Intergenerational Income Mobility in France: A Comparative and Geographic Analysis

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What is the relationship between the income of parents and the income of their children?

Why do we care?

Equity

 $\rightarrow\,$ Do we live in a society that affords the same opportunities regardless of socio-economic background?

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Policy

 $\rightarrow\,$ What can the government do to reduce the transmission of inequality across generations?

What do we know?

Many studies on developed countries:

Acciari et al. (forthcoming); Bratberg et al. (2017); Chetty et al. (2014); Corak (2020); Helsø (2021); Mazumder and Deutscher (forthcoming) ...

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But very few France:

- Only 1 national estimate
- On father-child earnings only
- Using self-reported earnings
- From small-sample surveys

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Even though interesting case study:

- $ightarrow\,$ Relatively modest inequality
- $ightarrow\,$ Relatively inexpensive higher education

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Contributions

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- 2. Investigate the **spatial variations** of intergenerational mobility
- 3. Describe the relationship between **intergenerational** and **geographic mobility**

Sampling rule: Follows individuals born on the first 4 days of October

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- Population census (1990)
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- Annual Declarations of Social Data (1967-2015)
 → Parents wage (prediction sample)



EDP individual















Variable Definitions

Parent household wage:

Average predicted pretax wage for father and/or mother (age 35-45)

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Percentile ranks:

Child: Child percentile rank in the income distribution of his birth cohort

Parents: Parent percentile income rank relative to other parents with children in the same birth cohort

National results: Rank-rank relationship



National results: Transition matrix



International comparison

Switzerland			0 14	0		
Chuard-Keller and Grassi (2021)			0.14	0		
Spain	0 195					
Soria Espin (2022)				0.100		
Sweden	0.197					
Denmark	_		_			
Helsa (2021)				0.203	3	
Australia					-	
Deutscher and Mazumder (2020)				0.21	5	
Sweden				0.21	6	
Bratberg et al. (2017)				0.21	5	
Norway				0.2	23	
Bratberg et al. (2017)				0.2		
Canada				0.	242	
Corak (2020)	_					
Bratherg et al. (2017)				0.	245	
Denmark	-					
Landersø and Heckman (2017)				0	.253	
Denmark					067	,
Eriksen (2018)				L L	1.251	
Italy		1			0	300
Acciari, Polo and Violante (2022)					0.	500
France						0.337
own calculations	_					
Chatty at al. (2014)						0.341
United States		_	_	-		
Bratberg et al. (2017)						0.395
0	0	01	0.2	2	0.3	0.4

Rank-Rank Correlation

International comparison

Switzerland			0.140			
Chuard–Keller and Grassi (2021)	0.140					
Spain			0.4	105		
Soria Espin (2022)			0.	195		
Sweden			0	107		
Heidrich (2017)			0.	197		
Denmark			0	203		
Helsø (2021)			0.	205		
Australia			0	215		
Deutscher and Mazumder (2020)				.215		
Sweden			0	215		
Bratberg et al. (2017)				.215		
Norway				0.223		
Bratberg et al. (2017)				0.225		
Canada				0.242		
Corak (2020)				0.242		
Germany				0.245		
Bratberg et al. (2017)				0.240		
Denmark				0 253		
Landersø and Heckman (2017)				0.200		
Denmark				0 257	7	
Eriksen (2018)				0.2.57		
Italy				0	300	
Acciari, Polo and Violante (2022)				0.		
France					0.337	
own calculations	_		_	_	0.001	
United States					0.341	
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0	0	0.1	0.2	0.3	0.4	

Rank-Rank Correlation

P(Top 20% | Bot. 20%)



Department assignment:

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Absolute upward mobility:

$$p_{c,d} = \alpha_d + \mathsf{RRC}_d p_{p,d} + \varepsilon_d$$

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Absolute upward mobility:

$$p_{c,d} = \alpha_d + \mathsf{RRC}_d p_{p,d} + \varepsilon_d \qquad \qquad \mathsf{AUM}_d \equiv \mathbb{E}[p_{c,d} \mid p_{p,d} = 25]$$
$$\equiv \hat{\alpha_d} + 25 \times \widehat{\mathsf{RRC}_d}$$

CEF of the Nord department



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Spatial variations: Results

RRC



0.203 - 0.233 0.236 - 0.269 0.271 - 0.288 0.289 - 0.305 0.305 - 0.32 0.324 - 0.343 0.343 - 0.377 0.378 - 0.437 Insufficient data





Intergenerational & Geographic Mobility



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Two questions:

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At the aggregate level?

- ightarrow Do movers climb up the destination-department income ladder?
- $\rightarrow~$ Or do they reach the same local rank in a higher-income department?

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At the aggregate level?

- ightarrow Do movers climb up the destination-department income ladder?
- $ightarrow\,$ Or do they reach the same local rank in a higher-income department?

At the individual level?

- ightarrow How do the E(gains) differ depending on the destination income level?
- $\rightarrow\,$ How do these differences vary along the parent income distribution?



Expected mobility gains



Dest. - Origin income level



Expected mobility gains



Dest. - Origin income level



ightarrow Monotonically decreasing

 \rightarrow J-shaped

Expected mobility gains



- ightarrow Monotonically decreasing
- \rightarrow Small

Dest. - Origin income level



- ightarrow J-shaped
- ightarrow Twice smaller

Expected mobility gains



Dest. - Origin income level



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ightarrow It's not just about moving to higher-income departments

Mobility towards richer departments: Individual level



Mobility towards richer departments: Individual level



Mobility towards richer departments: Individual level



Conclusion

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- 1. France exhibits **strong persistence** in income across generations relative to other developed countries
- 2. **Spatial variations** between departments of the same magnitude as observed **between countries**
- 3. **Significant differences** in conditional expected income ranks between geographic movers and stayers
 - Decreasing in parent income
 - Increasing in destination-department income level

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Set of predictors (back)

Category	Variable	Description
	Age in 1990	Captures secular trend despite DADS parents only being born in even years.
Individual	Professional Category	42-category professional category
	Education	8-category highest diploma obtained
	Family type	6-category classification according to single parenthood and labor market activity
	Birth country	France, South Europe, Other Europe, Maghreb, Rest of Africa, Rest of the World
	Nationality	Dummy for being French at birth
	Population	Log of population
Municipality (For national estimates only)	Density	Log of population density
	%Unemployed	Unemployment rate
	%Foreigners	Share of non-French individuals
	%Single mothers	Share of single mothers