

Economic Mobility in Latin America

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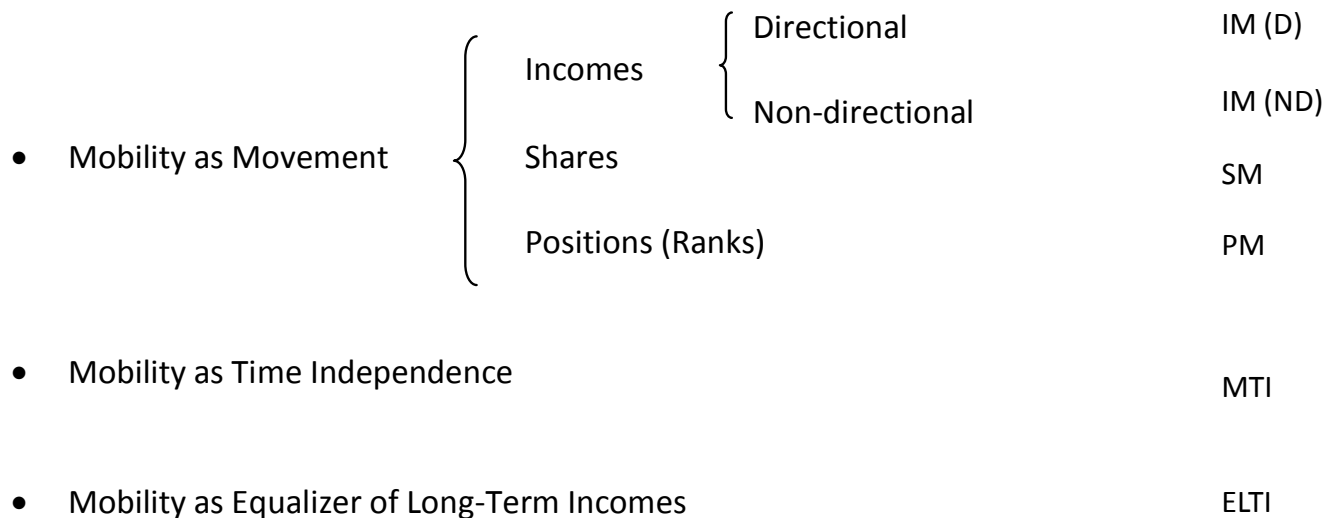
Outline

1. Concepts of economic mobility
2. Intergenerational mobility
 - Educational attainment and achievement
 - Relationship with inequality of opportunity
3. Intragenerational mobility
 - A 'matrix' decomposition
 - Application to actual and pseudo panels
4. Concluding remarks

1. Concepts of economic mobility

- Sociological and economic approaches to mobility.
- **Economic approach:** studies the transformation of an initial income vector into one or more subsequent vectors, while keeping track of the identity of recipient units.
- Within the economic approach, **three broad conceptions** of mobility*:

Figure 3: Mobility Concepts



* Drawing on a taxonomy by Fields (2001)

1. Concepts of economic mobility

These six concepts do capture very different aspects of 'mobility':

Examples:

High

No

(1, 10, 100) → (2, 20, 200)

IM (D & ND)

SM, PM, MTI, ELTI

(1, 10, 100) → (100, 10, 1)

IM (ND), PM, SM, ELTI

IM (D), MTI

(1, 10, 100) → (36, 37, 38)

IM (ND), SM, ELTI

IM (D), PM

The tension between the origin independence and rank reversal axioms goes back to Shorrocks (1978)

Perfect immobility

The final position is the exact same as in the final period

		y_t		
		Bottom	Middle	Top
y_{t-1}	Bottom	1	0	0
	Middle	0	1	0
	Top	0	0	1

Origin independence

The starting position does not determine the final one

		y_t		
		Bottom	Middle	Top
y_{t-1}	Bottom	0.3	0.5	0.2
	Middle	0.3	0.5	0.2
	Top	0.3	0.5	0.2

Rank reversal

The position in the distribution is reversed

		y_t		
		Bottom	Middle	Top
y_{t-1}	Bottom	0	0	1
	Middle	0	1	0
	Top	1	0	0

1. Concepts of economic mobility

- These multiple ways of summarizing the information contained in the transition from one income vector to another when identities are preserved mirror the myriad measures of poverty and inequality.
 - Changes in poverty and inequality also summarize transitions from one vector to another, but with anonymity.
- Changes in some (anonymous) measures of poverty and inequality are ultimately simply different ways of aggregating the information contained in the *growth incidence curve*...

E.g. for the class of poverty measures that can be written as $P_t = \int_{-\infty}^{F(z)} \pi(y_t(p), z) dp$

$$dP_t = \int_{-\infty}^{F(z)} \eta_t(p) g_t(p) dp + \pi(z, z) dF_t(z)$$

1. Concepts of economic mobility

- For inequality measures – like the Gini coefficient, or the G.E. class – that can be written as:

$$I_t = G \left[\int_0^1 h \left(\frac{y_t(p)}{\mu} \right) dp \right]$$

- We have
$$dI_t = G' \left(\int_0^1 h' \left(\frac{y_t(p)}{\mu} \right) \frac{\mu}{y_t(p)} \left[g_t(p) - \frac{d\mu}{\mu} \right] dp \right)$$

- Can different (non-anonymous) measures of mobility also be expressed as aggregating information in some function, analogous to the GIC?

– Answer: ‘*mobility profiles*’ (van Kerm, 2006, 2009).

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1. Concepts of economic mobility

- For (all five sub-concepts within) the first two broad conceptions of mobility – **movement and origin independence** – the problem of measuring the overall extent of mobility in a society can be decomposed into two steps, in this order:*

1. Definition of an individual mobility function

$$m(p_0) = d(y_0(p_0), y_1(p_0))$$

2. Aggregation across individuals: Social mobility function

$$M(Y_0, Y_1) = \int_0^1 m(p_0) dp_0 = \int_0^1 d(y_0(p_0), y_1(p_0)) dp_0$$

*See van Kerm (2006, 2009)

1. Concepts of economic mobility

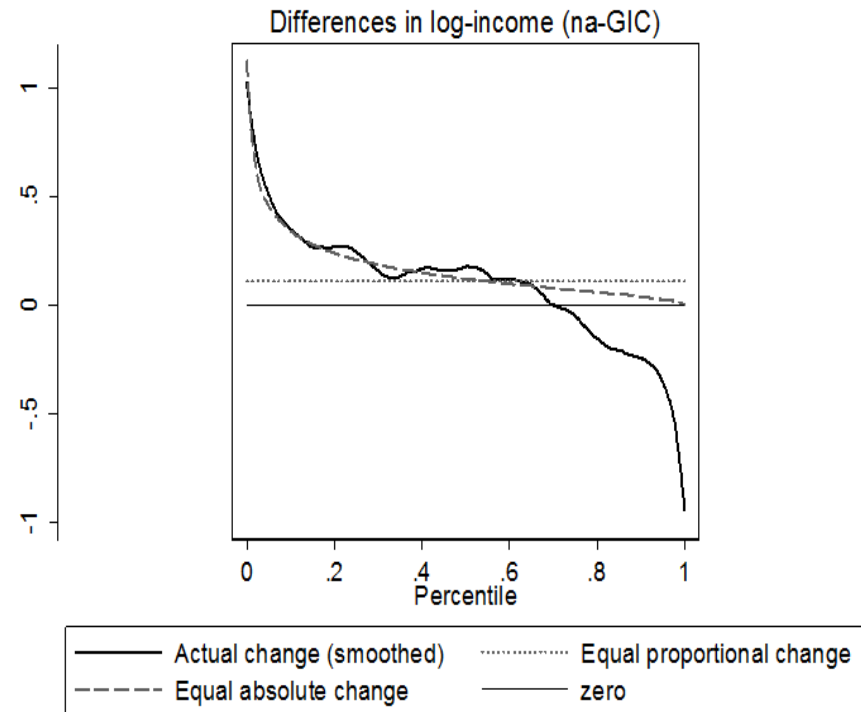
- For example, if we take a proportional view of directional income movement

$$d(y_0, y_1) = \frac{y_1 - y_0}{y_0}$$

- Then the aggregate mobility measure is given by:*

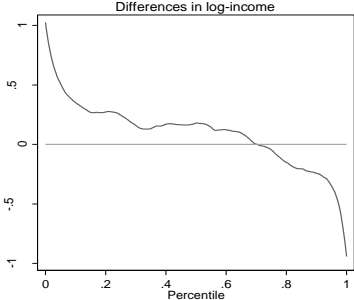
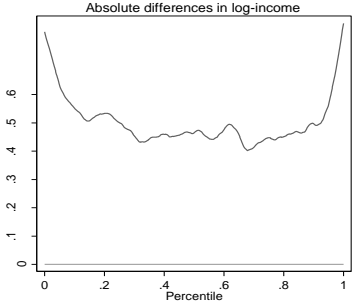
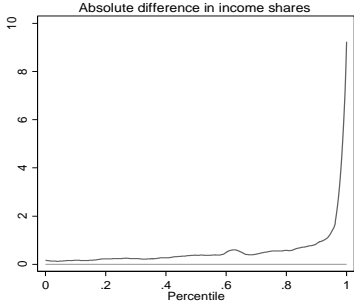
$$M(Y_0, Y_1) = \int_0^1 \frac{y_1(p_0) - y_0(p_0)}{y_0(p_0)} dp_0 = \int_0^1 g(p_0) dp_0$$

- Which is the integral of the na-GIC along initial ranks.

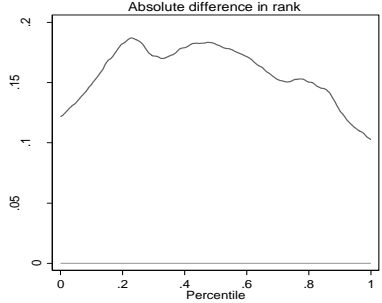
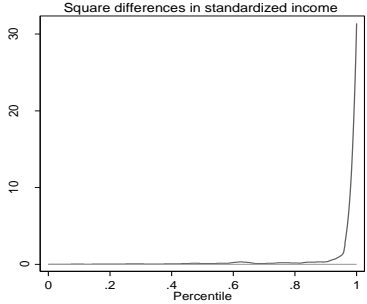


* The log-approximation of this measure is the M^3 measure in Fields and Ok (1999) and Fields et al. (2002).

1. Concepts of economic mobility

Concept	$m(p_0)$ - example	Profile (Peru, 2004-2006)
Directional income movement	$d(y_0, y_1) = y_1 - y_0$ $d(y_0, y_1) = \frac{y_1 - y_0}{y_0}$	
Non-directional income movement	$d(y_0, y_1) = y_1 - y_0 $ $d(y_0, y_1) = \left \frac{y_1 - y_0}{y_0} \right \approx \log y_1 - \log y_0 $	
Share movement	$d(y_0, y_1) = \left \frac{y_1}{\mu_1} - \frac{y_0}{\mu_0} \right $	

1. Concepts of economic mobility

Concept	$m(p_0)$ - example	Profile (Peru, 2004-2006)
Positional movement	$d(y_0, y_1) = \text{rank}_1 - \text{rank}_0 $	
Mobility as origin (or time) independence	$d(y_0, y_1) = \frac{1}{2} \left(\frac{y_0 - \mu_0}{s_0} - \frac{y_1 - \mu_1}{s_1} \right)^2$ $M(Y_0, Y_1) = 1 - \rho_{y_0 y_1}$ <p>(D'Agostino and Dardanoni, 2006)</p>	
Mobility as an equalizer of long-term incomes	Is not an aggregate of individual mobility functions.	$1 - \frac{I(y_0 + y_1)}{I(y_0)}$

1. Concepts of economic mobility

- Pick one per domain:

Concept \ Domain	Intra-generational	Inter-generational
Directional Income Movement	<ul style="list-style-type: none">- Growth in individual or household incomes , and well-being.-Movements in and out of poverty, and the middle class.	<ul style="list-style-type: none">- 'Abolute' progress between generations: how much better off are the children than the parents?
Mobility as origin (or time) independence	<ul style="list-style-type: none">- Long-term life-cycle movements: life time achievements independent of initial conditions.	<ul style="list-style-type: none">-Equal opportunities: Children's achievements independent of parent's circumstances.

- **Empirical Challenge:** Scarcity of panel data for intra-generational mobility, and of systematic information on the parents of today's adults.

2. Intergenerational mobility

- The concept of interest is **mobility as origin independence**.
- Take the mobility profile given by the square of the difference between standardized incomes:

$$d(y_0, y_1) = \frac{1}{2} \left(\frac{y_0 - \mu_0}{s_0} - \frac{y_1 - \mu_1}{s_1} \right)^2$$

- The corresponding social mobility function is $M(Y_0, Y_1) = 1 - \rho_{y_0 y_1}$
- Which is the complement to the square root of the R^2 in the old Galtonian regression:

$$y_t = \beta y_{t-1} + \varepsilon_t$$

$$R^2 = \frac{\text{Var}(\beta y_{t-1})}{\text{Var}(y_t)} = \frac{\text{Cov}^2(y_{t-1}, y_t)}{\text{Var}(y_t)\text{Var}(y_{t-1})} = \rho_{t, t-1}^2$$

2. Intergenerational mobility

- A distinguished international literature has examined these correlations in long-term panels with information on earnings for parents and (typically) sons:
 - Björklund and Jäntti (*AER*, 1997) : US and Sweden
 - Couch and Dunn (*JHR*, 1997): US and Germany
 - Dearden, Machin and Reed (*EJ*, 1997): UK
 - Solon (*JEP*, 2002): cross country
 - Mazumder (*REStat*, 2005): US
- In LAC, studies have either relied on education, or on TSIV:
 - Behrman, Gaviria and Székely (*Economía*, 2001)
 - Gaviria (*Economía*, 2007)
 - S. Ferreira and Veloso (*PPE*, 2003; *BRE* 2006)

2. Intergenerational mobility

- So, what do we know about LAC's relative performance in terms of intergenerational mobility?
 - In incomes: very little!
 - In education: attainment vs. achievement
 - Parallels to the inequality of opportunity literature

2. Intergenerational mobility

The correlation coefficient has also been used to measure mobility in educational attainment

The correlation between years of schooling of parents and children

Source: Hertz et al. (2007)

Country	Coefficient	Rank	Correlation	Rank
Peru	0.88	6	0.66	1
Ecuador	0.72	12	0.61	2
Panama	0.73	11	0.61	3
Chile	0.64	18	0.60	4
Brazil	0.95	4	0.59	5
Colombia	0.80	8	0.59	6
Nicaragua	0.82	7	0.55	7
Indonesia	0.78	9	0.55	8
Italy†	0.67	17	0.54	9
Slovenia†	0.54	27	0.52	10
Egypt	1.03	2	0.50	11
Hungary†	0.61	20	0.49	12
Sri Lanka	0.61	19	0.48	13
Pakistan	1.00	3	0.46	14
USA	0.46	33	0.46	15
Switzerland†	0.49	30	0.46	16
Ireland†	0.70	15	0.46	17
South Africa (KwaZulu-Natal)	0.69	16	0.44	18
Poland†	0.48	31	0.43	19
Vietnam	0.58	23	0.40	20
Philippines	0.41	36	0.40	21
Belgium (Flanders)	0.41	35	0.40	22
Estonia	0.54	28	0.40	23
Sweden	0.58	26	0.40	24
Ghana	0.71	13	0.39	25
Ukraine	0.37	40	0.39	26
East Timor	1.27	1	0.39	27
Bangladesh (Matlab)	0.58	25	0.38	28
Slovakia	0.61	21	0.37	29
Czech Republic†	0.44	34	0.37	30
The Netherlands	0.58	24	0.36	31
Norway	0.40	38	0.35	32
Nepal	0.94	5	0.35	33
New Zealand†	0.40	37	0.33	34
Finland	0.48	32	0.33	35

2. Intergenerational mobility

- In the context of educational **achievement**, y_{t-1} is generally unobserved. But a vector of family background characteristics, \mathbf{z} , is observed.

$$y_t = \mathbf{z}_t' \boldsymbol{\beta} + \eta_t$$

- Interestingly, the R^2 of this regression:

$$\theta = \frac{\text{Var}(\mathbf{z}_t' \hat{\boldsymbol{\beta}})}{\text{Var}(y_t)}$$

- corresponds (exactly) to a measure of inequality of opportunity in educational achievement, and is isomorphic to the measure applied to incomes or earnings.

2. Intergenerational mobility

1. Building on Roemer (1993, 1998) and van de Gaer (1993), define inequality of opportunity as the share of observed inequality that is due to differences in pre-determined circumstances, rather than individual efforts.
2. Let the vector z of circumstances define a partition of the population:

$$\Pi = \{T_1, T_2, \dots, T_K\} \quad \text{s.t.} \quad z_i = z_j, \forall i, j | i \in T_k, j \in T_k, \forall k.$$

3. The ex-ante approach to inequality of opportunity (Checchi & Peragine, 2010; Ferreira and Gignoux, forthcoming) measures it as inequality between types:

$$\theta_r = \frac{I(\{\mu_i^k\})}{I(y)}$$

where $\{\mu_i^k\}$ denotes the smoothed distribution given by y and Π . (Foster and Shneyerov, 2000)

2. Intergenerational mobility

1. A parametric approximation to that measure estimates a reduced-form regression of outcomes on circumstances

$$y_t = z_t' \beta + \eta_t$$

2. From

$$y = f(z, E, u)$$

$$E = g(z, v)$$

3. The parametric estimate of the ex-ante measure of I. Op. is then given by

$$\theta_r^P = \frac{I(\tilde{\mu}_i)}{I(y)}$$

4. where

$$\tilde{\mu}_i = z_i \hat{\beta}$$

2. Intergenerational mobility

- Ferreira and Gignoux (2011) apply this measure of Inequality of Opportunity:

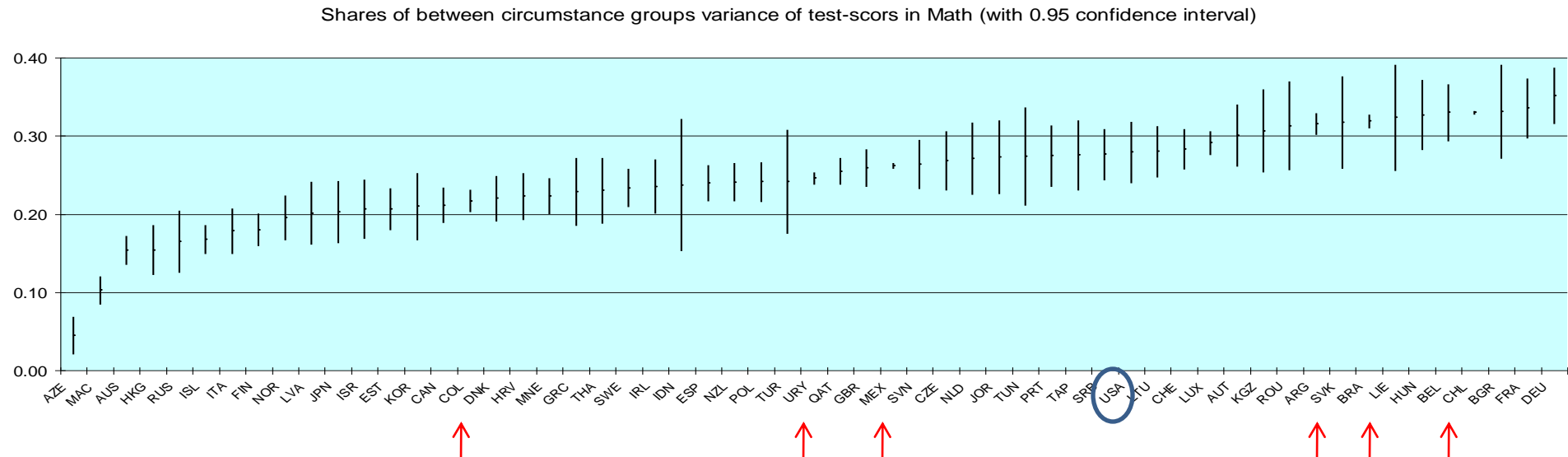
$$\theta = \frac{\text{Var}(z_t' \hat{\beta})}{\text{Var}(y_t)}$$

to the distribution of PISA test scores in mathematics, reading and science for all 57 countries included in the PISA 2006 survey round.

- The measure is closely analogous to an inverse measure of intergenerational mobility
- Vector z includes: gender, father's education, mother's education, father's occupation, language spoken at home, migration status, access to books at home, durables owned, cultural items owned, and school location.

2. Intergenerational mobility

Figure 2: Intergenerational Persistence of Inequality: countries ranked by share of variance explained by background factors.



Range (exc. Azerbaijan): 10.2% to 35.1%

Source: Ferreira and Gignoux (2011)

2. Intergenerational mobility

$$\hat{\theta}_{IOP} = \sum_j \hat{\theta}^j = \sum_j (\text{var } y)^{-1} \left[\beta_j^2 \text{var } C_j + \frac{1}{2} \sum_k \beta_k \beta_j \text{cov}(C_k, C_j) \right]$$

Table 5: Partial shares of the total variance in mathematics scores: decomposing IPI into individual components

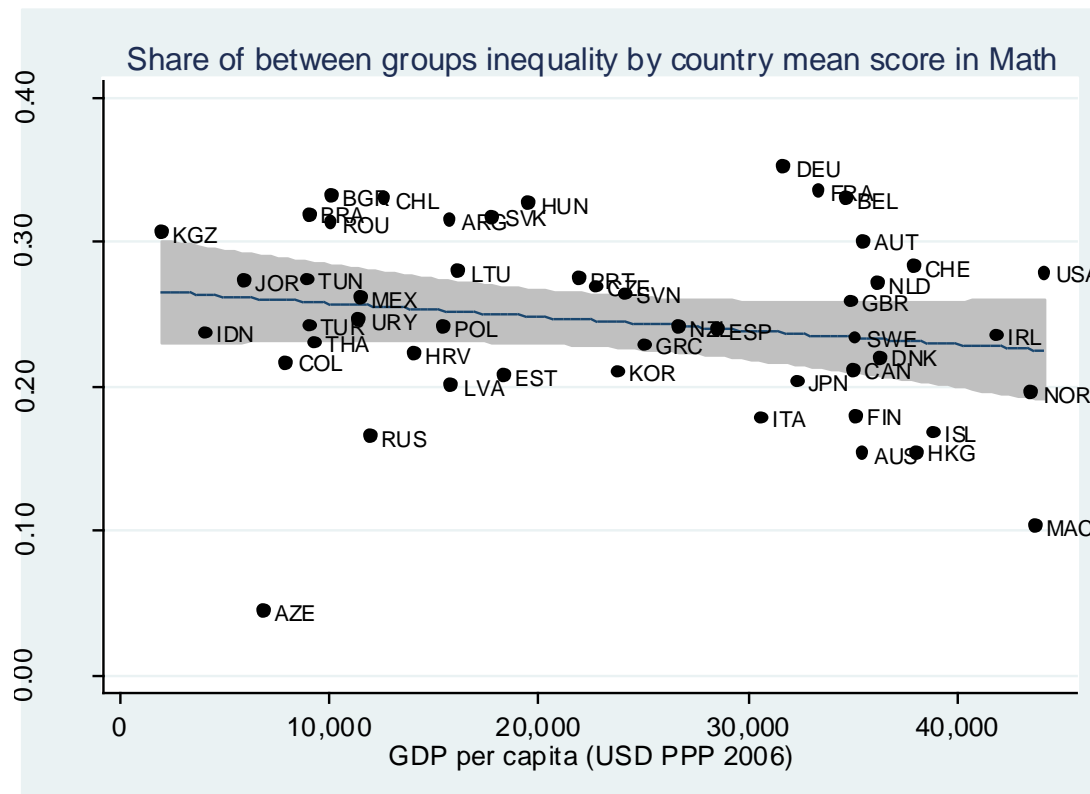
	Total	Gender	Father's education	Mother's education	Father's occupation	Area type	Language at home	Immigration status	Number of books	Durables	Cultural possessions
<i>Latin America</i>											
Argentina	0.315	0.004	0.014	0.026	0.024	0.022	0.000	0.003	0.079	0.114	0.029
Brazil	0.318	0.009	0.019	0.024	0.027	0.014	0.005	0.001	0.025	0.184	0.011
Chile	0.330	0.021	0.016	0.055	0.050	0.026	0.001	0.000	0.068	0.060	0.033
Colombia	0.216	0.017	0.009	0.015	0.014	0.014	0.003	0.000	0.049	0.085	0.010
Mexico	0.261	0.003	0.001	0.025	0.018	0.074	0.014	0.002	0.033	0.077	0.014
Uruguay	0.245	0.005	0.013	0.047	0.029	0.006	0.000	0.000	0.056	0.059	0.030
<i>North America & Oceania</i>											
Australia	0.153	0.008	0.007	0.009	0.044	0.002	0.000	0.000	0.055	0.011	0.016
Canada	0.211	0.008	0.029	0.011	0.035	0.017	0.003	0.000	0.078	0.013	0.018
New Zealand	0.241	0.005	0.036	0.016	0.036	0.003	0.000	0.000	0.074	0.034	0.037
United States	0.279	0.004	0.014	0.018	0.062	0.013	0.000	0.003	0.122	0.036	0.010

Source: Ferreira and Gignoux (2011)

2. Intergenerational mobility

When outliers are excluded, there is a weak negative correlation between I.Op. and GDP per capita, significant at the 10% level.

Figure 5: Intergenerational transmission of educational inequality and GDP per capita.

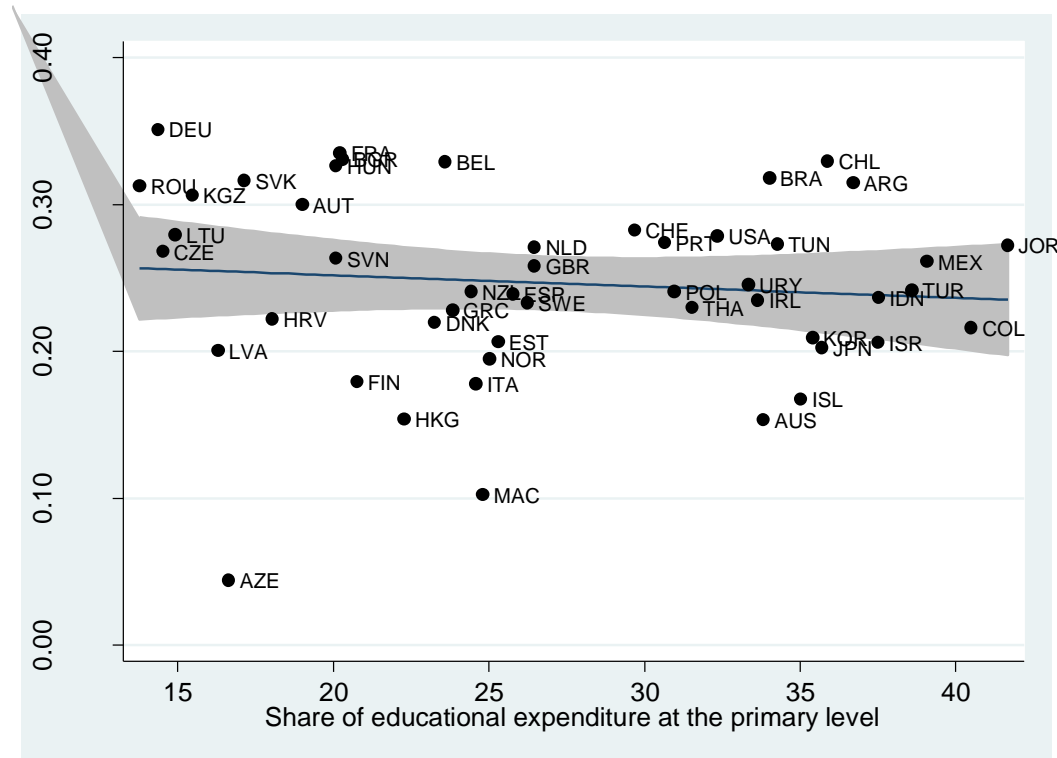


Source: Ferreira and Gignoux (2011)

2. Intergenerational mobility

There is also a negative association between I. Op. and the share of public educational spending allocated to primary schooling. (This is weakest for Math.)

Figure 6: Inequality of educational opportunity and public expenditure at the primary level

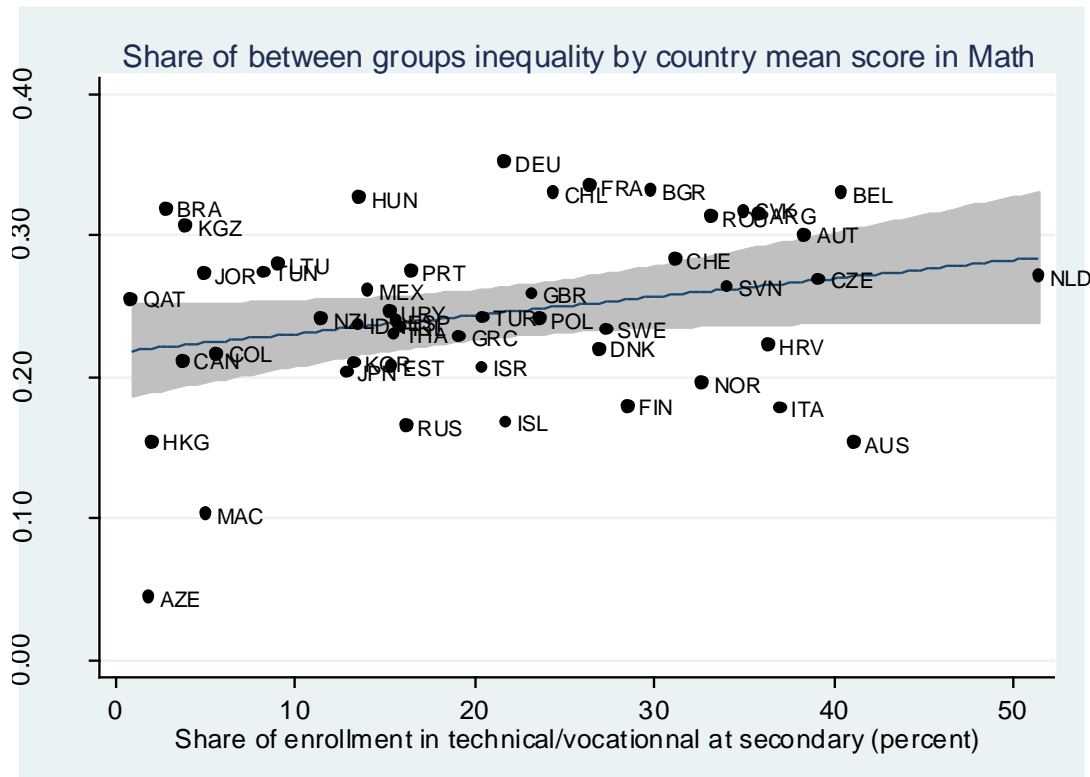


Source: Ferreira and Gignoux (2011)

2. Intergenerational mobility

I. Op. is consistently and significantly positively associated with tracking, measured as the share of technical and vocational enrollment in secondary schools.

Figure 7: Intergenerational transmission of educational inequality and tracking.

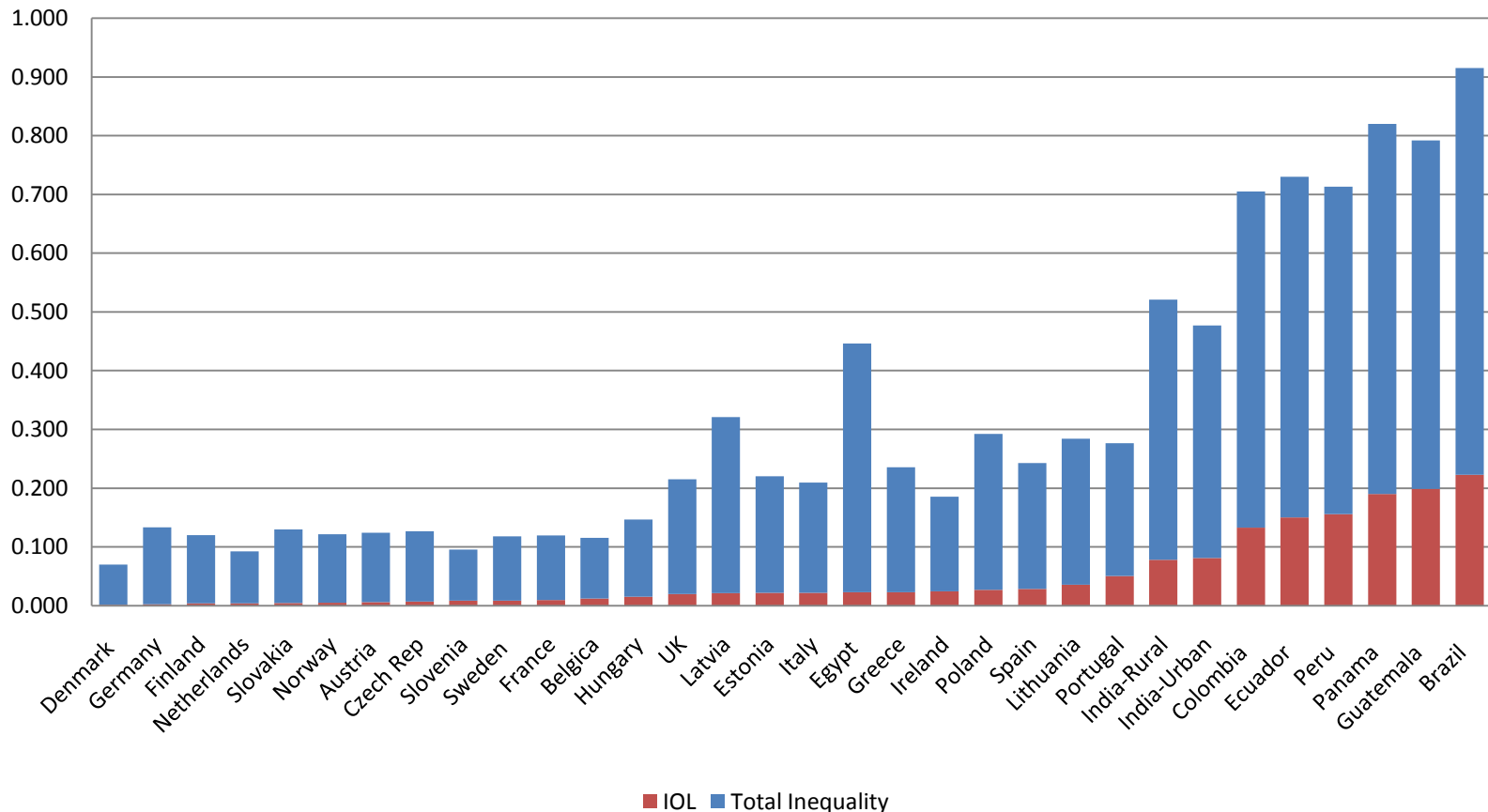


Source: Ferreira and Gignoux (2011)

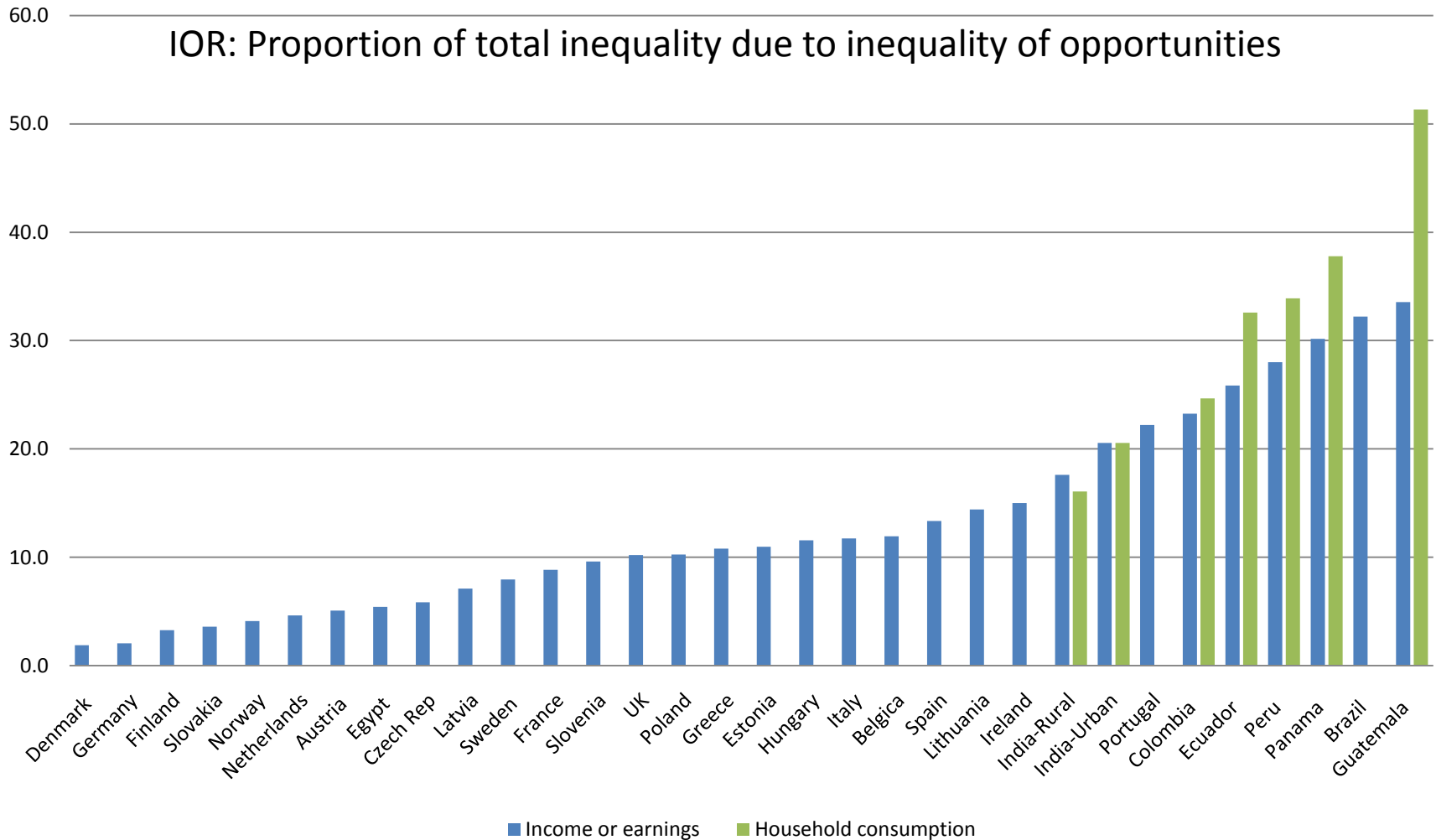
2. Intergenerational mobility

- When $\theta_r^p = \frac{I(\tilde{\mu}_i)}{I(y)}$ is calculated for income (or consumption) distributions, LAC looks even more comparatively unequal (or immobile).

Total inequality (G0) and inequality of opportunities (levels) in incomes/earnings
(ordered according to IOL)



2. Intergenerational mobility



Note: Estimates come from different studies and are not strictly comparable.

Sources: Ferreira & Gignoux (RIW ftc), Marrero & Rodrigues (2011), RIW India paper, Hassine (WBER, ftc).

3. Intragenerational mobility

- Despite the paucity of longer panels, there is a large(ish) literature on mobility in LAC. Examples:
 - Actual panels:
 - Scott (2000)
 - Beccaria and Groisman (2006)
 - Contreras et al. (2006)
 - Fields, Duval, Freije and Sanchez-Puerta (2007)
 - Grimm (2007)
 - Pseudo-panels
 - Antman and McKenzie (2007)
 - Calónico (2006)

3. Intragenerational mobility

- Now the concept of interest (for us) is **directional income movement**.
- A generalization of $M^3(Y_0, Y_1)$, which gives the integral of the na-GIC, is a suitable measure of (proportional) directional income movement.

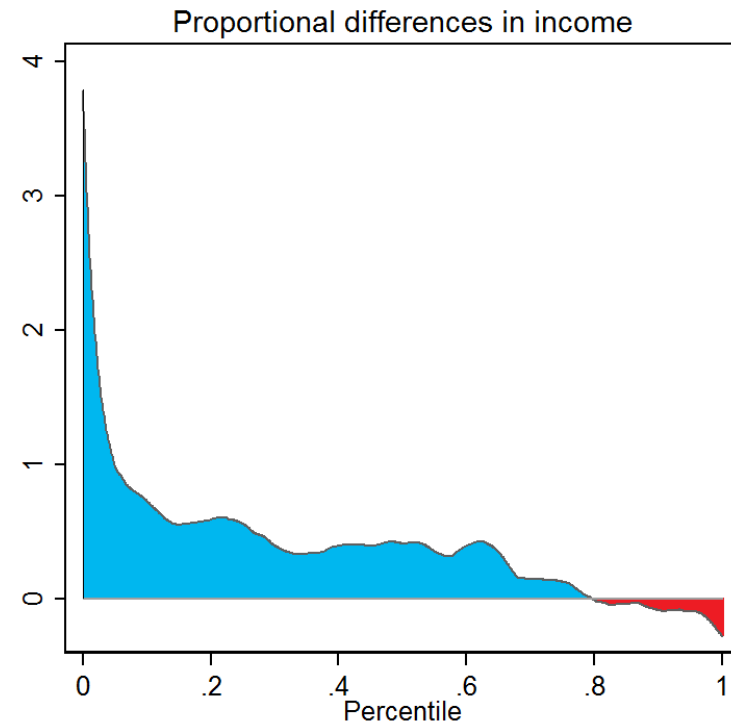
$$M_\alpha(Y_0, Y_1) = \int_0^1 \left(\frac{y_1(p_0) - y_0(p_0)}{y_0(p_0)} \right)^\alpha dp_0 = \int_0^1 g(p_0)^\alpha dp_0$$

- This index can be decomposed ‘horizontally’, into gainers and losers:

$$M(Y_0, Y_1; \alpha) = \int_0^1 m(y_0(p_0), y_1(p_0); \alpha) dp$$

$$= \int_{d(y_0, y_1) < 0} m(y_0(p_0), y_1(p_0); \alpha) dp + \int_{d(y_0, y_1) > 0} m(y_0(p_0), y_1(p_0); \alpha) dp$$

Figure 3. Horizontal decomposition of the mobility profile (proportional income changes). Peru 2004-06.



3. Intragenerational mobility

Or 'vertically', by 'class' or origin:

$$\begin{aligned}
 M(Y_0, Y_1; \alpha) &= \int_0^{F(z)} m(y_0, y_1; \alpha) dp + \int_{F(z)}^{F(\zeta_L)} m(y_0, y_1; \alpha) dp + \int_{F(\zeta_L)}^{F(\zeta_H)} m(y_0, y_1; \alpha) dp \\
 &\quad + \int_{0F(\zeta_H)}^{F(1)} m(y_0, y_1; \alpha) dp \\
 &= q_P \overline{m}_P(y_0, y_1; \alpha) + q_V \overline{m}_V(y_0, y_1; \alpha) + q_M \overline{m}_{MC}(y_0, y_1; \alpha) + q_R \overline{m}_R(y_0, y_1; \alpha),
 \end{aligned}$$

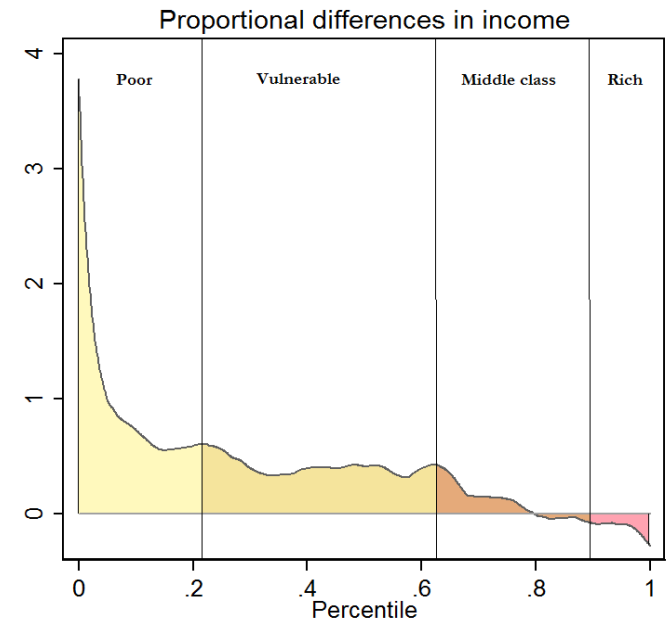


Figure 4. Vertical decomposition of the mobility profile (proportional income changes). Peru 2004-06.

3. Intragenerational mobility

- **An application:** partition the distribution into ‘economic classes’, by analogy to the identification procedure of Sen (1976) for unidimensional poverty:
 - **Poverty:** a state where the basic functionings of food security and good nutrition are not guaranteed.
 - $z = \text{PPP}\$4/\text{day}$ per capita
 - **Middle-class:** a state defined by the basic functioning of economic security (operationalized as low vulnerability to falling back into poverty)
 - “Validation” using a complementary approach: subjective self-assessment.
 - $\zeta_L = \text{PPP}\$10/\text{day}$ per capita
 - **Elite:** the politically powerful top of the distribution
 - $\zeta_H = \text{PPP}\$50/\text{day}$ per capita

3. Intragenerational mobility

- The two decompositions are additive and can be combined into a 'matrix decomposition':

$$\begin{aligned}
 M(Y_0, Y_1; \alpha) = & q_P^P \overline{m}_P(y_0, y_1; \alpha) + q_P^V \overline{m}_P(y_0, y_1; \alpha) + q_P^{MC} \overline{m}_P(y_0, y_1; \alpha) + q_P^R \overline{m}_P(y_0, y_1; \alpha) + \\
 & q_V^P \overline{m}_V(y_0, y_1; \alpha) + q_V^V \overline{m}_V(y_0, y_1; \alpha) + q_V^{MC} \overline{m}_V(y_0, y_1; \alpha) + q_V^R \overline{m}_V(y_0, y_1; \alpha) + \\
 & q_M^P \overline{m}_{MC}(y_0, y_1; \alpha) + q_M^V \overline{m}_{MC}(y_0, y_1; \alpha) + q_M^{MC} \overline{m}_M(y_0, y_1; \alpha) + q_{MC}^R \overline{m}_M(y_0, y_1; \alpha) + \\
 & q_R^P \overline{m}_R(y_0, y_1; \alpha) + q_R^V \overline{m}_R(y_0, y_1; \alpha) + q_R^{MC} \overline{m}_R(y_0, y_1; \alpha) + q_R^R \overline{m}_R(y_0, y_1; \alpha) \quad ,
 \end{aligned}$$

- When $\alpha = 0$, this decomposition is the sum of all cells in a transition matrix (with cell boundaries given by fixed income thresholds):

$$\begin{aligned}
 M(Y_0, Y_1; 0) = & q_P^P + q_P^V + q_P^{MC} + q_P^R + \\
 & q_V^P + q_V^V + q_V^{MC} + q_V^R + \\
 & q_{MC}^P + q_{MC}^V + q_{MC}^{MC} + q_{MC}^R + \\
 & q_R^P + q_R^V + q_R^{MC} + q_R^R \quad ,
 \end{aligned}$$

3. Intragenerational mobility

There are a number of interesting cuts at this decomposition.
This one focuses on movers and stayers...

Origin\Destination	Poor	Near Poor	MC & above
Poor	Chronic Poverty		Upwardly mobile
Near Poor		Near Poor	
MC & above	Downwardly mobile		Established Middle Class

3. Intragenerational mobility

This one focuses on poverty transitions:

Origin\Destination	Poor	Near Poor	MC & above
Poor	Chronic Poverty	Poverty leavers	
Near Poor	Entrants into poverty	Near Poor (Vulnerable)	
MC & above			

3. Intragenerational mobility

This one focuses on middle-class transitions:

Origin\Destination	Poor	Near Poor	MC & above
Poor			The New Middle Class
Near Poor			
MC & above	The Displaced		Established Middle Class

3. Intragenerational mobility

- An application to Peru: 2004-2006 ($\alpha = 0$)

		2,006 (Destination)			
		P	V	MC+	
2,004 (origin)	P	22.2	10.3	1.4	33.9
	V	6.1	23.4	10.3	39.8
	MC+	1.0	7.3	18.1	26.3
		29.3	40.9	29.8	100.0

3. Intragenerational mobility

- An application to Peru: 2004-2006

Proportional income changes in each cell

		2,006 (Destination)			
		P	V	MC+	
2,004 (origin)	P	.28	1.34	4.21	.77
	V	-.44	.13	1.37	.36
	MC+	-.79	-.47	.21	-.02
		.10	.32	.80	.40

3. Intragenerational mobility

- An application to Peru: 2004-2006 ($\alpha = 1$)

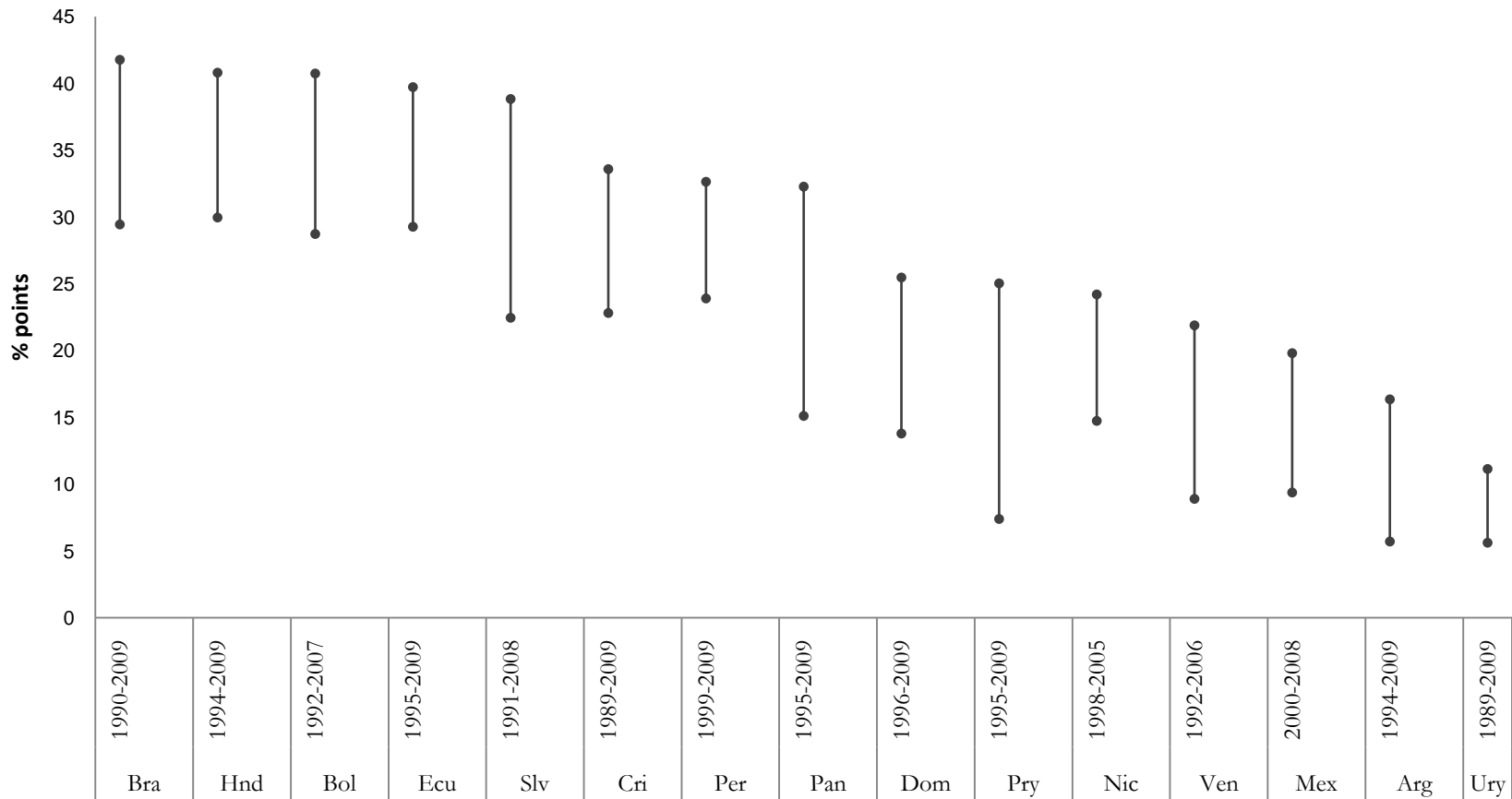
		2,006 (Destination)			
		P	V	MC+	
2,004 (origin)	P	.60	.14	.06	.26
	V	-.03	.03	.14	.15
	MC+	-.01	-.03	.04	.00
		.03	.13	.24	.40

The decomposition of $M(Y_0, Y_1, \alpha=1)$ yields the product of the previous two matrices:
 population proportions * mean income growth per cell.

3. Intragenerational mobility

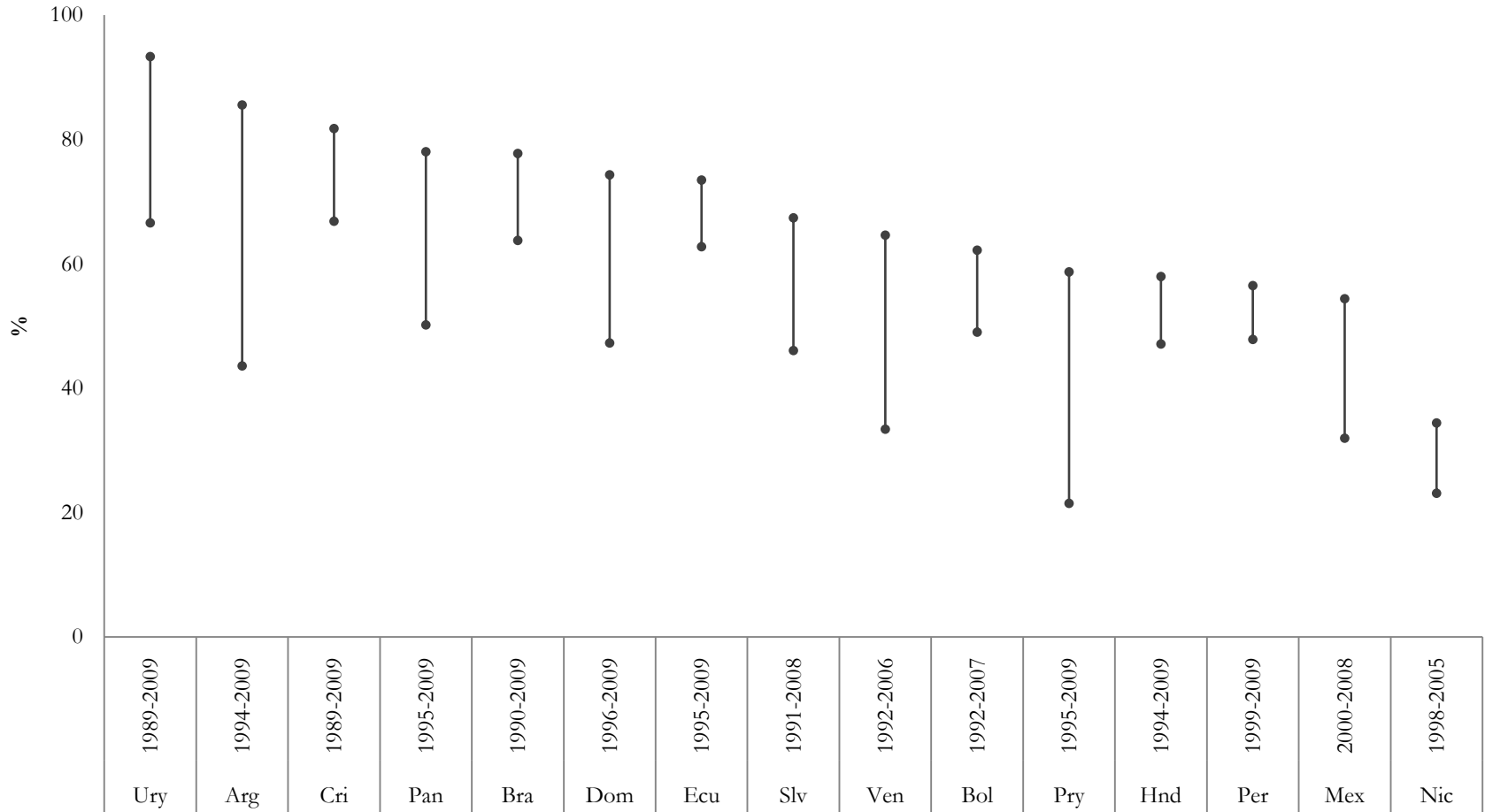
A “pseudo-panel” application, using the Lanjouw, Luoto and McKenzie (2010) approach to estimating bounds on mobility

% of total population that exited poverty \$4 PPP



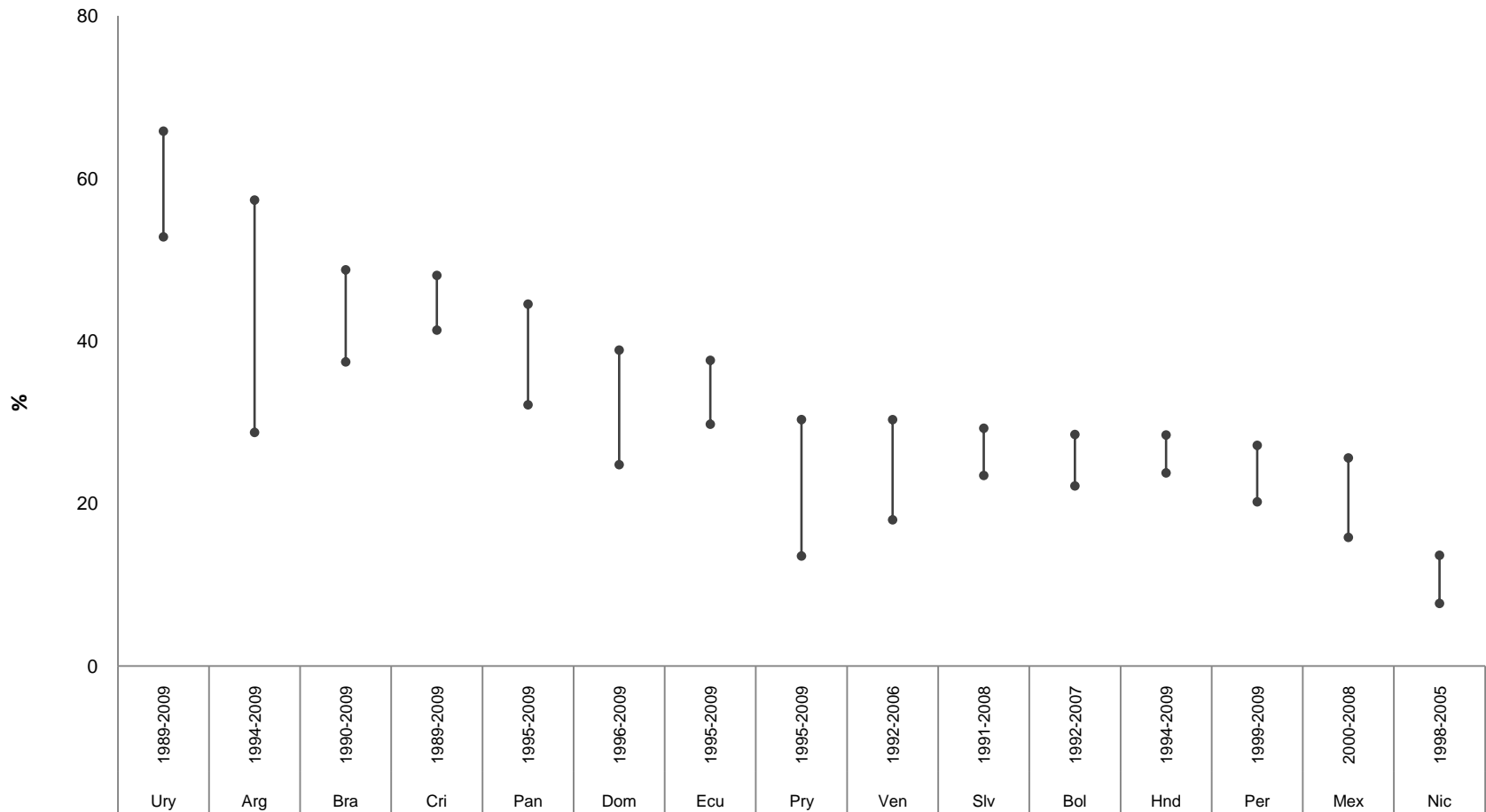
3. Intragenerational mobility

Share of originally poor that exited \$4 PPP poverty



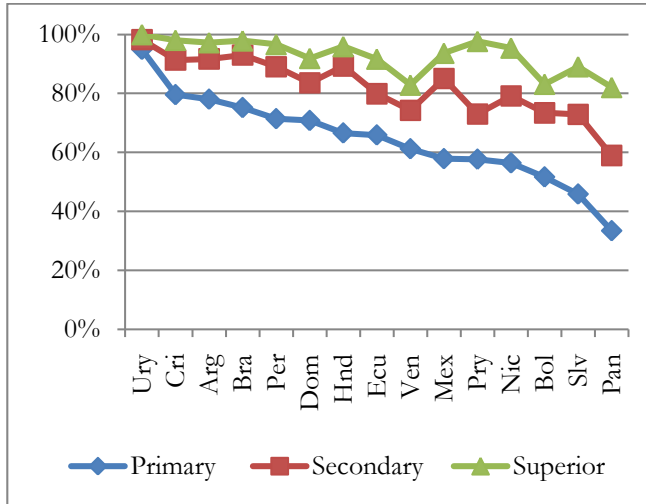
3. Intragenerational mobility

Share of those originally below \$10 PPP that enter the **middle class**

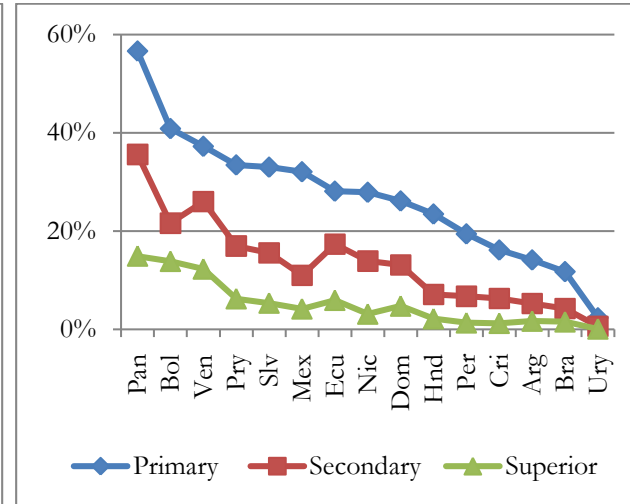


Transitional mobility conditional on educational status

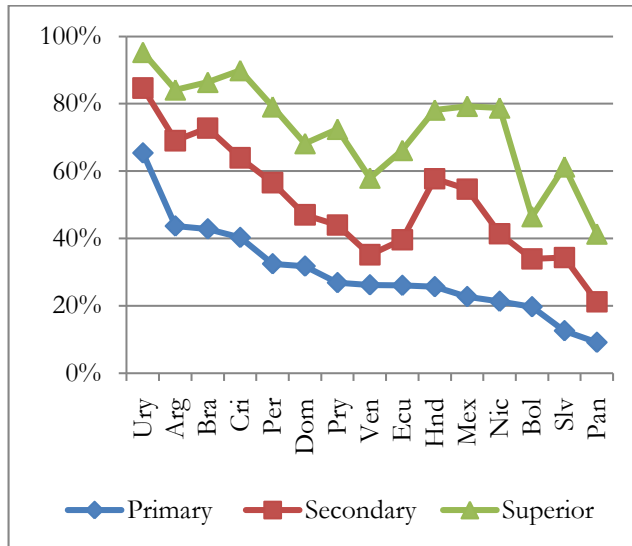
Poverty exit



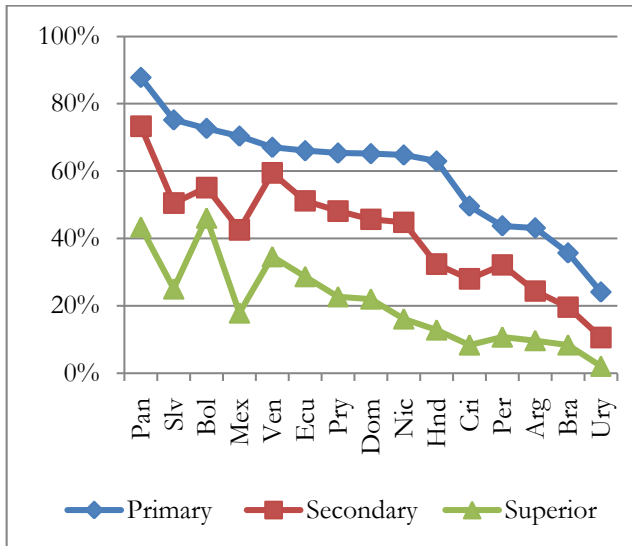
Poverty entry



Middle class entry

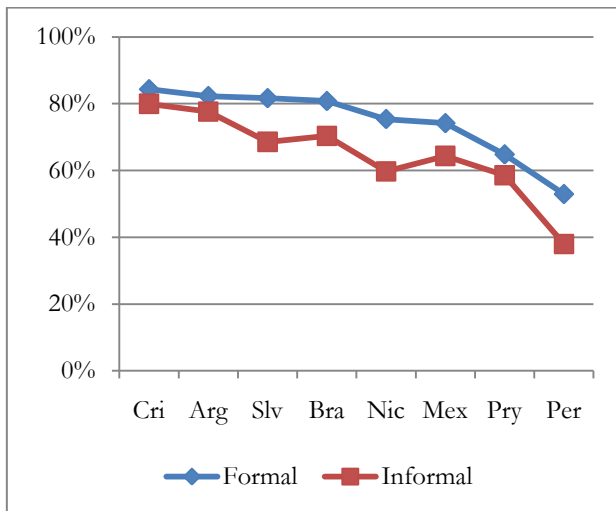


Exit from Middle Class

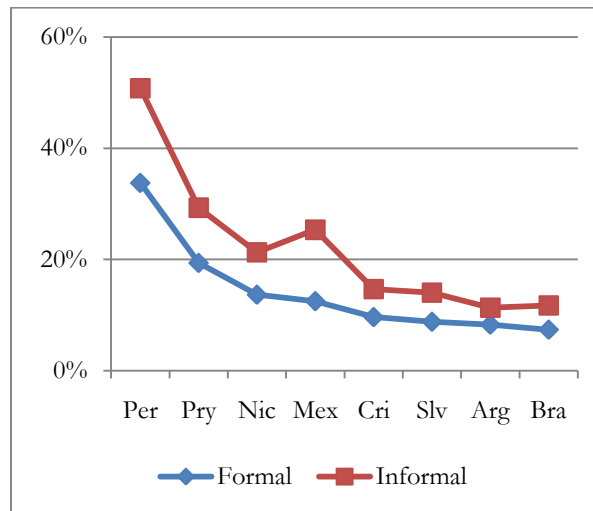


Transitional mobility conditional on labor market status

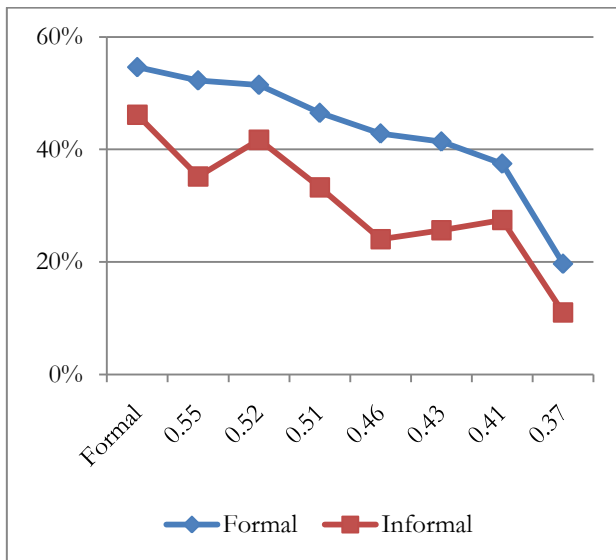
Poverty exit



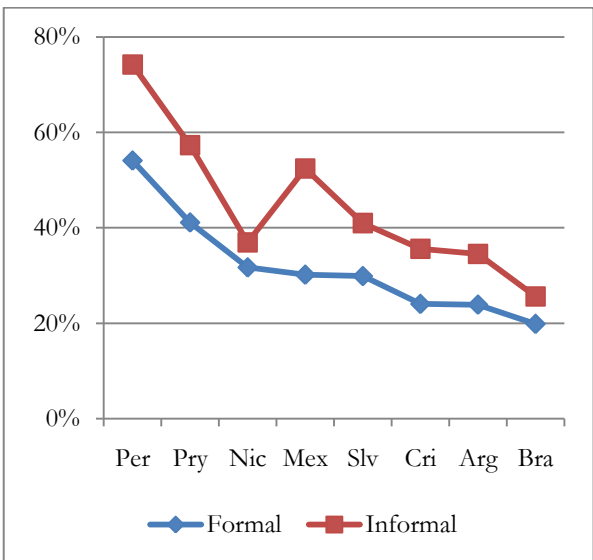
Poverty entry



Middle class entry



Exit from Middle Class



4. Concluding remarks

- At least six different meanings for economic mobility
 - Five of those can be underpinned by mobility profiles built upon individual mobility functions
- We choose to focus on:
 - mobility as origin independence to study intergenerational mobility
 - Mobility as directional income movement to study intra-generational mobility
- Evidence that mobility across generations is low in LAC exists for educational attainment and achievement
 - Because so many predetermined circumstances proxy for the living standards of parents, measures of intergenerational (im) mobility, or persistence, are very close to measures of inequality of opportunity
 - The budding literature on measuring I.Op. internationally suggests LAC is also an outlier

4. Concluding remarks

- A standard measure of mobility as (proportional) directional income movement is simply the integral of the non-anonymous growth incidence curve (na-GIC).
- This measure can be ‘matrix-decomposed’ into terms corresponding to the upward and downward movements into and out of specific “economic classes”, such as the poor, the vulnerable or the middle class.
- Estimates of this decomposition, both for actual and “pseudo” panels, suggest that there has been considerable movement out of poverty and into the middle class in Latin America in the last decade or two
 - There has continued to be some offsetting downward movement too
 - Education and labor market formality are correlated with those movements.