From Latin-America to Western Europe

Intergenerational occupational class mobility of migrants and non-migrants

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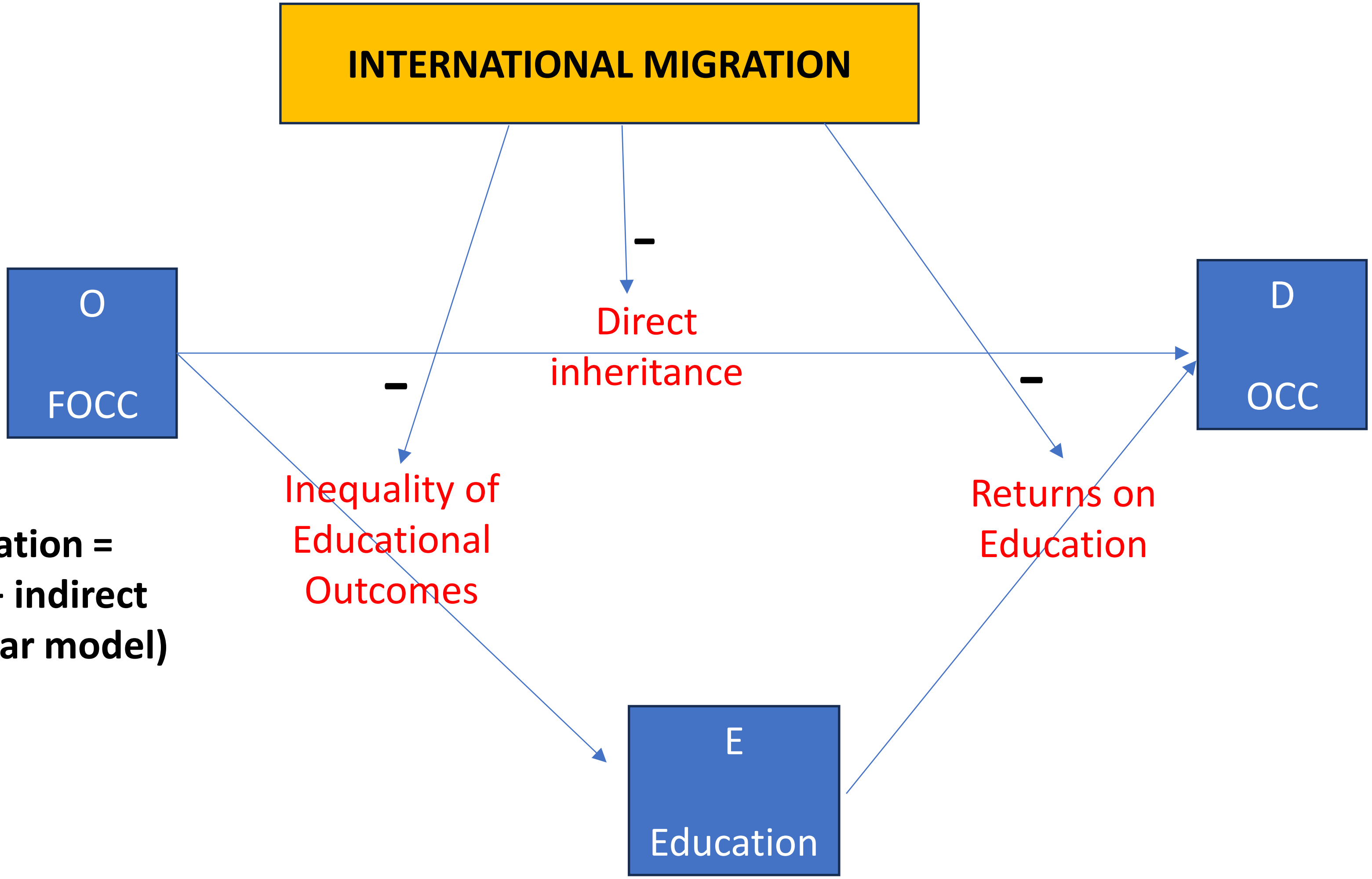
References

- This research is an extension of: Jaime, Sofia, “Migrating for the Better? Intergenerational Occupational Mobility and Labor Market Outcomes of Argentinian Migrants in Spain and Israel”, MA Thesis Universidad Carlos III, Madrid ES, 2022.
- Earlier presentation: “From Latin America to Europe. Contrasting Socio-Economic Outcomes of Migrants and Their Children with Non-Migrants Back Home”. Presentation Multisite Migration Conference. Madrid ES, April 26, 2024.
- Next presentation: Cambridge Stratification Seminar, Stirling UK, August 27-28, 2025.

International Migration and Intergenerational Mobility

- Classical hypothesis in the social mobility literature: ***International migration increases intergenerational mobility:***
  - International migrants move up relative to their parents in the origin country (collective or structural mobility)
  - International migration interrupts intergenerational reproduction because parents do not migrate with their offspring and cannot transfer resources (individual or relative mobility)
  - Countries with higher levels of international migration are more open (= have more structural and relative mobility)
- See: Guveli, Ayse, Harry BG Ganzeboom, Lucinda Platt, Bernhard Nauck, Helen Baykara-Krumme, Şebnem Eroğlu, Sait Bayrakdar, Efe Kerem Sözeri, & Niels Spierings. 2016. *Intergenerational Consequences of Migration*. *Socio-economic, Family and Cultural Patterns of Stability and Change in Turkey and Europe.* Houndsmill, Basingstoke: Palgrave Macmillan UK.

International Migration and the OED model



Total association = Direct effect + indirect effect (in a linear model)

Research aims and research questions

- Aim: we examine intergenerational occupational class mobility of Latin-American migrants in Western-Europe compared to Latin-American in Latin-America
- Origins-of-migration design (Guveli et al., 2017): we compare migrants in the country-of-destination to non-migrants in the country-of-origin.

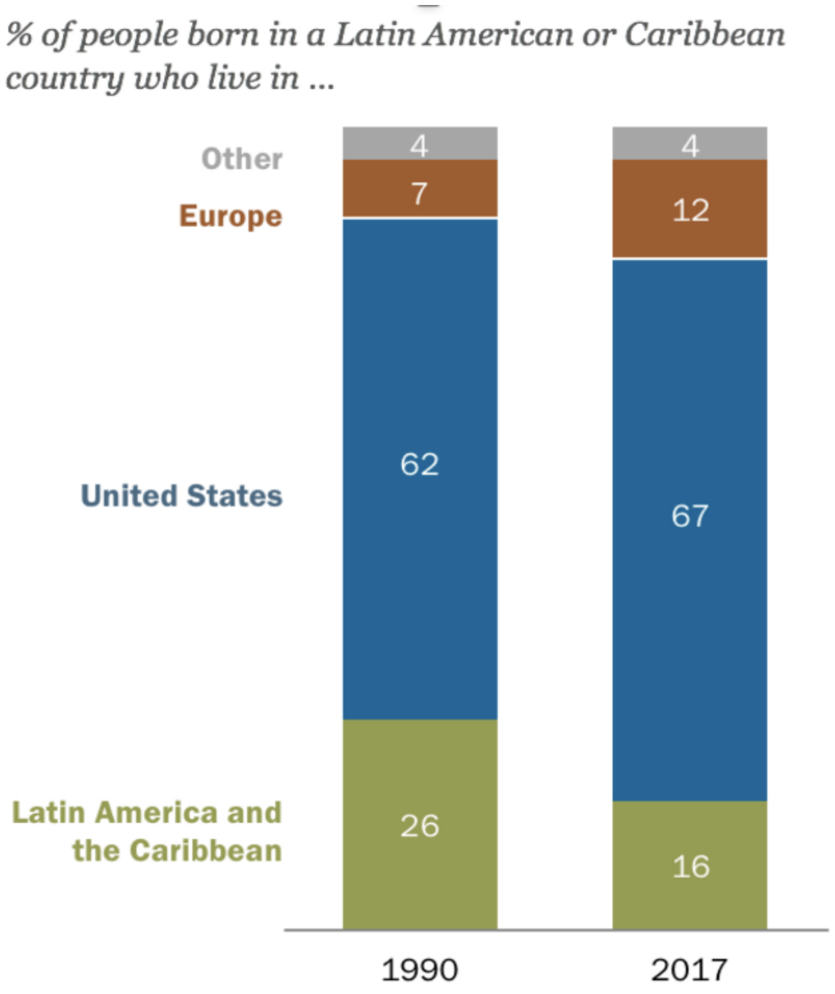
Conclusions

- (Bivariate) Association between father's and offspring's occupational class is considerably weaker for migrants western Europe.
- We separated this association into (on-diagonal) immobility and (off-diagonal) mobility using the Hauser-Goodman [HG] Quasi Scaled Uniform Association model.
- The scalings of (occupational class) origins are homogeneous between migrants and non-migrants, for both men and women.
- The scalings of destinations is heterogeneous between men and women, but not beween migrants and non-migrants. The difference between men and women mainly pertains to (1300) Managers of Small Firms.
- The effect of international migration is mainly restricted to on-diagonal immobility; the off-diagonal mobility association is hardly affected by international migration.

Latin Americans residing in the EU ~3.843.026

Eurostat (2011)

Latin Americans in Europe is a growing group



Pew Research Center: https://www.pewresearch.org/short-reads/2019/01/25/latin-america-caribbean-no-longer-worlds-fastest-growing-source-of-international-migrants/

Data: LATAM Migrants in Europe versus non-migrants in LATAM; data sources

- LATAM **Migrants** in Western Europe are 2670 respondents (men and women) in ESS (9 waves) and EVS (2 waves) whose origins are in 13 Latin-American countries and reside in 15 west-European countries.
- Origin is determined by country of birth of the migrants.

- LATAM **Non-Migrants** are respondents in 30 national sample surveys in these same 13 Latin-American countries, collected in the International Stratification and Mobility File (Ganzeboom & Treiman, 2019; http://www.harryganzeboom.nl/ISMF/index.htm),

DESTINATION COUNTRY	BR Brazil	52 South America	AR Argentina	SR Suriname	CO Colombia	PE Peru	EC Ecuador	CL Chile	VE Venezuela	BO Bolivia	MX Mexico	51 Caribbean	NI Nicaragua	Total
	ORIGIN COUNTRY													
ES Spain	49	77	107	0	120	81	147	28	69	70	14	0	4	766
NL Netherlands	15	34	3	300	12	6	2	5	11	0	2	0	1	391
PT Portugal	309	11	4	0	1	1	1	0	31	0	0	0	0	358
CH Switzerland	54	52	20	0	15	40	7	20	10	8	14	1	1	242
IL Israel	28	34	112	0	8	1	2	6	5	3	6	0	0	205
SE Sweden	8	34	4	0	14	12	3	61	4	8	6	2	0	156
IT Italy	20	8	18	0	1	16	6	1	5	1	1	0	0	77
FR France	11	17	10	0	6	7	2	7	1	0	5	0	0	66
DE Germany	21	9	9	0	5	4	0	5	3	1	5	0	0	62
IE Ireland	40	3	0	0	2	0	0	2	6	3	1	2	0	59
UK United Kingdom	9	32	2	0	4	0	0	2	1	0	1	8	0	59
BE Belgium	11	6	1	3	5	2	11	3	1	2	3	0	1	49
NO Norway	6	8	2	0	5	4	2	17	1	2	1	0	0	48
DK Denmark	8	7	6	0	3	3	0	5	3	2	3	0	0	40
AT Austria	16	1	3	0	3	6	0	4	0	0	1	0	0	34
	605	333	301	303	204	183	183	166	151	100	63	13	7	2612

Occupational classes: ISCAT

- ISCAT is an aggregated version of ISCO-08, mostly using major groups
- Adaptation of ISCO major groups:
  - Managers are separated into 1200 (Managers & Gov Officials) and 1300 (Managers of Small Firms)
  - Combine all agricultural work in 9200 (Farmers & Farm Labour).
  - ~~(Professionals are listed as 1000.)~~
- (ISCAT is similar to EGP, but easier to define, since it does not require auxiliary variables on self-employment and supervising status.)

Occupational Class Distributions of South-American Migrants and Non-Migrants

		NON-MIGRANTS			MIGRANTS		
		FATHERS	MEN	WOMEN	FATHERS	MEN	WOMEN
2000	Professionals	3.4%	5.6%	11.2%	15.1%	16.3%	18.1%
1200	Higher Management	2.6%	3.2%	1.9%	9.2%	5.9%	2.0%
1300	Small Proprietors	5.5%	5.0%	2.7%	5.4%	5.1%	3.1%
3000	Associate Professionals	3.3%	5.7%	6.6%	4.9%	12.2%	14.6%
4000	Clerical	3.6%	6.4%	11.8%	5.6%	7.1%	9.6%
5000	Service & Sales	9.0%	12.2%	25.3%	13.6%	15.0%	29.0%
7000	Skilled Manual	17.4%	21.9%	11.2%	16.7%	19.1%	2.1%
8000	Semi-Skilled Manual	10.5%	12.8%	6.1%	11.9%	6.6%	1.9%
9000	Elementary	9.5%	11.4%	16.7%	6.9%	10.6%	18.7%
9200	Agricultural	35.3%	15.8%	6.5%	10.7%	2.0%	.9%
Total (100%)		86814	63312	38578	2168	933	1331

MIGRANTS: Latin-Americans in Western Europe, MEN & WOMEN

INFLOW

		iscat										Total
		2000	1200	1300	3000	4000	5000	7000	8000	9000	9200	
fiscat	2000	27.2%	22.5%	13.9%	22.4%	11.6%	9.3%	10.4%	9.2%	4.2%	11.5%	14.6%
	1200	12.5%	16.9%	20.8%	9.9%	7.7%	8.6%	7.7%	3.9%	6.3%		9.4%
	1300	6.1%	7.0%	6.9%	4.2%	6.5%	3.7%	7.7%	5.3%	5.6%	3.8%	5.4%
	3000	6.1%	1.4%	1.4%	6.5%	7.1%	5.8%	2.2%	5.3%	3.9%		5.0%
	4000	7.5%	5.6%	6.9%	7.6%	7.7%	4.2%	3.3%	2.6%	5.3%	3.8%	5.7%
	5000	13.3%	16.9%	19.4%	12.5%	13.5%	12.7%	9.9%	11.8%	11.3%	15.4%	12.8%
	7000	14.5%	9.9%	8.3%	16.0%	16.1%	18.3%	19.8%	27.6%	17.3%	7.7%	16.6%
	8000	4.3%	7.0%	9.7%	11.8%	14.8%	15.7%	16.5%	17.1%	15.8%	7.7%	12.5%
	9000	3.8%	1.4%	5.6%	5.7%	9.0%	7.6%	7.7%	6.6%	9.5%	3.8%	6.7%
	9200	4.6%	11.3%	6.9%	3.4%	5.8%	14.1%	14.8%	10.5%	20.8%	46.2%	11.2%
Total (100%)		345	71	72	263	155	432	182	76	284	26	1906

NONMIGRANTS: Latin-Americans in Latin-America

% within iscat

		iscat										Total
		2000	1200	1300	3000	4000	5000	7000	8000	9000	9200	
fiscat	2000	16.2%	7.9%	3.6%	6.5%	4.9%	2.4%	1.4%	1.1%	.9%	.4%	3.3%
	1200	6.1%	12.2%	4.6%	4.6%	4.3%	1.7%	1.3%	1.5%	1.1%	.4%	2.5%
	1300	8.5%	13.7%	22.9%	8.5%	6.3%	4.1%	3.6%	4.0%	2.4%	3.4%	5.5%
	3000	7.3%	5.6%	2.7%	9.5%	5.6%	3.0%	2.0%	2.0%	1.7%	.4%	3.2%
	4000	8.0%	5.2%	2.4%	7.1%	9.4%	3.9%	2.1%	2.3%	1.9%	.3%	3.6%
	5000	10.5%	8.2%	4.9%	10.9%	12.5%	17.0%	7.3%	7.4%	7.9%	1.4%	8.9%
	7000	14.8%	16.0%	11.9%	18.6%	19.4%	17.3%	28.4%	18.7%	18.8%	3.2%	17.6%
	8000	9.6%	8.6%	4.6%	11.7%	13.7%	12.7%	10.0%	18.3%	10.8%	2.3%	10.5%
	9000	4.9%	4.0%	4.5%	7.3%	9.0%	10.0%	10.2%	10.1%	17.1%	4.4%	9.1%
	9200	14.1%	18.6%	37.8%	15.4%	15.0%	28.0%	33.6%	34.6%	37.3%	83.7%	35.7%
Total (100%)		5763	2144	3190	4661	5783	12164	13984	8127	9499	10132	75447

Descriptivesx

• % immobile:	Non-Migrants 27%	Migrants 15%
• % mobile	Non-Migrants 73%	Migrants 85%
• % downwardly mobile	Non-Migrants 21%	Migrants 35%
• % upwardly mobile	Non-Migrants 52%	Migrants 51%

- Pearson correlation (using homogeneous equal scalings, see below)

  Non-Migrants .427 Migrants .303

Goodman odds-ratio model (RC-II)

- Uniform Association: all contiguous odds-ratio's in a mobility table are equal: (Fij/Fij')/Fi'j/Fi'j) = U.
- Scaled Uniform Association model: (Fij/Fij')/Fi'j/Fi'j') = U*(Ui-Ui')*(Uj-Uj').
  - Ui and Uj are scale values that determine the likelihood of mobility vs immobility in any (sub)table of I*J.
  - Goodman's Row-and-Column II model estimates these scalings in such a way that it minimizes misfit (by LR or BIC tests) and maximizes U.
  - Goodman (1981): if Ui and Uj are Z-standardized and the mobility distribution is bivariate normal, ln(U) is equal to the pearson correlation.
- Mobility tables often display excess density on the diagonal (immobility) and this is different by class: highest density is typically found for farmers and (other) small proprietors.

  → Model must be enhanced with IMM (immobility) parameters.
- This is often called the Quasi Scaled Uniform Association [RC-II] model

Hauser-Goodman model

- Hauser (1984) was the first to propose that a comparison of the strength of association between two or more mobility tables can ben best studied using only two parameters to vary between tables:
  - Ut – measures the <u>strength</u> of the off-diagonal association (mobility), as <u>patterned</u> by the Ui and Uj scalings.
  - IMMt – measures the amount of excess density on the diagonal (immobility), as patterned by IMMk-parameters (‘class immobility’).
- The Hauser-Goodman model is sociologically very informative and statistically very powerful.
- Very informative:
  - Models both pattern and the strength of the mobility regime.
  - Separation of mobility and immobility (movers vs stayers).
  - Scale scores inform about mobility distances, which can be interpreted as social distances.
- Very powerful:
  - Only two parameters differ between tables.

The scale scores Ui and Uj

- Ui and Uj can be constrained in various sociologically interesting ways:
  - Ui = Uj: **equal scalings** between origins and destinations == identical hierarchies.
  - Ui(t1) = Ui(t2) and Uj(t1) = Uj(t2): **homogeneous scalings** between tables, implying that the occupational class hierarchies are identical between, say, men and women, or between migrants and non-migrants.
- For reasons of parsimony we would prefer equal and homogeneous scalings, but deviations are often well-interpretable and sociologically informative.

Origin scalings Ui

- Are origin scalings Ui identical (homogeneous) between:
  - Men and women?
  - Migrants and non-migrants?
- Important consideration: our migrants include 2nd generation migrants whose parents came to WEU at a fairly young age.
- Test statistics on origin scalings (all four tables):

	DF	LR	BIC
• Heterogeneous	243	1733.7	-1001.4
• Homogeneous	267	1772.4	-1232.9

Destination scalings Uj

- Are destinations scalings Uj identical (homogeneous) between:
  - Men and women?
  - Migrants and non-migrants?
- Test statistics on destinations scalings (assuming homogeneous origin scaling):

	DF	LR	BIC
Homogeneous equal destinations	299	2136.7	-1240.1
Heterogeneous MIG-nonMIG	284	2102.2	-1072.0
Heterogeneous Men-Women	**284**	**1867.1**	**-1307.1**
Homogeneous four tables	291	**1912.6**	**-1362.9**

SCALINGS

focc		N-ORI	N-MEN	N-WOMEN	ORIGIN	MEN	WOMEN
2000	PROFESSIONALS	2802	2972	3136	2.473	2.200	1.816
1100	MANAGERS LARGE	2056	1673	542	2.027	1.692	1.700
1300	MANAGERS SMALL	4277	2610	652	0.801	-0.521	0.802
3000	ASS PROFS	2496	2918	2006	1.990	1.577	1.476
4000	CLERKS	2804	2936	3002	1.772	1.197	1.310
5000	SERVICE-SALES	6986	5900	6695	0.638	0.146	-0.279
7000	SKILLED MANUAL	13592	10745	3418	0.027	-0.605	-1.006
8000	SEMISKILLED	8155	6342	1861	0.069	-0.586	-0.926
9000	ELEMENTARY	7026	5209	4574	-0.478	-1.050	-1.087
9200	FARM	27154	8125	2032	-0.975	-0.377	-0.132
Total		77348	49430	27918			

Results - scalings

- Origin scaling are homogeneous (same non-migrant / migrants; men and women).
- Destination scaling are heterogeneous
  - Different between men and women: main difference is in scaling of 1300 (Small Managers).
  - Same for non-migrants and migrants
- Scalings differ between origins and destinations for Farm (9200)

Results – Association separated in U and IMM (Four models refer to heterogeneity of scalings)

- Off-diagonal association (U) is somewhat lower for Migrants than for non-Migrants; not different between Men and Women

U = 0.332 - .074*Migrant + .013*Female

U = 0.303 - .062*Migrant + .004*Female

U = 0.299 - .059*Migrant - .006*Female

U = 0.306 - .064*Migrant + .001*Female

- On-diagonal association (IMM) is much lower for Migrants than non-Migrants; somewhat lower for Women than for Men:

IMM = IMMk - .513*Migrant - .159*Female

IMM = IMMk - .527*Migrant - .151*Female

IMM = IMMk - .502*Migrant - .144*Female

IMM = IMMk - .520*Migrant - .153*Female

Conclusions

- (repeated from earlier slide)

Possible extensions

- More detailed classification, in particular for the manual categories
- EGP instead of ISCAT
- Also compare to WEU natives
- Make the model multivariate using Conditional Multinomial Logistic Regression, to introduce:
    - Education
    - Age and life-course variables
    - Generation of migration
    - Origin-Country fixed effects.

Literature

- Guveli, Ayse, Harry BG Ganzeboom, Lucinda Platt, Bernhard Nauck, Helen Baykara-Krumme, Şebnem Eroğlu, Sait Bayrakdar, Efe Kerem Sözeri, & Niels Spierings. 2016. *Intergenerational Consequences of Migration*. *Socio-economic, Family and Cultural Patterns of Stability and Change in Turkey and Europe.* Houndsmill, Basingstoke: Palgrave Macmillan UK.
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- Hauser, Robert M. 1984. “Vertical Class Mobility in England, France, and Sweden.” *Acta Sociologica* 27 (2): 87–110. https://doi.org/10.1177/000169938402700201.

Additional slides

How we estimate the HG model

- Scale scores are estimated in LEM
- Estimated scores are then used in SPSS GENLOG as fixed scores.
- Before entering the scores in GENLOG, they are Z-standardized. This make the estimated ln(U) similar to a pearson correlation.
- Motivation:
  - Scale scores are not very sensitive to other components of the model.
  - GENLOG is very fast and parametrization is easy to understand.
  - Good preparation for the next step: making the analysis multivariatie using CMLR.
- BIC statistic calculated a LR – df*LN(N), in which df as reported by SPSS are corrected for the number of scale parameter estimated in LEM.

Making the HG model multivariate

Making the HG model multivariate using CMLR

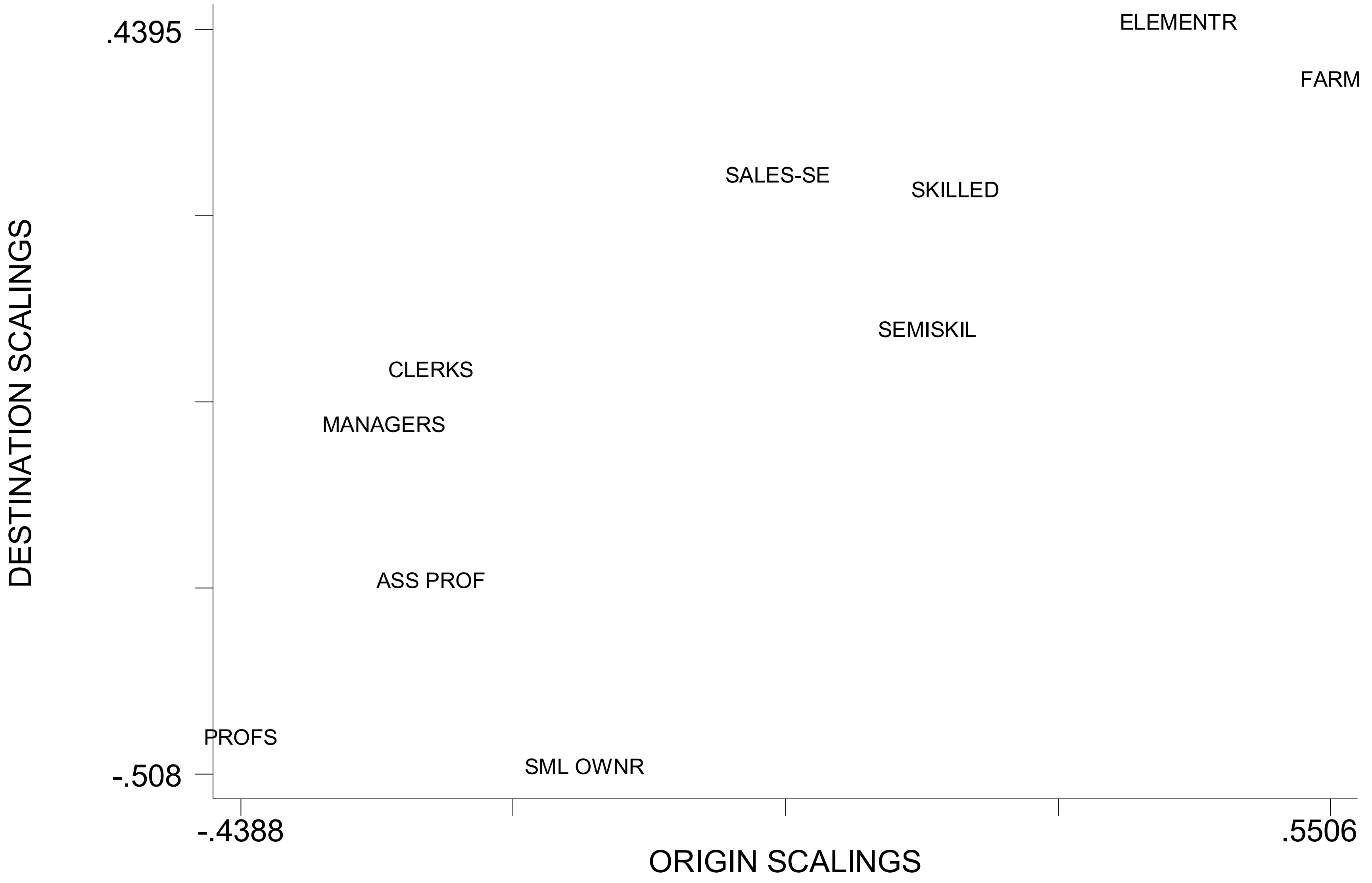
- Even with multiple mobility tables and multiple parameters, the HG model remains bivariate. The only way to bring in more variables than FOCC and OCC is by conditioning (making subtables).
- This strategy soon runs out of steam because of the 'empty cells' problem: many cells in the multidimensional distribution are empty and have very low expected frequencies.
- The solution to thisproblem has been proposed and articulated many years ago, (but stratificationists have tended to neglect it): the Conditional Multinomial Logistic Regression model, which can be estimated on individual data.
- CMLR makes it possible to examine the mediating role of education and adjust models for data quality or country-fixed effects indicators.

CMLR

- See Dessens et al. (2003) on how to do it. Here is a short summary.
- A CMLR data set is structured by the number of categories of the dependent variable (OCC), labeled CHOICES.
- Define a 0/1 variable CHOSEN that indicates the actual category of the dependent variable.
- Repeat all the individual information for all the choices.
- Define IMM as 0/1 when FOCC = CHOICES.
- Define U as the distance between the scaling of FOCC and the scaling of CHOICES.
- Analyze CHOSEN, conditional (grouped) on CHOICES, and relate to the predictor variables.

Structural and relative (occupational) mobility

- We seek to distinguish:
  - Structural or collective mobility, i.e. moves associated with the difference in occupational distribution between origins (parents) and destinations (offspring).
  - Relative or individual mobility, i.e. the association between origin and destination occupations.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DESTINATION SCALINGS
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