

REMEMBER THE DEADLINE

FOR A GROUP FORMATION and choice of topic for your LEII assignment

TOMORROW, FRIDAY 1 FEBRUARY, 11AM!!!

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PERFORMANCE	OF IMMIGRANTS
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Important (we know from the last lecture):

Selectivity – how immigrants perform relative to natives and how fast they "catch up" wrt natives

Skills transferability & transferability of occupation,

Investment into post-migration training.

The following Qs important:

• how do immigrants fare relative to natives? Do they integrate/assimilate into host labor markets?

•Do skill transfer across countries?

 Does the performance of immigrants changes over time? Is it true that recent immigrants are not performing as well as the previous immigrants?



 Immigrants typically have worse labor market outcomes than natives when they first arrive in destination and then converge towards natives over time

· Economists analyze "age/earnings" and "age/employment" profiles

 Seminal work by Barry Chiswick (1978), use of a cross section to analyze immigrants earnings.

• Estimate a Mincerian equation:

$$Ln(Earn) = b_0 + b_1 E du + b_2 E X P + b_3 E X P^2 + b_4 Y S M + b_5 Y S M^2 + b_6 I M M + \varepsilon$$





• Earlier study by Barry Chiswick (1978) using 1970 census data finds that immigrants start off earning less than natives; immigrants' earnings grow faster than natives'; immigrants earnings eventually surpass natives. Specifically Chiswick (1978) finds that male immigrants earn:

•10% less than male natives after 5 years in the US

- •The same as natives after 13 in the US
- .6% more than natives after 20 years in the US, and
- •13% more than natives after 30 years in the US

•The pattern does not hold for later years – several reasons: a different mix of origins with lower levels of education then recent US, lower levels of English fluency..

•Critique of the Chiswick's approach: A strong assumption that recent immigrants will earn the same with the duration of stay in destination.

•If cohort "quality" decreases over time – the analyses using a cross section would overestimate how much wages increase for a given cohort of immigrants.



 Later analyses dig deeper into immigrant cohort differences over time - analyses of cohort differences in assimilation starting with Borjas (1985) study – use of repeated cross sections to examine e.g. how do immigrants that arrived in 1960s fare in 190s, 1980s and so on.

• a critique of Borjas approach – a synthetic cohort, i.e. does not follow the same people over time, it is not a TRUE cohort; ignores deaths and return migration..

 to observe immigrant assimilation it is necessary to have a panel/longitudinal data of individual => observe the same individuals over time



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· Possible explanation of lower immigrants' relative wages:

Relative decline in their skills (educational attainment of immigrants rise more slowly than among US natives)



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· Possible explanation of lower immigrants' relative wages:

 Relative decline in their skills (educational attainment of immigrants rise more slowly than among US natives)

- Shift in the mix of origins – previously traditional European countries of origin, recently more shift towards Asian and Latin American origins

· Immigrants not as fluent in English as earlier cohorts

 Changes in macroeconomic conditions – recent immigrants may face more adverse conditions – this may depress earnings at entry and earnings growth over time (Barth, Bratsberg and Raaum, 2004 and 2006; see also Aaslund and Rath, 2007 using Swedish data).

-Different evidences from Canada (Aydemir and Skuterud, 2005 – wages lower at arrival, but growth the same across different cohorts), from UK recent cohorts earning more than earlier (Lemos, 2013)

 It seems as immigrants from European or other OECD countries tend to do better than others in western countries – differences in language fluency plays a role.

It depends on comparison group too (natives with similar edu, skills, ..., earlier arrivals, ..)

ASSIMILATION OF IMMIGRANTS – earnings and employment, gender perspective Gender differences in earnings and labor force participation (e.g. in 2010, 23% gap in labor force participation of immigrant women, compared to 10% gap for natives) depending on origins with different gender social norms Also US born woman married to foreign-born man is less likely to work if the man is from a country with a low female labor force participation rate

ASSIMILATION OF IMMIGRANTS – accounting for return migration

• Selective out-migration may bias estimates of assimilation –as we talked, if negative selection in out-migration then the estimates will be upward biased...

 Lubotsky (2007) using a panel data assess the biased caused by selective out-migration – he finds that the ethnic wage gap closes twice as slowly when using panel data instead of repeated cross sections. Thus he finds that low-wage earners leave/negative selection in outmigration





ASSIMILATION OF IMMIGRANTS - the role of language

- Language proficiency is extremely important for international migrants.
- Better language proficiency => easier assimilation in the host country, greater returns to HC, better job opportunities and job matches.
- language skills influence a number of non-economic outcomes such as social integration, the size of the migrant's social network, political participation and civic engagement, educational attainment, health outcomes and family life.
- BUT many immigrants have poor host language skills and struggle to acquire them. Insights on the role of language in international migration, and into the underlying processes and factors that determine migrants' proficiency, are crucial for the successful design of policy measures that address the hurdles of language acquisition.
- In previous lectures the role of language as migration determinant.
- Here: (1) determinants of language proficiency among migrants, and (2) effects of immigrants' linguistic skills and language acquisition on their labour market and socio-economic outcomes.
- For interested in the topic of language in migration, see:

Adsera, A. and M. Pytliková (2016): "Language and Migration" *In* Ginsburg, V. and O. Weber (eds) "*The Palgrave Handbook of Economics and Language*". Palgrave Macmillan. February 2016. ISBN 978-1-137-32504-4.

Language proficiency among migrants

- <u>3 Es of language proficiency (Chiswick, 1991; Chiswick and Miller, 1995, 2014):</u>
 - EXPOSURE to the host language,
 - EFFICIENCY in language acquisition and
 - ECONOMIC INCENTIVES to learn a new language.

Exposure of immigrants to language learning

- Exposure to the host country language prior to or after migrating.
- Pre-migration exposure e.g. foreign language classes and courses at schools.
 Some countries open special language classes for workers who are still at home;
 People can also be exposed to foreign language through the media or the internet, software and games designed to teach languages, TV and books.
- research in the area studies the role of former colonies, multiple official languages and neighbouring countries (Chiswick and Miller, 2001; Isphording, 2014). E.g. people coming from former British or US colonies (such as India, Nigeria or the Philippines) or from countries where English is among the official or main-spoken languages (e.g. Australia or Canada) tend to be proficient in English.
- Most existing research, however, relates to post-migration exposure to the destination language.



Affected by language used by family or household members. Children affect their parents' proficiency as they can serve as teachers (Chiswick, 1998; Chiswick and Miller, 2005, 2007, 2008).

Language proficiency among migrants - efficiency

- It is not equally easy for all newcomers to learn the language of their host country. Key factors:
- Age at immigration -> a negative relationship between age of arrival and language acquisition. There is a long-standing debate among linguists on the age range within which language learning is almost effortless and after which it becomes much more difficult to become fluent and have no foreign accent (Chiswick and Miller, 2001, 2008; Mayberry et al., 2001; Isphording and Otten, 2013).
- Linguistic distance: easier for immigrants to acquire a language if their own language is linguistically closer (Chiswick and Miller, 2001, 2005; Isphording, 2014; Isphording and Otten, 2014). Isphording (2014) shows that immigrants drop behind native speakers in their literacy score as the distance between the language of origin and destination increases. He also shows that linguistic distance interacts with the effect of age at arrival: immigrants who moved after age 11 and come from linguistically distant countries are the most disadvantaged.
- · Education highly educated immigrants tend to be more proficient & faster learners
- motivation, psychological factors and cognitive abilities. These differ according to whether migrants move for economic reasons, family reasons or whether they are refugee. The literature confirms that economic migrants are more proficient in the host country language than refugees, while family-based migrants are somewhere inbetween (Chiswick and Miller, 2006, 2007).



Language and returns to HC - methodology

- Problems: (1)reverse causality proficiency might be affected by the outcomes; (2) the lang fluency likely to be correlated with other unobserved factors that may also impact on earnings e.g. openness to new surroundings, exchanges with natives, extent of the migrant's networks, immigrant ability or attitudes towards preserving origin country culture; (3) a problem of measurement error stemming from selfreported language proficiency. => OLS biased.
- strategies to tackle the problems: (1) IV approach, e.g. veteran status, foreign inter-marriage, children, minority languages concentration measures (e.g. in Chiswick and Miller, 1994; Chiswick, 1998), father's education (Dustmann and van Soest, 2002), language of the interview used in the survey (Shields and Wheatley, 2002) and age of arrival (most popular, Bleakley and Chin, 2004, 2010).
- · Example:

Language and returns to HC - methodology

- Bleakley and Chin (RESTAT2004) use individual-level data from the US Census of 1990 to study how earnings of immigrants who arrived before age 18, and were 25–38 years old in 1990, were related to their age at arrival. Consistent with the existence of a critical period of language acquisition, they show that there are no significant differences in adult English proficiency among immigrants from English and non-English speaking countries who migrated very early in life.
- Bleakley and Chin (2004) provide an identification strategy for the causal impact of language proficiency on earnings by exploiting these differences between younger and older arrivals on English language skills to construct an instrumental variable for English proficiency.
- They estimate a first stage equation by OLS for English proficiency *ENG*_{ija} for an individual *i* born in country *j* who arrived in the US at age *a*:

$$ENG_{ija} = \alpha_1 + \pi_1 k_{ija} + \gamma_{1j} + \delta_{1a} + X_{ija}\rho + \varepsilon_{ija}, \quad (1)$$

• Where γ_{1j} are FE of country of birth, δ_{1a} is fixed age at arrival effects, and X_{ija} is a vector of exogenous explanatory variables (sex, race, age).

Language and returns to HC - methodology

Given that outcomes obtained by immigrants arriving from English and non-English speaking countries start to diverge after the age of arrival of 11, they use as IV for language proficiency a variable constructed by interacting *a*, the age at arrival (beyond the critical age of 11) and where *I(j)* takes the value 1 when the country of origin *j* is non-English speaking:

$$k_{ija} = \max(0, a - 11) \times I(j)$$
 (2)

• Results point to a strong negative relationship between English proficiency and the instrument k_{ija} in (2). Using fitted values for English proficiency from (1), they estimate a second stage equation where the dependent variable is the annual wage rate:

$$\ln W_{ija} = \alpha + \beta ENG^*_{ija} + \gamma_j + \delta_a + X_{ija} + \eta_{ija}, \quad (3)$$

Where ENG_{in}^{*} are the fitted values obtained from regression (1). The estimated impact of language proficiency on earnings is higher in IV than OLS estimates.

Overall, a 1unit increase of English ability (a variable that ranges from 0 to 3) implies an increase of about 0.33 (log) wages in very basic models. Higher educational attainment seems to be responsible for about 90 per cent of the impact of language fluency on earnings.

The English-speaking ability measure is coded as 0 for not speaking English at all, 1 for speaking English not well, 2 for speaking English well, and 3 for speaking English very well

ASSIMILATION OF IMMIGRANTS - marriage, fertility and health

- Marriages between immigrants and natives facilitate immigrants' economic and cultural assimilation into the destination country. But, the more assimilated immigrants are, the more likely they are to marry a native. Such marriages are also an indicator of natives' acceptance of immigrants.
- "intermarriages" are more likely for immigrants that stayed longer in the destination, arrived at a younger age, are more educated, live outside an ethnic enclave or are more proficient in the language of the destination (Furtado and Trejo, 2013).
- "intermarriages" affect a number of outcomes: increase immigrants' proficiency, may help find a better job broadening their social network (Meng and Gregory, 2005, marrying a native brings a 20% wage premium)
- Immigrants\ fertility usually converges towards the fertility of natives (Adsera and Ferrer, 2014a).
- Immigrants tend to be healthier than natives and than people who remain in origins. Immigrants who are in ill health are more likely to return to their home countries.

THE SECOND GENERATION

- Significant share of destination population (In the U.S. more than one in eight natives has at least one parent foreign-born)
- Intergenerational mobility:
 - Measuring: income, wealth, education, occupation, socioeconomic status, but also fertility behavior, language proficiency, marriage and ethnic identity,
 - Understanding mechanisms by which the outcomes came about
 - 1st gen, 1.5 gen, 2nd gen, 2.5 gen, 3rd gen, 4th gen...
- Absolute and relative mobility
 - Absolute whether one generation does better or worse than another generation in levels, e.g. whether children earn more or less than their parents (adjusted for inflation). Data needed – average generational, or family members across generations.
 - Relative compares generational relative position in the distribution, e.g. parents vs children's position in income distribution. Usage of *transition matrixes*.

THE SECOND GENERATION

transition matrix – shows probability of people in one generation being in a higher, lower or the same place in the distribution than people in another generation

pijprobability parents' quintile child's quintile	Child's position in income distribution						
	-				-		
-	Quintile	Botton	Second	Middle	Fourth	Тор	
	Bottom	p11	p12	p13	p14	p15	
	Second	p21	p22	p23	p24	p25	
Father's position in income distribution	Middle	p31	p32	p33	p34	p35	
	Fourth	p41	p42	p43	p44	p45	
	Тор	p51	p52	p53	p54	p55	

Source: Bansak, Simpson and Zavodny (2015) pp.131

		Child's position in income distributio			
mmigrants	Quartile	Bottom	Second	Third	Тор
	Bottom	45	28	17	10
Father's position in income	Second	30	29	26	15
distribution	Third	12	29	25	34
	Тор	13	14	32	41
Vatives	Quartile	Bottom	Second	Third	Тор
	Bottom	37	25	20	17
Father's position in income	Second	29	29	22	21
distribution	Third	17	27	30	26
	Тор	15	18	30	37

- Inter-generational transmissions and intergenerational elasticities
- elasticities measure how closely related outcomes are across generations, the typical model economists use:

 $Outcome_{i_{t+1}} = b_0 + b_1 Outcome_{i_t} + \varepsilon$

- i..indexes groups or families (e.g. ethnic group or father-son combinations)
- If b1=1 there is a complete intergenerational transmission, i.e. children's outcomes are exactly as their parents (everyone is on the diagonal in the transition matrix)
- If b1=0, there is no intergenerational transmission, i.e. children's outcomes are not related to their parents' outcomes.
- Longitudinal/panel data needed
 - Analyses based on cross-sections are biased different compositions/cohorts etc.
 - repeated cross-sections are better (e.g. comparing the first generation in 1950 and then the second 20-30 years later) BUT risk capturing life-cycle differences due to age.
 - Data that enables connecting parents and children are ideal for tracking intergenerational mobility
 - Inclusion of ethnic capital-an indicator for persons i's membership in ethnic group j.

$$Outcome_{i_{t+1}} = b_0 + b_1 Outcome_{i_t} + \sum b_{jt} E_{ij} + \varepsilon$$

SECOND GENERATIONS

- the extent of intergenerational mobility depends on a number of other outcomes (e.g. country-specific like labor market institutions- minimum wages, level of inequality, the structure of educational system),
- In the U.S. the second generation of immigrants tend to do better than the first generation. But the progress slows down with the third plus generation.

Table: Average income	gap relative to third-	plus-generation, men,	by year, U.S.
			·· , , · · · , · · · ·

Year	1st gen	2nd gen
1950	0,30%	3,60%
1970	-6,70%	7,30%
1994-1996	-25,30%	2%
2011-2013	-23,70%	-2,40%

Source: Bansak, Simpson and Zavodny (2015), Table 6.1., pg 133,, calculations based on men 25-64 years, controlling for age, education, state of residence, using 1950 and 1970 census, and 1994-96, and 2011-13 March CPS.

- Reasons why 2nd generations in the US do better:
 - Tend to be better educated
 - Receive their education in the U.S. likely to be fluent in English
 - Better informed about opportunities on the U.S. labor market
 - Broader social networks
 - Less likely to live in ethnic enclaves
 - Origins tend to matter too:
 - more developed countries, with the same language spoken, less inequality, (Borjas 1993;)
 - Teens with immigrant parents spend their time differently than native teens e.g. Asian students tend to study much more. E.g. Asian mother spend more time engaged in educational activities with their children than other mothers (tiger mothers. Ramey, 2011)
- A bit different pattern in Sweden (Hammerstedt, 2009) compares 1,2,3 and 4th gen. The first earns more than 4th, 2nd the same as 4th, and 3rd less than 4th. Possible mechanisms: Selectivity and macroeconomic cycle.

SECOND GENER	ATIONS								
 Other outcomes language profic 	s than inco iency, mai	omes riage	– edu e, fertil	cationa ity, see	al attair e e.g. B	nment lau et	t, labor t al, (20	supply)13)	Ι,
EDUCATION:	140 Immigrant S	election a	nd Assimilat	ion					
	Table 6.3 Educatio	onal attai % not c	inment by i	mmigrant ş	generation	% attended college			
		Ist gen. 2nd gen. 3rd+ gen.		3rd+ gen.	lst gen.	. 2nd gen.		3rd+ ge	
			1	2			1	2	
			immigrant parent	immigrant parents			immigrant parent	immigrant parents	
	Canada	23	immigrant parent	immigrant parents	24	45	immigrant parent 44	immigrant parents 50	37
	Canada France	23 43	immigrant parent 19 24	immigrant parents 14 26	24 23	45 26	immigrant parent 44 35	immigrant parents 50 29	37 31
	Canada France Germany	23 43 34	immigrant parent 19 24 -	immigrant parents 14 26 19	24 23 8	45 26 27	immigrant parent 44 35 28	immigrant parents 50 29 14	37 31 27
	Canada France Germany Ireland	23 43 34 16	immigrant parent 19 24 - 19	immigrant parents 14 26 19 	24 23 8 28	45 26 27 47	immigrant parent 44 35 28 47	immigrant parents 50 29 14 53	37 31 27 34
	Canada France Germany Ireland Netherlands	23 43 34 16 37	immigrant parent 19 24 - 19 24 24	immigrant parents 14 26 19 - 29	24 23 8 28 22	45 26 27 47 27	immigrant parent 44 35 28 47 35	immigrant parents 50 29 14 53 29	37 31 27 34 35
	Canada France Germany Ireland Netherlands Spain	23 43 34 16 37 40	immigrant parent 19 24 - 19 24 33	immigrant parents 14 26 19 - 29 55	24 23 8 28 22 43	45 26 27 47 27 24	immigrant parent 44 35 28 47 35 40	immigrant parents 50 29 14 53 29 21	37 31 27 34 35 35
	Canada France Germany Ireland Netherlands Spain Sweden	23 43 34 16 37 40 29	immigrant parent 19 24 - 19 24 33 14	immigrant parents 14 26 19 29 55 15	24 23 8 28 22 43 13	45 26 27 47 27 24 35	immigrant parent 44 35 28 47 35 40 32	immigrant parents 50 29 14 53 29 21 28	37 31 27 34 35 35 34
	Canada France Germany Ireland Netherlands Spain Sweden Switzerland	23 43 34 16 37 40 29 27	immigrant parent 19 24 - 19 24 33 14 6	immigrant parents 14 26 19 29 55 15 7	24 23 8 28 22 43 13 5	45 26 27 47 27 24 35 35	immigrant parent 44 35 28 47 35 40 32 39	immigrant parents 50 29 14 53 29 21 28 34	37 31 27 34 35 35 35 34 36
	Canada France Germany Ireland Netherlands Spain Sweden Switzerland United Kingdom	23 43 34 16 37 40 29 27 20	immigrant parent 19 24 19 24 33 14 6 20	immigrant parents 14 26 19 29 55 15 7 22	24 23 8 28 22 43 13 5 25	45 26 27 47 27 24 35 35 35 34	immigrant parent 44 35 28 47 35 40 32 39 43	immigrant parents 50 29 14 53 29 21 28 34 34 45	37 31 27 34 35 35 35 34 36 33

EDUCATION:

- In most countries 2nd gen is more educated than 1^{st,}
- In the US (but also evidence from a few other countries show that) the 3rd generation is not much more educated than the 2nd => it seems as the educational progress is made mostly in the 2nd generation and then it stops.
- Other perspective use performance on standardized tests, see e.g. Dustmann, Frattini and Lanzana, (2012): scores on maths and reading strongly related to education levels among the first generation. In countries where immigrants tend to have higher levels of education, e.g. Australia and Canada, the 2nd generation tend to do at least as well as the 3rd plus gen. But in countries with immigrant parents less educated such as DK, GER, NOR and SWE, the 2nd gen does worse than the 3rd plus gen on exams.
- Several factors affect how the 2nd generation fares in terms of education:
 - Parental education (intergenerational transmission strong)
 - The educational structure having open, inclusive systems that integrate better
 - Granting citizenship better involvement of parents

SECOND GENERATIONS

LANGUAGE PROFICIENCY

Most of the 2^{nd} and higher gen immigrants are proficient in language by the time they finish a school.

Bilingualism is associated with cognitive advantages, bilinguals tend to complete more education than monolinguals, when parental education and income are controlled for, but they do not earn more (e.g. Fry and Lowell, 2003 – but, a study of Kalist, 2005 indicates nurses in the US who speak Spanish earn 7% more).

MARRIAGE and FERTILITY:

- as discussed earlier an indicator of assimilation too.
- In the US, 1st gen immigrants more likely to be married to another 1st gen immigrant than to native, while natives more likely to be married to a native. 2nd gen 3 out of 5 marry a native, 1 in 5 another 2nd gen, and 1 in 5 a 1st gen immigrant (for 1994-96, Card, DiNardo and Estes, 2000).
- Age matters younger have higher probability to marry within their ethnic group.
- "assortative mating" stronger than inter-ethnic mating (Furtado and Theodoropoulus, 2011)
- Fertility rates of 2nd gen are positively related to fertility of 1st gen (intergenerational elasticity of 0,4 from 1st to 2nd gen immigrants, Blaue et al, 2013). Partly explained by intergenerational transmission of gender roles and cultural attitudes (Blau et al, 2013).
- Fertility rates of 2nd gen are also positively related to fertility rates in country of origin of 1st generations (Fernandez and Fogli, 2009).

SECOND GENERATIONS

LABOR MARKET OUTCOMES:

- as discussed in previous lecture an indicator of assimilation too.
- Differences across countries in performance in labor market outcomes of 2nd gen and 3+gen.
- Not much research idea for future research?...

Check out the New York Times "Immigration Explorer" Interactive Map:

http://www.nytimes.com/interactive/2009/03/10/us/20090310-immigrationexplorer.html? r=0

