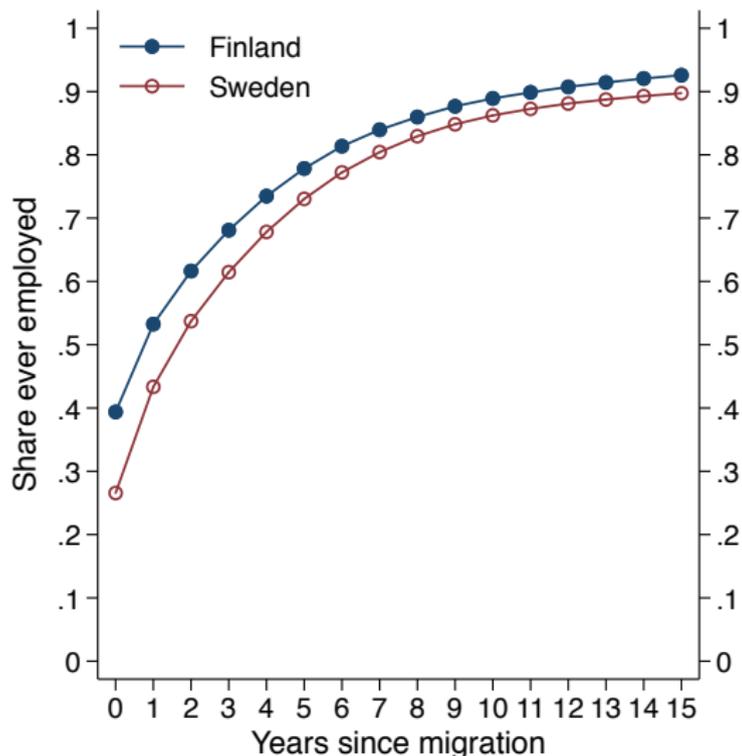
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- Linked employer-employee data covering the entire populations of Finland and Sweden from the late 1980s onwards
 - similar countries in terms of formal labor market institutions
 - but very different immigration histories
- Very much work in progress
 - the most interesting parts didn't quite make it to this lecture

Finding the first job in Finland and Sweden

Ansala, Åslund, Sarvimäki (ongoing)

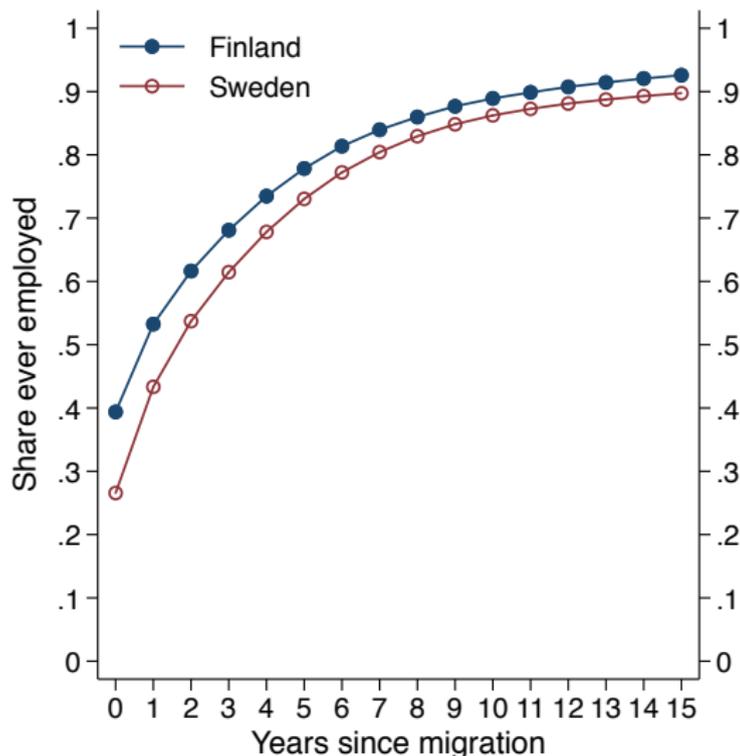


An important part of the integration process is to find a job.

Roughly 10% of immigrants had no labor or entrepreneurial income during their first 15 years in the host country.

Finding the first job in Finland and Sweden

Ansala, Åslund, Sarvimäki (ongoing)



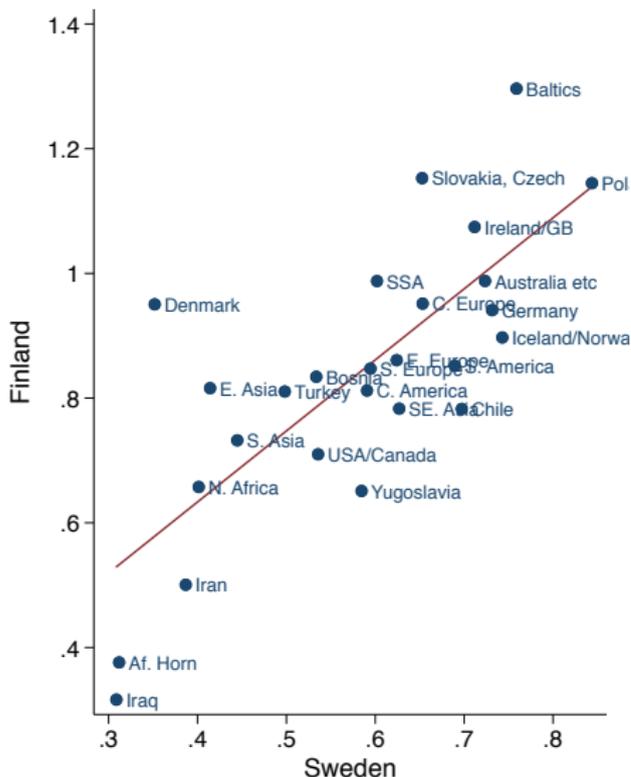
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Composition of employed immigrants changes dramatically over YSM
 → hard to interpret wage assimilation profiles.

Finding the first job in Finland and Sweden

Ansala, Åslund, Sarvimäki (ongoing)

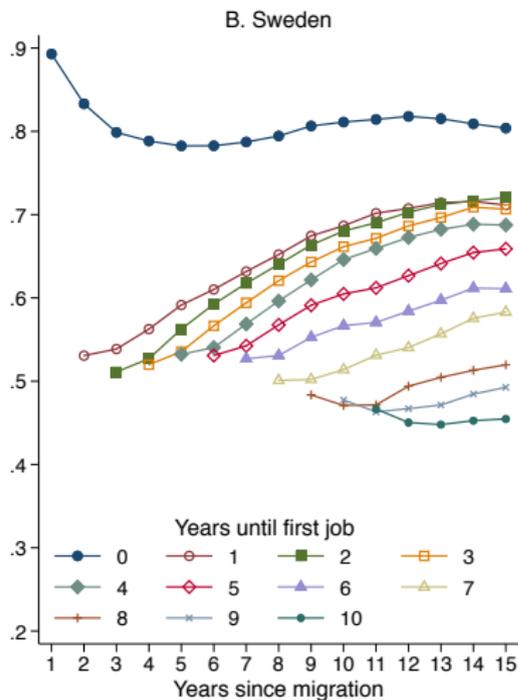
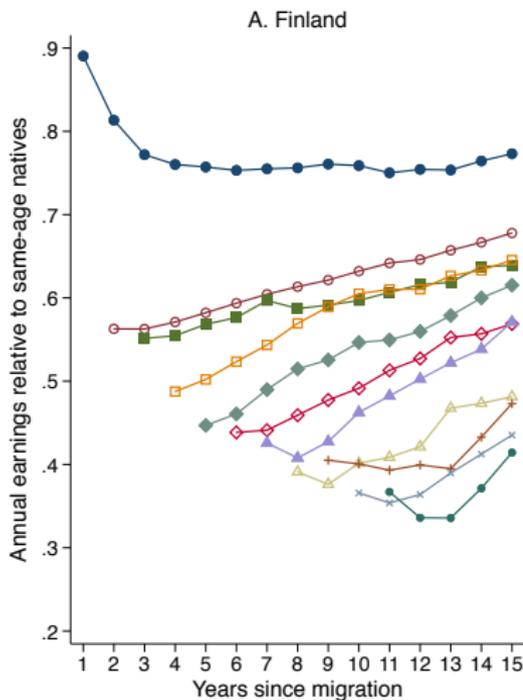


Region of origin strongly predicts time until first job in both countries.

Note: Hazard rates for region of origin fixed-effects from a proportional hazard model of time until first job. The specification also include sex, age, family status, local unemployment rate, local immigrant share, local own-group share (immigrants from the same region of origin) and year of arrival fixed-effects. The omitted categories are Swedes in Finland and Finns in Sweden.

Assimilation profiles by time to first job

Ansala, Åslund, Sarvimäki (ongoing)



Ethnic networks

Åslund, Hensvik, Skans (2014)

Table 2
Cross-Sectional Estimates of the Effects of Manager Origin

	Probability That Job Is Filled by an Immigrant					
	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant manager	.143 (.007)	.111 (.006)	.083 (.007)	.066 (.005)	.058 (.005)	.051 (.006)
Establishment immigrant share				.609 (.009)	.515 (.009)	.396 (.011)
R^2	.008	.035	.185	.055	.068	.195
Fixed effects	Y	Y × M	Y × M × I	Y	Y × M	Y × M × I

NOTE.—Each column represents a separate regression. Fixed effects: Y = year, M = municipality, I = five-digit NACE Industry. All regressions control for establishment size dummies of 10 employee intervals. The establishment immigrant share excludes the manager and the new hires. Sample is establishments with 2–50 employees. Observations = 757,278. Standard errors robust for clustering at the establishment level are shown in parentheses. Mean dependent variable is .064.

First-generation integration: Final thoughts

- In my view, particularly interesting topics include
 - comparisons of integration patterns across immigrants groups, arrival cohorts and host countries
 - temporary migration / outmigration
 - digging deeper: jobs, firms, occupations, neighborhoods, networks, spouses...

First-generation integration: Final thoughts

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 - comparisons of integration patters across immigrants groups, arrival cohorts and host countries
 - temporary migration / outmigration
 - digging deeper: jobs, firms, occupations, neighborhoods, networks, spouses...
- Writing a (good) integration paper is hard
 - easy to get lost in details → *plan* before you start data work
 - motivation, clear writing and informative figures essential

Children of immigrants

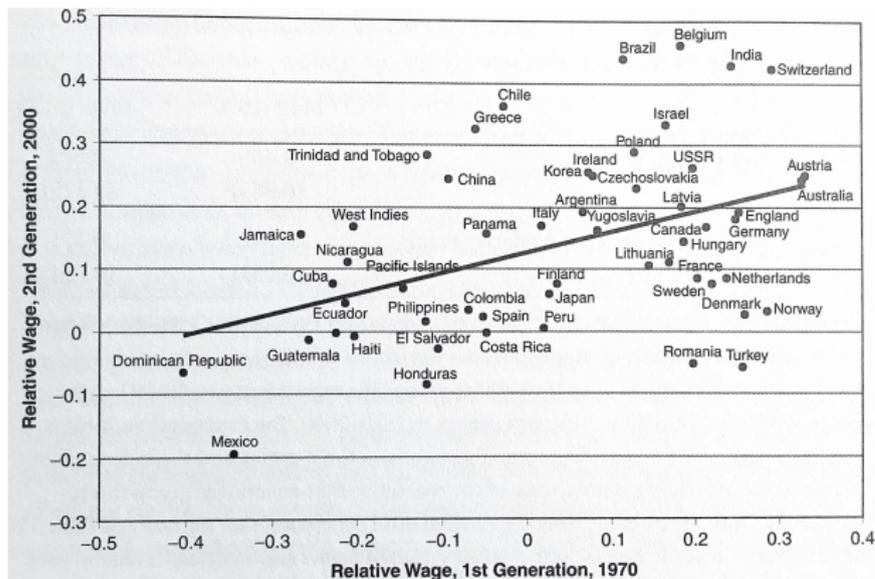
- The long-term impact of immigration ultimately depends on the integration of immigrants' children. The big picture:
 - children of immigrants fare better than their parents
 - in the US they also fare better than natives
 - strong correlation between first generation and their childrens earnings (at source country level)

Children of immigrants

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 - children of immigrants fare better than their parents
 - in the US they also fare better than natives
 - strong correlation between first generation and their childrens earnings (at source country level)
- Theory of ethnic capital (Borjas 1992)
 - production of skills depends on parental input and the overall quality of childhood "ethnic environment"
 - this leads to intergenerational persistence of skills over and above IG persistence from other sources (parents, schools etc.)

Earnings gaps: United States

Borjas (2014)



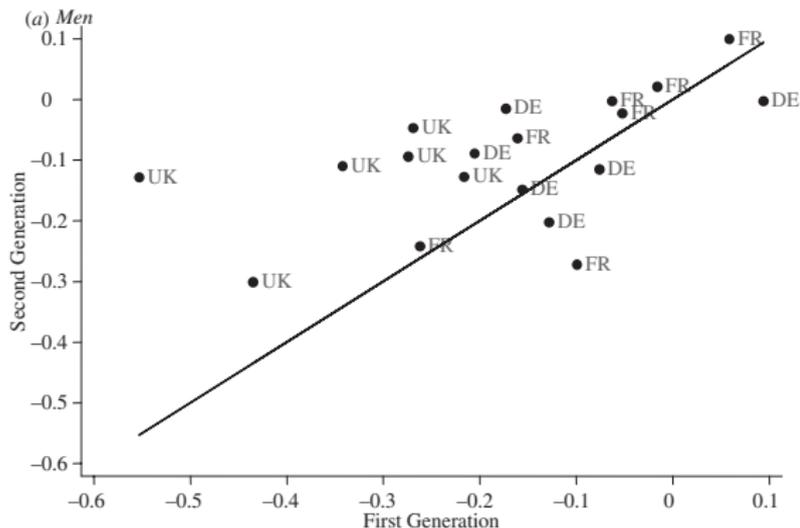
Children of immigrants tend to earn **more** than “natives”.

Country of origin level inter-generational correlations 0.49-0.59 (depending on time period)

This is somewhat larger than typical *individual-level* IG correlations (but hard to compare due to differences in measurement error).

Earnings gaps: France, UK and Germany

Algan, Dustmann, Glitz, Manning (2010)



Children of immigrants tend to earn **less** than “natives” in Europe.

The gaps tend to be smaller than in the UK, but quite persistent in Germany and, particularly, in France (note that here the line is 45° -line).

On the other hand, first generation immigrants fare the worse in the UK and children are have relatively similar earnings in all countries.

Achievement gap and parental education

Dustmann, Frattini, Lanzara (2012)

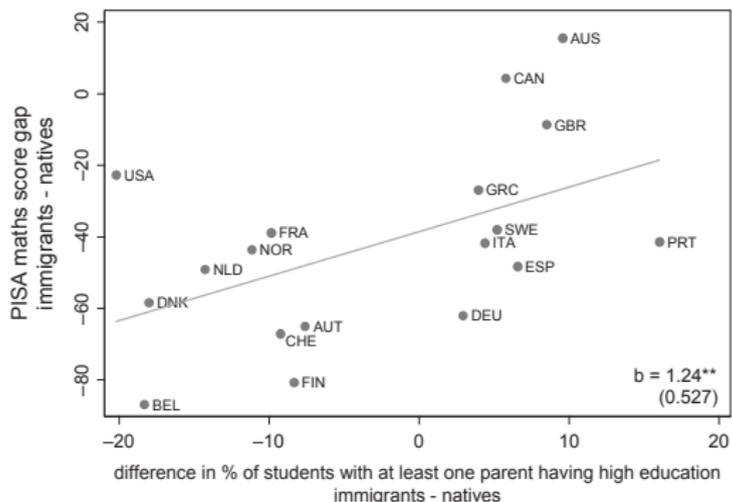


Figure 2. Immigrant–native gaps in parental education and maths test scores

Note: The figure plots the average gap in mathematics test scores between immigrants and natives versus the difference in the share of immigrant and native students with at least one parent who has tertiary education.
Source: PISA 2006.

Note that here each point refers to immigrant-native differences within a *host* country.

Age at arrival

Bleakley and Chin (2004)

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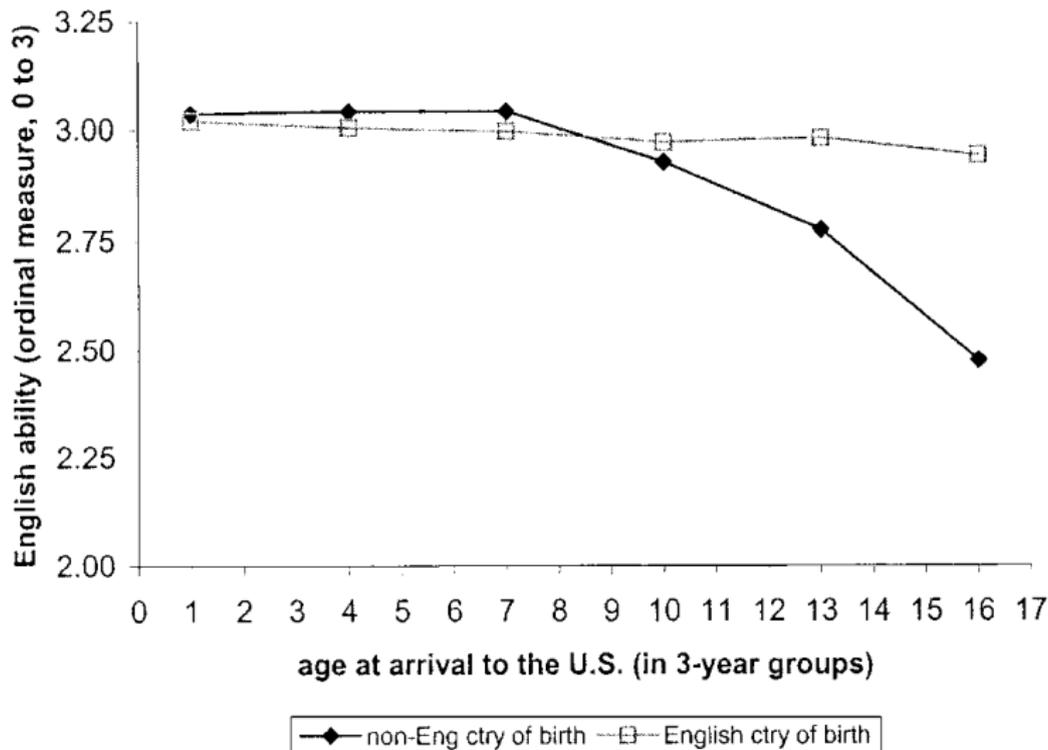
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- Results
 - a significant positive effect of English proficiency on wages among adults who immigrated to the United States as children
 - much of this effect appears to be mediated through education

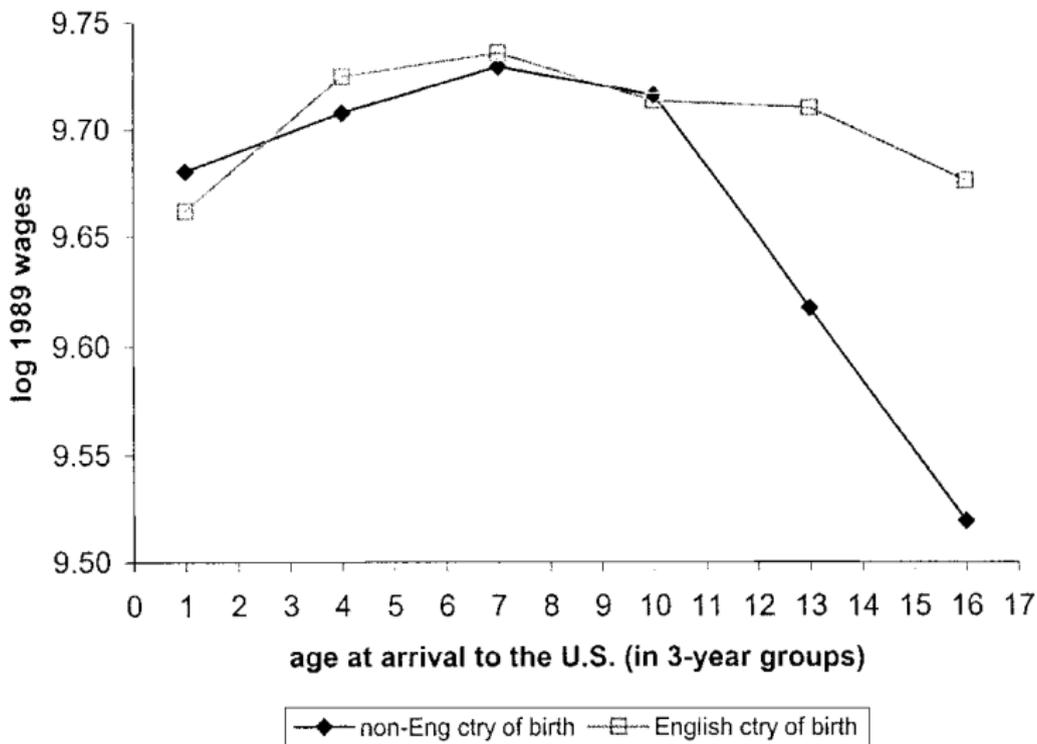
Language skills and age at arrival, US

Bleakley and Chin (2004)



Log wages and age at arrival, US

Bleakley and Chin (2004)



Returns to language skills, US

Bleakley and Chin (2004)

TABLE 3.—EFFECT ON LOG ANNUAL WAGES—BASE RESULTS

Dependent variable: Mean for non-English-speaking country:	English Ability 2.7693		Log Annual Wages 9.6699			
	OLS (1)	OLS (2)	OLS (3)	OLS (4)	2SLS (5)	2SLS (6)
Endogenous regressor:						
English-speaking ability (scale of 0 to 3, 3 = best)			0.2225*** (0.0093)	0.2219*** (0.0093)	0.3286*** (0.1060)	0.3335*** (0.1054)
Identifying instrument:						
max(0, age at arrival - 11) × (non- English-speaking country of birth)	-0.0771*** (0.0021)	-0.0776*** (0.0021)				
Controls:						
max(0, age at arrival - 11)	-0.0022*** (0.0014)		-0.0121*** (0.0030)		-0.0047 (0.0082)	
Age-at-arrival dummies	No	Yes	No	Yes	No	Yes
Country-of-birth dummies	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.2328	0.2352	0.1125	0.1125		

See notes for table 2. The country-of-birth dummies are based on IPUMS detailed birthplace codes.

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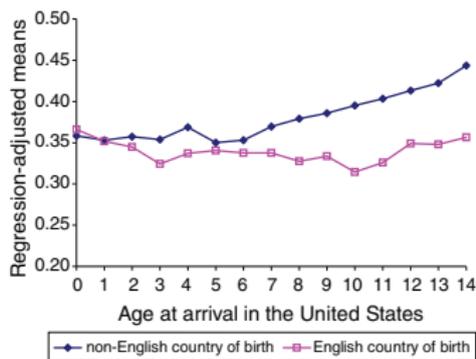
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- Why is IV larger than OLS?
 - BC argue that nonlinearities an unlikely explanation
 - measurement error more likely candidate; BC provide an exceptionally good discussion of nonclassical meas. error

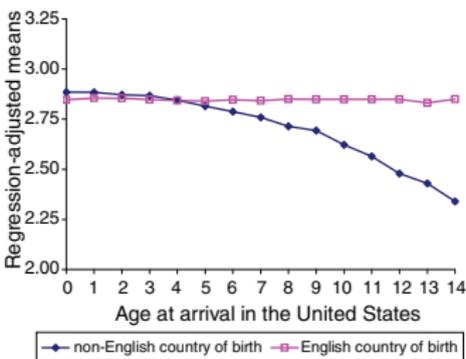
Age at arrival and social integration, US

Bleakly and Chin (2010)

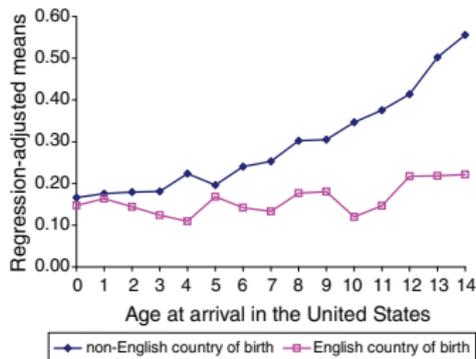
Panel A. Currently married with spouse present



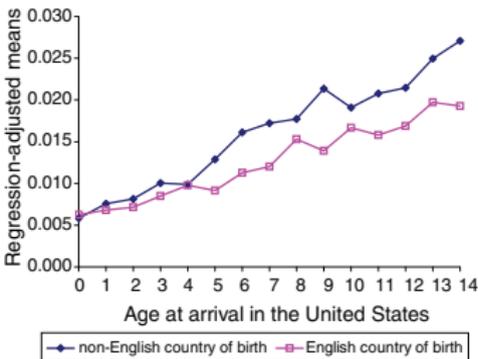
Panel B. Spouse's English-speaking ability



Panel C. Number of children living in same household

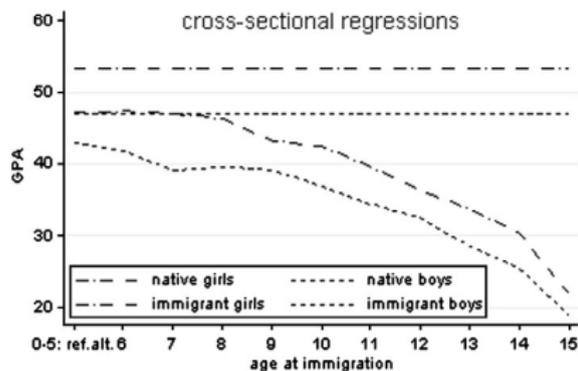
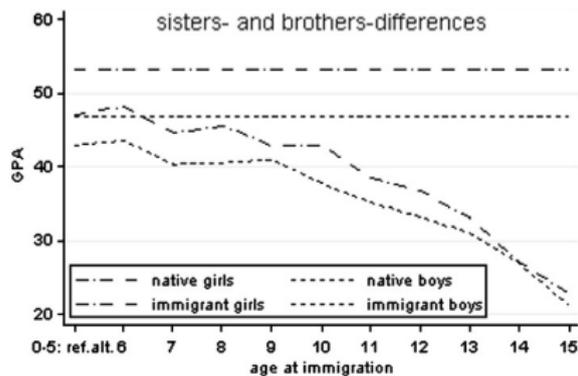


Panel D. Fraction of PUMA population from same country of birth



Age at arrival and GPA at age 14, Sweden

Böhlmark (2008)



- The top panel presents within family comparisons
 - i.e. compares GPAs of older and younger siblings
- The bottom panel presents results without family FEs
 - (surprisingly) family FEs do not matter much

Impact of local ethnic community

Åslund, Edin, Fredriksson, Grönqvist (2011)

- Question
 - the impact of ethnic community on refugee children
 - problem: endogenous sorting into neighborhoods
- Research design
 - Swedish refugee placement policy, 1987–1991
 - refugees couldn't choose their initial municipality of residence
 - allocation plausibly exogenous wrt unobservable characteristics
- Results
 - positive impact of being allocated into a neighborhood with a larger share of highly educated immigrants of the same origin
 - naive correlations would lead to opposite conclusion

Impact of local ethnic community

Åslund, Edin, Fredriksson, Grönqvist (2011)

Main estimation equation

$$y_{ics} = \alpha x_i + \beta_1^e \ln N_{cs}^e + \beta_2^e \ln h_{cs}^e + \lambda_s + \lambda_c + \epsilon_{ics}$$

where x_i is background characteristics of individual i (age at immigration, mother's age, mother's and father's level of education, gender, family size), N_{cs}^e is the number of adult countrymen living in neighborhood s , h_{cs}^e is the fraction of these countrymen who are high-educated, λ_s is neighborhood fixed-effects and λ_c is country of origin fixed-effects. Parent(s) of the individual when calculating the neighborhood characteristics.

- Neighborhood variables measured at the time of immigration
 - this is the “good variation” created by the placement policy
- ... and used as instruments for average exposure (until graduation from compulsory education) in some specifications

Impact of local ethnic community: ITT estimates

Åslund, Edin, Fredriksson, Grönqvist (2011)

TABLE 4—THE EFFECTS OF NEIGHBORHOOD CHARACTERISTICS ON THE PROBABILITY OF GRADUATING FROM UPPER-SECONDARY SCHOOL BY AGE 19

	Total sample	By gender		By parental education		By age at immigration	
	(1)	Boy	Girl	Academic family	Nonacademic family	0–6	7+
		(2)	(3)	(4)	(5)	(6)	(7)
Size of ethnic community	0.007 (0.005)	0.018** (0.007)	–0.008 (0.008)	0.002 (0.009)	0.013* (0.008)	0.008 (0.010)	0.005 (0.007)
Share high educated	0.011 (0.008)	0.020* (0.012)	0.004 (0.013)	–0.002 (0.016)	0.023* (0.012)	0.033* (0.017)	0.002 (0.012)
(Initial) SAMS FE:s	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ethnic group FE:s	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE:s	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year of graduation FE:s	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean (SD) of the dependent variable	0.426 (0.494)	0.380 (0.485)	0.477 (0.500)	0.516 (0.500)	0.346 (0.476)	0.530 (0.499)	0.357 (0.479)
Observations	20,039	10,598	9,441	9,407	10,632	7,940	12,099

Notes: Neighborhood characteristics are measured in logs. The sample consists of refugee immigrants whose parents arrived during 1987–1991 and who completed compulsory school no later than 2003. Graduation from upper-secondary school is observed through 2009. Where appropriate, the regressions control linearly for the subject’s and the mother’s age, and include dummies for each parent’s educational attainment (five levels), family size, gender, and missing values. Standard errors robust for clustering at the SAMS*ethnic group level in parentheses. “Academic family” is defined as having at least one parent who has completed at least university preparatory upper-secondary school.

Impact of local ethnic community: IV estimates

Åslund, Edin, Fredriksson, Grönqvist (2011)

TABLE 5—IV ESTIMATES OF THE EFFECTS OF AVERAGE EXPOSURE TO NEIGHBORHOOD CHARACTERISTICS ON COMPULSORY SCHOOL GPA

	Total sample (1)	By gender		By parental education		By age at immigration	
		Boy (2)	Girl (3)	Academic family (4)	Nonacademic family (5)	0–6 (6)	7+ (7)
Size of ethnic community	1.192 (0.763)	3.069*** (1.054)	−0.586 (1.043)	0.474 (1.189)	1.872* (0.985)	3.310** (1.625)	−0.279 (0.800)
Share high educated	4.665* (2.459)	5.458* (2.916)	3.921 (3.745)	7.714* (4.641)	3.207 (2.694)	11.941** (4.681)	0.285 (2.604)
(Initial) SAMS FE:s	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ethnic group FE:s	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year of arrival FE:s	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year of graduation FE:s	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean (SD) of the dependent variable	40.45 (27.96)	36.60 (26.86)	44.78 (28.54)	48.13 (28.53)	33.67 (25.60)	44.11 (28.37)	38.05 (27.43)
Observations	20,039	10,598	9,441	9,407	10,632	7,940	12,099

Notes: 2SLS estimates. Neighborhood characteristics are measured in logs and averaged over the observation period from year of arrival to graduation from compulsory school. The sample consists of refugee immigrants whose parents arrived during 1987–1991 and who completed compulsory school no later than 2003. The regressions control linearly for the subject’s and the mother’s age, and include dummies for each parent’s educational attainment, family size, gender, and missing values. Standard errors robust for clustering at the SAMS*ethnic group level in parentheses.

Children of immigrants: Final thoughts

- An important topic that deserves more research
- In my view, the most important topics include
 - neighborhood effects
 - contacts / influence of parents' country of origin
 - determinants of social and political interaction
 - differences btw immigrants' children and other high-risk groups
 - comparisons of direct IG correlation estimates
 - impacts of interventions (more about this tomorrow)

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