



ASOCIACION ARGENTINA
DE ECONOMIA POLITICA

LVI REUNIÓN ANUAL | NOVIEMBRE DE 2021

Intergenerational mobility in Latin America: the multiple facets of social status and the role of mothers

Ciaschi, Matías
Marchionni, Mariana
Neidhöfer, Guido

ISSN 1852-0022

Intergenerational mobility in Latin America: the multiple facets of social status and the role of mothers

Matías Ciaschi* Mariana Marchionni Guido Neidhöfer

Preliminary version. Please, do not quote nor cite without permission.

August 18, 2021

Typical intergenerational mobility studies focus on a single measure of an underlying latent social status; this procedure can lead to attenuation biases in intergenerational persistence estimates. This paper aims to extend the model to integrate different proxy measures in one unified framework for Latin American countries. Following the Lubotsky and Wittenberg (2006) approach, we: i) provide a more comprehensive study of intergenerational mobility considering not only the education but also the occupation of both parents as proxies for family background; ii) compare the relevance of each single proxy in explaining the evolution of intergenerational mobility, particularly the importance of mother's characteristics. Our findings suggest that intergenerational persistence estimates are between 26% and 40% higher when considering parents' occupation (and not only education) as proxies for family background. Additionally, mother's attributes have been increasing their relative importance in family background throughout the years; particularly, mother's characteristics became at least equally important than fathers' ones since the 1980s.

JEL codes: D63, J62, O15.

Keywords: Intergenerational Mobility, Education, Occupation, Mothers, Latin America.

*Contacts and affiliations: Matías Ciaschi, CEDLAS-IIE-FCE Universidad Nacional de La Plata & CONICET (mciaschi@cedlas.org). Mariana Marchionni, CEDLAS-IIE-FCE Universidad Nacional de La Plata & CONICET (mmarchionni@cedlas.org). Guido Neidhöfer, ZEW Mannheim (guido.neidhoefer@zew.de).

1 Introduction

Latin America has historically been one of the regions with the highest levels of intergenerational persistence of socioeconomic status and low equality of opportunity (Behrman et al., 2001; Brunori et al., 2013; Daude and Robano, 2015). However, due to data constraints, intergenerational mobility measures for Latin America mostly relied on measures of education (see e.g., Hertz et al., 2008; Neidhöfer et al., 2018). While the study of educational mobility is relevant in itself, the importance of other dimensions to explain intergenerational relationships remains an open question (Torche, 2014). Moreover, recent contributions focusing on developed countries find opposite results about the hypothesis considering that previous intergenerational persistence estimates are downward biased due to focusing on a single and noisy measure of parental background (Clark, 2015; Vosters, 2018).

The integration of different proxy measures of underlying status rather than relying on a single measure of parental background not only can provide a more comprehensive study of intergenerational mobility patterns. It also permits the evaluation of the relevance of each proxy measure to explain children's early life context. In particular, when information about both parents is available it is possible to analyze whether mother or father's characteristics are more relevant in determining children's parental background. Moreover, the relative importance of each parent's attributes can show different patterns over time hand in hand with changes in cultural factors. Despite the importance of a better understanding of the relevance of each family member's characteristics in the conformation of children's opportunities, to the best of our knowledge there are not available empirical contributions in this topic so far.

A recent branch of literature on social mobility applies the methodology proposed by Lubotsky and Wittenberg (Lubotsky and Wittenberg, 2006, henceforth LW approach) to integrate different proxy measures of family background in one unified framework. The LW approach produces an intergenerational mobility coefficient with the least attenuation bias from an optimally weighted linear combination of multiple proxies for parental background. So far, intergenerational estimates

following the LW approach are available for few developed countries such as Sweden ([Adermon et al., 2019](#)) and the United States ([Vosters, 2018](#)). Previous contributions ([Neidhöfer et al., 2018](#)) apply the LW approach and obtain preliminary estimates for the overall association between the highest education and best occupation among both parents, and children's education for five Latin American countries. In this paper, we aim to build upon this previous work and substantially extend it. First, by analyzing different cohorts and including a more granular specification for the education and occupation of both parents. Second, by providing novel summary indicators of intergenerational mobility in Latin America. We go beyond the typical intergenerational mobility in education and explore other dimensions of children's well-being as a function of parental education such as their cohort-income rank ([Chetty et al., 2014](#)). Third, by comparing the relative importance of each single dimension to explain the persistence of inequality in Latin America (e.g., their weights in the LW approach). In particular, our analysis presents new evidence on the changing relevance of mother's education and occupation, relative to father's attributes, for the intergenerational transmission of socioeconomic status in the region. So far, to the best of our knowledge, the comparison between mothers' and fathers' role in explaining intergenerational mobility is mostly limited to estimates for father-son and mother-daughter pairs (e.g., [Kroeger and Thompson, 2016](#); [Schneebaum et al., 2016](#)).

Our results suggest that intergenerational persistence estimates are between 26% and 40% downward biased when considering only parents' education as proxies for family background compared to the inclusion of parents' occupation. However, the evolution of intergenerational mobility is not substantially different in one case or another when considering children's years of education as outcome variable but it shows some differences when analyzing children's income position. Since the LW approach optimally weights each proxy measure for parental background, we also evaluate the changing relevance of mothers' characteristics to explain it. Our findings suggest that mother's attributes have been increasing their relative importance across children's birth cohorts. In particular, they became at least equally relevant as father's characteristics since the 1980s, especially for daughters.

This paper is organized as follows: Section 2 describes the data sources and variables used to obtain our estimates. Section 3 explains the methodological steps from the Lubotsky and Wittenberg (2006) approach. Section 4 presents the main results of this paper: the relevance of parents' occupation on intergenerational persistence estimates and the role of mothers' characteristics in this framework. Finally, Section 5 concludes the paper.

2 Data

The analysis described above requires information about the education and occupation of both parents and also about children's education and incomes. Most of the available household surveys report this information for individuals living in the same household. However, it has been shown that co-residency represents a relevant source of upward bias in social mobility estimates (Emran et al., 2016; Emran and Shilpi, 2019). To avoid this bias, our selection criteria to include a country in our sample is the availability of at least one representative survey with retrospective questions about father's and mother's education and occupation¹. The surveys used in this paper are summarized in Table 1. Following the protocol of the Socioeconomic Database of Latin America and the Caribbean (SEDLAC), a joint project between CEDLAS of the National University of La Plata and the World Bank, we harmonize these surveys' variables in order to make them comparable between countries and over time.

For parents' education, we use years of schooling which were constructed using retrospective questions about parental education. The classification of parents' occupation was done based on the International Standard Classification of Occupations (ISCO) only for Argentina and Brazil. For the rest of the countries, only broader occupational categories were available despite they are similar across countries². Furthermore, we use information on years of schooling and income to compute children's education and their rank in the corresponding cohort income distribution. Both will be

¹In each survey, retrospective questions about parents' occupation are focused at the time the respondent had around 15 years old.

²For most of these countries, parents' occupational categories available are: employee, employer, self-employed, rural worker and domestic service worker.

used as outcome variables in the analysis. The sample comprises individuals born between 1940 and 1989 which report information on both parents' education and occupation and have at least 23 years old in order to only consider individuals who are not anymore enrolled in the education system. Including all countries and cohorts, the sample comprises nearly 116,000 individuals. In all our micro-level estimations of intergenerational persistence, we weigh each observation by the inverse probability of selection provided by the survey, normalizing the weights over the different survey waves.

Table 1: Household surveys.

Country	Name of survey	Acronym	Coverage	Survey versions
Argentina	<i>Encuesta Nacional sobre la Estructura Social</i>	ENES	Urban	2014
Brazil	<i>Pesquisa Nacional por Amostra de Domicilios</i>	PNAD	National	2014
Chile	<i>Encuesta de Caracterizacion Socioeconomica Nacional</i>	CASEN	National	2009
Ecuador	<i>Encuesta de Condiciones de Vida</i>	ECV	National	1995, 1998, 2006, 2014
Mexico	<i>Mexican Family Life Survey</i>	MXFLS	National	2002, 2005-2006, 2009-2012
Panama	<i>Encuesta de Niveles de Vida</i>	ENV	National	1997, 2008

3 Methodology

As mentioned above, due to data restrictions, the analysis of intergenerational mobility in Latin America has mostly focused on education. Typically, two procedures are applied when information about both parents' education is available: the dominance principle and the average over parents' years of education. The latter arbitrarily sets equal weights for both proxies while the former gives all weight to the parent with the higher education. It has been shown that the intergenerational persistence coefficient is underestimated when applying the dominance principle and overestimated when taking average parents' years of education, despite these biases diminishes as assortative mating is higher (Neidhöfer et al., 2018). In sum, most of the previous contributions not only do not consider other proxy variables for childrens' family background beyond parental education but also do not gives the optimal weights for mother and father's education variables.

Such limitations may be hiding relevant information that explains the intergenerational transmission of socioeconomic status. By applying the LW approach we can overcome these problems by including many dimensions of parental socioeconomic status. In addition, it allows us to compute weights for each of these dimensions that inform on the relative contribution of each dimension to the intergenerational mobility measure. The LW approach was shown to be a procedure that leads to a minimization in the attenuation bias compared to the inclusion of one single proxy for the unobserved variable (Lubotsky and Wittenberg, 2006). Additionally, unlike other methods such as factor analysis, it does not require strong assumptions on cross-correlations of the measurement errors. The procedure can be summarized as follows. Considering that children's education or income rank (y_i) depend on parental socioeconomic status (h_i), the objective is to optimally estimate the intergenerational association parameter β from equation (1):

$$y_i = \beta h_i + e_i \quad (1)$$

Assuming that parental socioeconomic status is a latent and unobserved variable for which multiple proxy measures $x_{ji} \in (1, 2, \dots, J)$ exist, each proxy measure, such as the education and occupation category of mother and father, can be defined as its linear projection³:

$$x_{ji} = \rho_j h_i + u_{ji} \quad (2)$$

It is typically assumed that each proxy does not affect children's education or income directly, but only through parental socioeconomic background. Furthermore, a normalization is applied that sets the scale of the latent variable on the scale of one of the proxies, such that $\rho_1 = 1$. Then, all other ρ_j can be defined as

$$\rho_j = \frac{\text{Cov}(y_{it}, x_{ji})}{\text{Cov}(y_{it}, x_{1i})} \quad (3)$$

and thus, can be conveniently obtained by instrumental variable estimation with x_{ji} as dependent variable and y_{it} as instrument for x_{1i} . The estimates of ρ_j represent the optimal weights

³Following previous contributions using LW approach (Adermon et al., 2019; Vosters, 2018) we considered one equation for each binary indicator for mother's and father's occupation category. A category grouping missing parental occupation is omitted because it will serve as the reference category in our analysis.

of a linear combination of multiple dimensions/proxies, which can be interpreted as the relative relevance of each dimension for explaining the intergenerational transmission of socioeconomic background. Different from factor analysis or instrumental variables approaches, the LW method does not require an strong assumption on zero cross-correlations of the measurement errors in the proxies' equations, i.e. $Cov(u_{ji}, u_{jk}) = 0$ ⁴. The LW approach not only relaxes this assumption but also exploits this correlation when producing the estimates of ρ_j .

Finally, the estimated coefficient of association between children's education or income rank and the socioeconomic status of their parents can be obtained as:

$$\hat{\beta} = \sum_{j=1}^J \hat{\rho}_j \hat{\phi}_j \quad (4)$$

where $\phi_1, \phi_2, \dots, \phi_J$ are the estimated coefficients of an auxiliary joint linear regression of children's education or income rank on all the proxy measures of parental socioeconomic background, such as education and occupation of the father and mother:

$$y_i = \phi_1 x_{1i} + \phi_2 x_{2i} + \dots + \phi_J x_{Ji} + v_i \quad (5)$$

In our analysis, we report the evolution of $\hat{\beta}$ over time and for each country. We also use the weights of each dimension ρ_j to assess the evolution of the relative importance of single characteristics, especially the mother's education and occupation. Following the LW approach, we estimate the β 's and the ρ 's for different birth cohorts in Argentina, Brazil, Chile, Ecuador, Mexico, and Panama. These estimations provide a more comprehensive picture of the evolution and channels of intergenerational mobility in Latin America. In addition, we deepen the analysis by studying heterogeneities by children's gender and urban/rural birthplace.

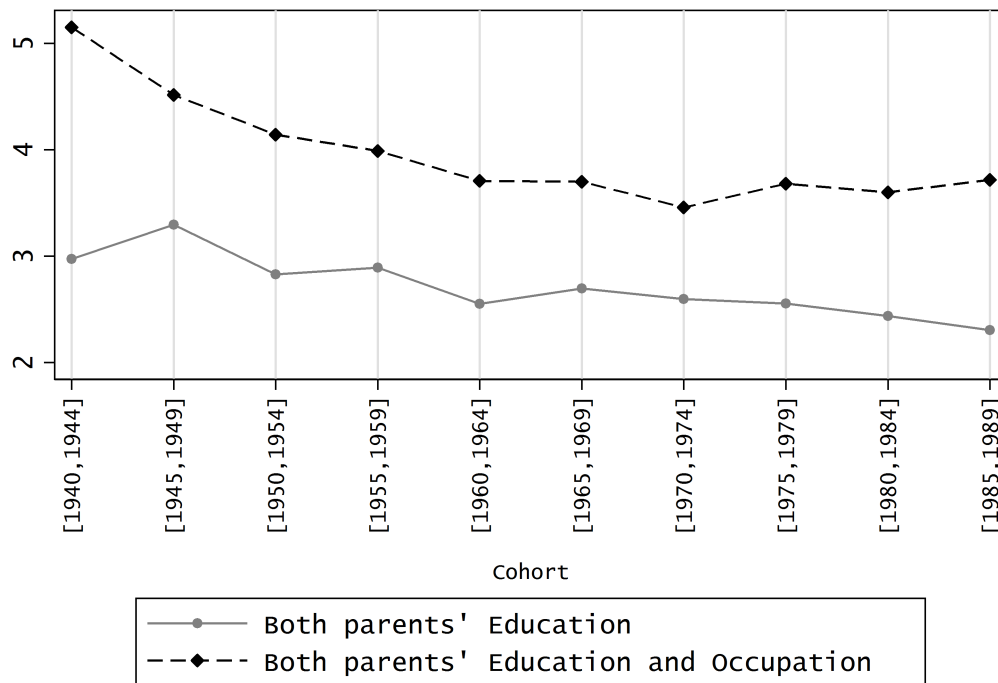
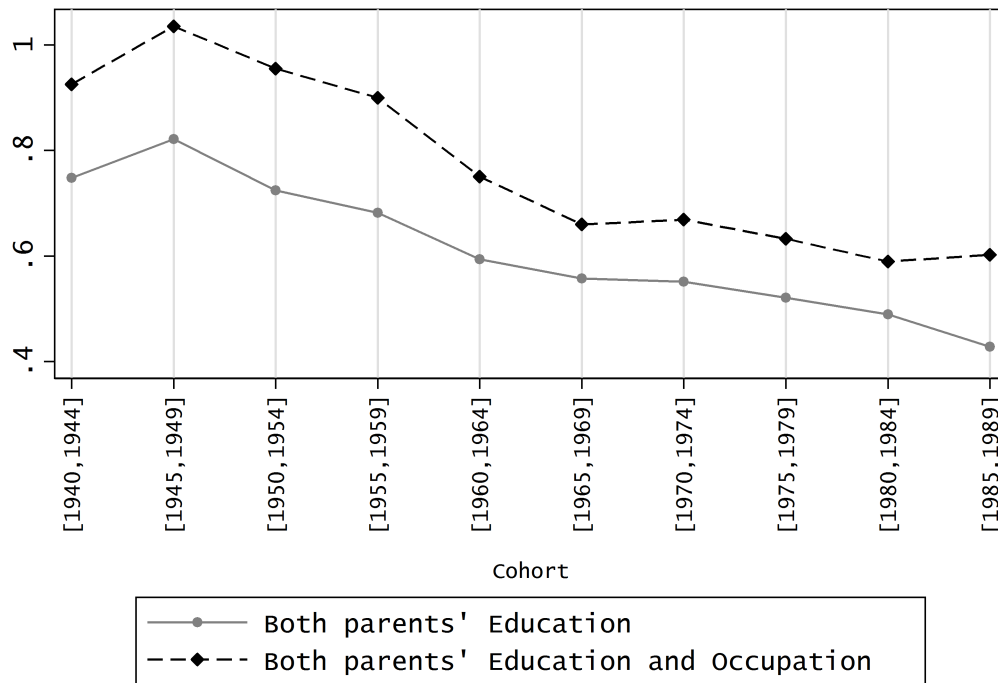
⁴This is a strong assumption in our analysis since, for instance, different proxies for family background can be affected by common shocks.

4 Results

4.1 Relevance of parents' occupation in family background

In this subsection, we report the results of this paper regarding the relevance of parents' occupation in explaining intergenerational mobility patterns. In Figure 1 we present the evolution of the estimated intergenerational persistence coefficient for the unweighted average of the countries in our sample. In line with previous contributions on educational intergenerational mobility in Latin America (Neidhöfer et al., 2018), we find a decreasing pattern in the intergenerational persistence coefficient. Moreover, this result is robust to the consideration of different children's outcomes: years of education and cohort-income rank. But different from previous literature, we report the estimation of β by LW considering only parents' education and also including their occupation as proxies for underlying status. Our results suggest that traditional estimates of intergenerational persistence in Latin America are biased downward because they only use one proxy measure of underlying status. On average, the addition of parents' occupation as proxies for family background increases intergenerational persistence estimations in between 26% and 40%. The evolution across time of the two estimated β 's are similar when considering children's education but they show some differences when evaluating children's income rank. While the estimated intergenerational persistence excluding parents' occupations shows a decreasing pattern over time at a relatively slow pace, the estimation of β considering all the proxy variables available decreases more rapidly for the older cohorts and shows a flat or even increasing pattern for the younger ones.

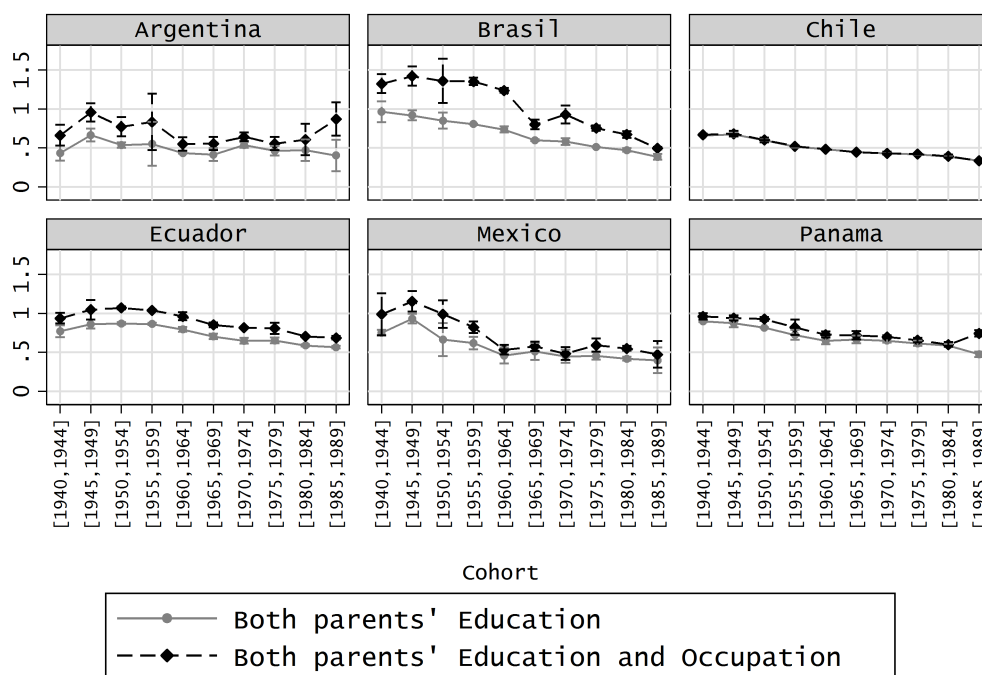
Figure 1: Intergenerational persistence. Children's education (upper panel) and income rank (lower panel)



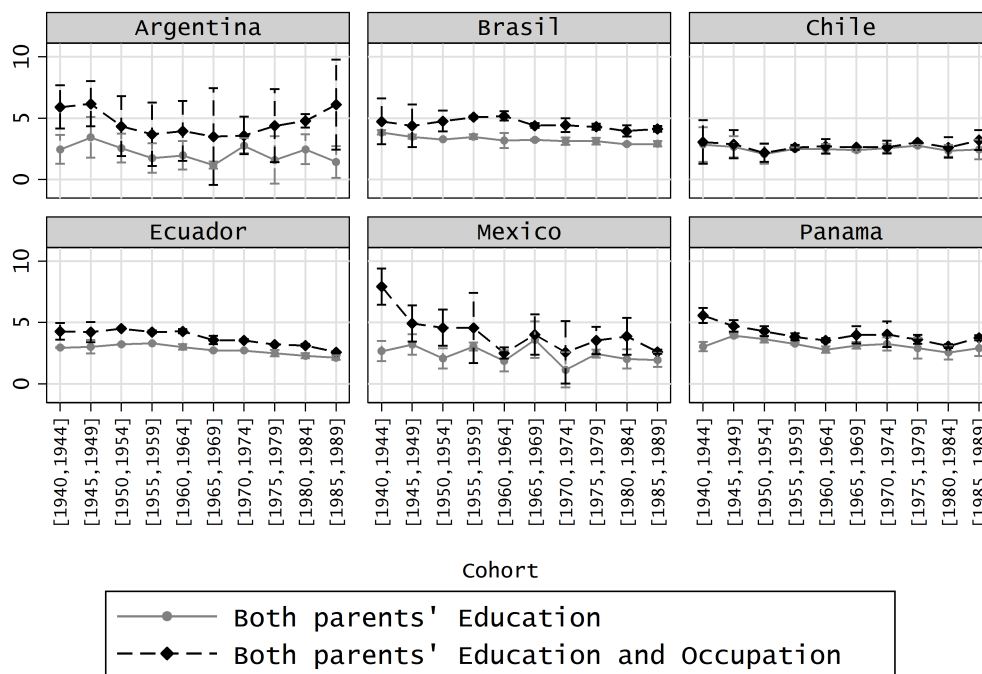
Despite informative, the unweighted average estimates of β may be hiding some heterogeneities across countries. In Figure 2 we present the evolution by country of the same two estimated intergenerational persistence coefficients as in Figure 1. Both considering children's education and cohort-income rank, results suggest that parents' occupation has a higher relevance in explaining intergenerational persistence in countries such as Argentina, Brazil, and Mexico while it shows smaller importance in Chile, Ecuador, and Panama. Moreover, Figure 2 suggest that the evolution of the two estimated β 's can be different, particularly for the first group of countries and considering children's income rank as outcome variable.

We further evaluate if the reported patterns for the estimates β 's are different considering other children's circumstances. In the Appendix section, we show the estimations of the intergenerational persistence coefficient by children's gender and birthplace zone. Figure A.1 and Figure A.2 shows the results for daughters and sons considering their education and cohort-income rank as outcome variables, respectively. Results suggest that intergenerational mobility is lower for sons than for daughters, especially when considering children's education, despite the evolution is similar. The inclusion of parents' occupation as proxy for family background seems to be relevant for both sons and daughters, little more for the former than the latter. Moreover, the results show that the differences in the evolution of the β 's are similar to the one described above both for sons and daughters. On the other hand, Figure A.3 and Figure A.4 we present the patterns of the intergenerational persistence coefficient for rural and urban birthplace zones, respectively. The figures suggest that the inclusion of parents' occupation proxies are more relevant for children from rural zones in explaining the estimated β 's but the evolution of these coefficients do not show substantially different patterns by birthplace zone, particularly when considering children's years of education as outcome variable. Similar to the results from the analysis by children's gender, the results show again some differences in the evolution of the two estimated β 's when considering children's income rank.

Figure 2: Intergenerational persistence by country. Children's education (upper panel) and income rank (lower panel)



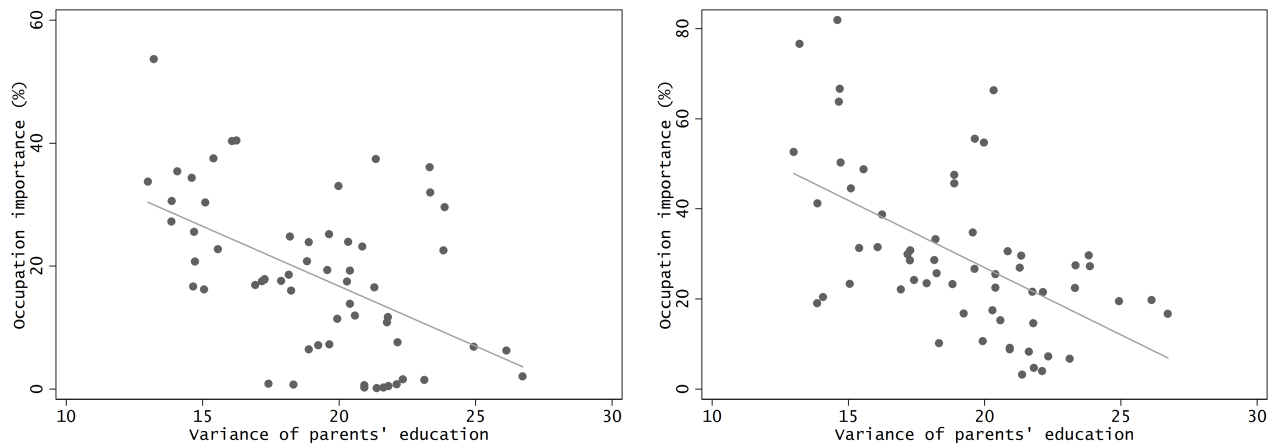
Source: own estimates based on household surveys.



Source: own estimates based on household surveys.

Several hypotheses can be drawn to explain the importance of parents' occupation as proxy for children's family background. For example, the degree of educational inequality in parents' generation can have an important role in this context. In societies where the distribution of years of education was very unequal for parents, education can be more relevant to explain children's outcomes since they experienced very different educational backgrounds. Big differences in the educational attainment between parents are likely to be correlated with high occupational segregation; then, parental occupation is not very informative about family background differences since they have already materialized through differences in education. On the contrary, in societies where parental years of education were more equally distributed there can be more space for parental occupation to have a more relevant role in shaping family background. Differences in household income and children's opportunities are relatively more explained by differences in parents' occupation since education is relatively similar across families. In other words, the inclusion of parents' occupation as an additional proxy for family background permits to consider different channels beyond education through intergenerational mobility can materialize, for example, the labor market. According to this hypothesis, we would expect to find a negative relationship between parental education inequality (e.g., parental education variance) and parents' occupation relevance in explaining the intergenerational persistence coefficient (e.g., differences in the estimated β 's). In Figure 3 we explore this hypothesis in a simple graphical analysis. Results suggest that parent's occupation relevance, measured by the proportional difference between β 's, decreased (increased) when the variance of parent's education increased (decreased).

Figure 3: Parents' occupation relevance and parental education variance. Children's education (left panel) and income rank (right panel)



4.2 The role of mothers in intergenerational mobility

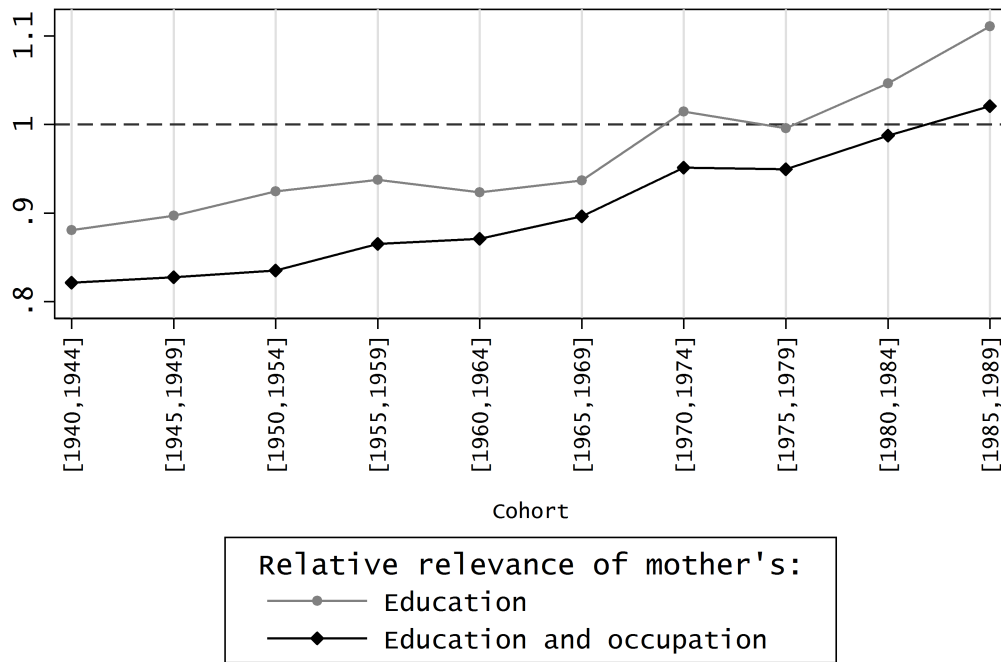
In this subsection, we explore the changing importance of mothers' characteristics in explaining children's family background over time. In Figure 4 we present the evolution of the ρ 's of mother characteristics relative to father's ones for the Latin American unweighted average. Both considering children's education and cohort-income rank, mothers' education and occupation have increased their relative relevance throughout children's birth cohorts. For individuals born between 1940 and 1944, mother's characteristics nearly 20% less relevant than fathers' ones for children's underlying status. However, the relative ρ 's of mother characteristics increased over time; for the youngest cohorts mother's attributes at least equally important than father's ones to explain family background, despite showing a flat or even slow decreasing pattern when considering income rank as children's outcome. Another conclusion can be drawn from Figure 4: the inclusion of parents' occupation as proxy for children's underlying status diminishes the importance of mother's characteristics. This result points out that father's occupation variables are more relevant than mothers' ones in explaining children's family background. Considering the results shown in the previous subsection, a possible explanation behind this result can be found in higher levels of educational inequality between fathers than between mothers. Despite the evolution of the relative ρ 's of mothers' characteristics are quite similar including and not including parents' occupation as proxy vari-

ables, mother's importance in explaining children's family background can be overestimated when only educational proxy variables are considered.

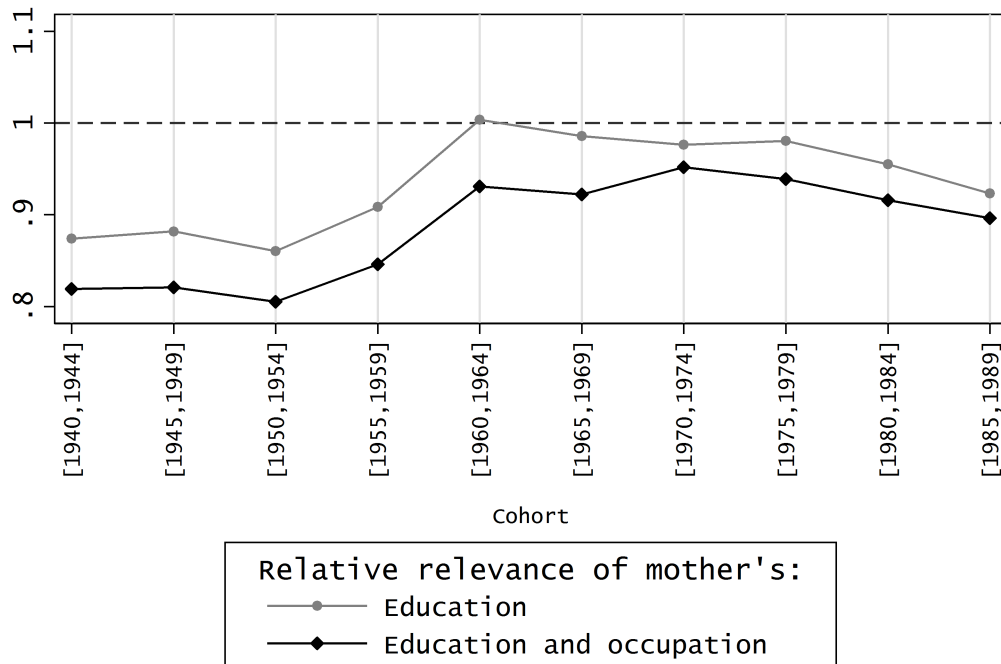
In Figure 5 we explore the dynamics of the relative importance of mothers' characteristics by country. Results suggest that the evolution of the relative ρ 's follow a similar pattern as the one described above for the unweighted average. When considering children's years of education, it seems to be increasing for every country; even it is statistically higher than father's ρ 's in Argentina and Chile and equal in the rest of the countries for the youngest cohorts. However, the relative ρ 's show a firstly increasing and then flat evolution when analyzing children's income rank.

The analysis of the importance of mother's characteristics can be deepened by evaluating heterogeneities by children's circumstances such as gender and birthplace zone. In the Appendix section, Figure A.5 and Figure A.6 show these patterns for daughters and sons considering education and cohort-income rank, respectively, as outcome variables. These figures suggest that mothers' attributes importance have increased for both sons and daughters, but more for the latter than the former. Moreover, mothers' relative ρ 's became higher than 1 for the four younger birth cohorts only for daughters while it shows a relatively more flattened pattern for sons for the same cohorts. On the other hand, Figure A.7 and Figure A.8 present the analysis by birthplace zone. Results suggest that mother's characteristics are more relevant for children born in rural than in urban areas. However, the increasing evolution of this indicator is similar very similar between both birthplace zones.

Figure 4: Relevance of mothers' characteristics. Children's education (upper panel) and income rank (lower panel)

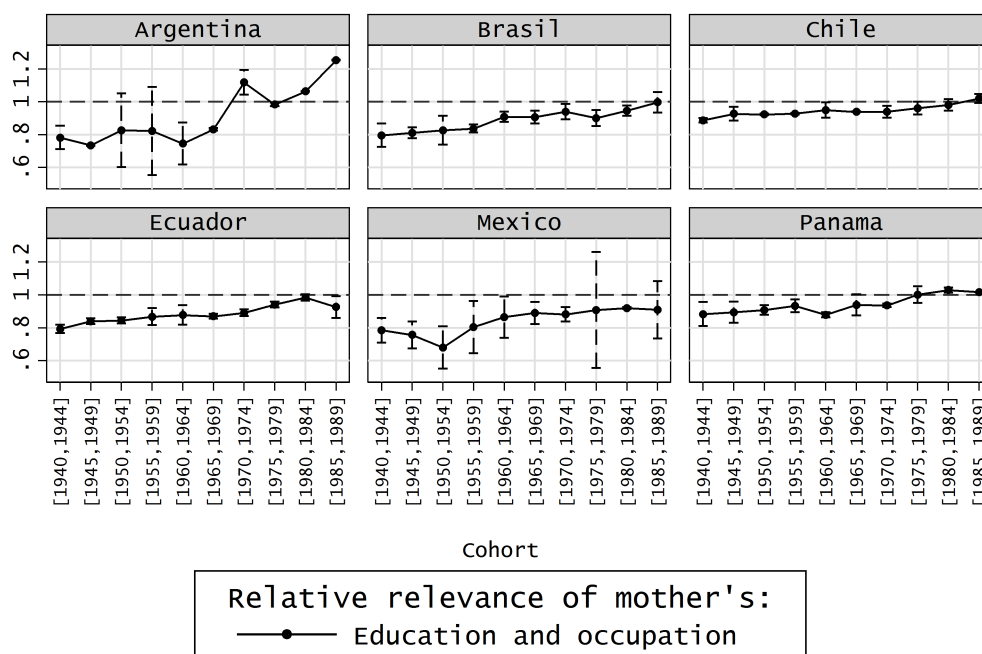


Source: own estimates based on household surveys.
Standard errors at 95% confidence intervals.

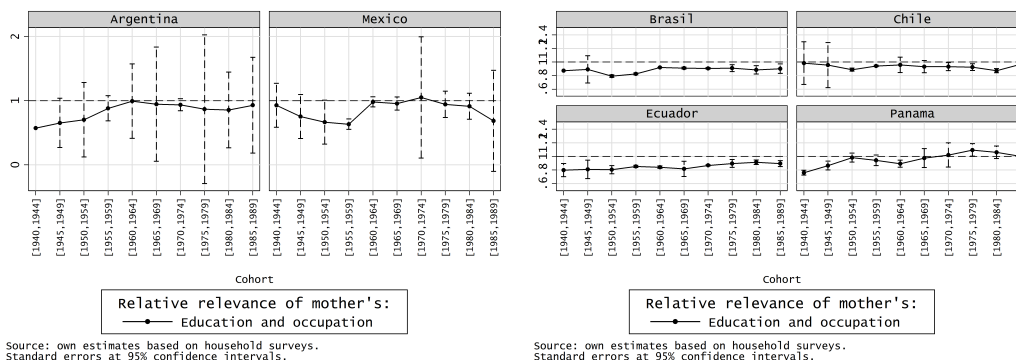


Source: own estimates based on household surveys.
Standard errors at 95% confidence intervals.

Figure 5: Relevance of mothers' characteristics by country. Children's education (upper panel) and income rank (lower panel)



Source: own estimates based on household surveys.
Standard errors at 95% confidence intervals.



Source: own estimates based on household surveys.
Standard errors at 95% confidence intervals.

Source: own estimates based on household surveys.
Standard errors at 95% confidence intervals.

Finally, Table 2 summarizes the main findings regarding mothers' characteristics' relevance in explaining family background for the Latin American unweighted average and considering both children's education and income rank. The first and fourth columns show the relative importance of mothers' education to fathers' education. As noted above, the relative ρ for mothers' education has been increasing over time and surpasses fathers' one since the 1980's. In other words, mothers' education has become more important than fathers' occupation in explaining children's underlying status. Furthermore, in the second and fifth columns, we present the sum of mother's education

and occupation ρ 's relative to father's education and occupation ρ 's. These columns show that mothers' characteristics are still increasing their importance for family background but it is smaller in levels. For example, for the last cohort, mothers' relative ρ 's only became similarly relevant than fathers' ones. As noted above, this result suggests that the inclusion of parents' occupation as proxy for children's family background diminishes the importance of mothers' characteristics. This last conclusion can be seen more clearly in the third and sixth columns of Table 2. These columns depict the relative importance of mother's occupation ρ 's relative to father ones. They show that mothers' occupation characteristics increased their relative importance over time, compared to fathers' ones, in explaining children's underlying status. However, the former is still about 40% less important than the latter. Tables A.1, A.2, A.3, A.4, and A.6 show similar information as Table 2 by country. Results from these tables suggest that, except for Chile, the smaller relevance of mothers' occupation over fathers' occupation represents a common pattern across Latin American countries.

Table 2: Characteristic's weights (relative to father education). Latin America unweighted mean.

	Children's education			Children's income rank		
	Mother education	Mother education + occupation	Mother/Father occupation ratio	Mother education	Mother education + occupation	Mother/Father occupation ratio
Mean	0.96	0.90	0.44	0.93	0.88	0.50
Birth cohorts						
[1940 – 1949]	0.88	0.82	0.37	0.88	0.82	0.39
[1950 – 1959]	0.92	0.85	0.34	0.88	0.83	0.41
[1960 – 1969]	0.93	0.88	0.48	0.99	0.93	0.48
[1970 – 1979]	1.00	0.95	0.52	0.98	0.95	0.67
[1980 – 1989]	1.06	1.00	0.56	0.94	0.91	0.64

5 Conclusions

In this paper, we applied the LW approach in Latin American countries to integrate parents' occupational proxy measures of family background to the traditionally used parental education variables. Because the method optimally yields the weights (i.e. the importance) of each proxy measure, we also evaluate the changing relative relevance of mother's characteristics over father's ones to explain children's family background. Additionally, we go beyond the typical intergenerational mobility in education and explore other dimensions of children's well-being as a function of parental education such as their cohort-income rank. Our results suggest that intergenerational persistence estimates

are between 26% and 40% downward biased when considering only parents' education as proxy for family background compared to the inclusion of parents' occupation. Moreover, conclusions about the evolution of intergenerational mobility can not necessarily be similar, especially when considering children's income rank. Our findings also suggest that mother's attributes have been increasing their relative importance across children's birth cohorts. In particular, they became at least equally relevant as father's characteristics since the 1980s, especially for daughters.

To the best of our knowledge, this paper represents the first study applying the LW approach to combine different proxy measures of parental background to evaluate the patterns of intergenerational mobility in developing countries. Additionally, this paper provides the first contribution in the social mobility literature evaluating the changing relevance of each family member's characteristics on children's opportunities.

References

- ADERMON, A., M. LINDAHL AND M. PALME, "Dynastic human capital, inequality and intergenerational mobility," (2019).
- BEHRMAN, J. R., A. GAVIRIA, M. SZÉKELY, N. BIRDSALL AND S. GALIANI, "Intergenerational mobility in Latin America [with comments]," *Economia* 2 (2001), 1–44.
- BRUNORI, P., F. H. FERREIRA AND V. PERAGINE, "Inequality of opportunity, income inequality, and economic mobility: Some international comparisons," in *Getting development right* (Springer, 2013), 85–115.
- CHETTY, R., N. HENDREN, P. KLINE AND E. SAEZ, "Where is the land of opportunity? The geography of intergenerational mobility in the United States," *The Quarterly Journal of Economics* 129 (2014), 1553–1623.
- CLARK, G., *The son also rises: Surnames and the history of social mobility* (Princeton University Press, 2015).

- DAUDE, C. AND V. ROBANO, "On intergenerational (im) mobility in Latin America," *Latin American Economic Review* 24 (2015), 1–29.
- EMRAN, M. S., W. GREENE AND F. SHILPI, *When measure matters: coresidency, truncation bias, and intergenerational mobility in developing countries* (The World Bank, 2016).
- EMRAN, M. S. AND F. J. SHILPI, "Economic approach to intergenerational mobility: Measures, methods, and challenges in developing countries," Technical Report, WIDER Working Paper, 2019.
- HERTZ, T., T. JAYASUNDERA, P. PIRAINO, S. SELCUK, N. SMITH AND A. VERASHCHAGINA, "The inheritance of educational inequality: International comparisons and fifty-year trends," *The BE Journal of Economic Analysis & Policy* 7 (2008).
- KROEGER, S. AND O. THOMPSON, "Educational mobility across three generations of American women," *Economics of Education Review* 53 (2016), 72–86.
- LUBOTSKY, D. AND M. WITTENBERG, "Interpretation of regressions with multiple proxies," *The Review of Economics and Statistics* 88 (2006), 549–562.
- NEIDHÖFER, G., J. SERRANO AND L. GASPARINI, "Educational inequality and intergenerational mobility in Latin America: A new database," *Journal of Development Economics* 134 (2018), 329–349.
- SCHNEEBAUM, A., B. RUMPLMAIER AND W. ALTZINGER, "Gender and migration background in intergenerational educational mobility," *Education Economics* 24 (2016), 239–260.
- TORCHE, F., "Intergenerational mobility and inequality: The Latin American case," *Annual Review of Sociology* 40 (2014), 619–642.
- VOSTERS, K., "Is the simple law of mobility really a law? Testing Clark's hypothesis," *The Economic Journal* 128 (2018), F404–F421.

Appendix Section

Figure A.1: Intergenerational persistence. Daughters (left panel) and sons (right panel). Children's education.

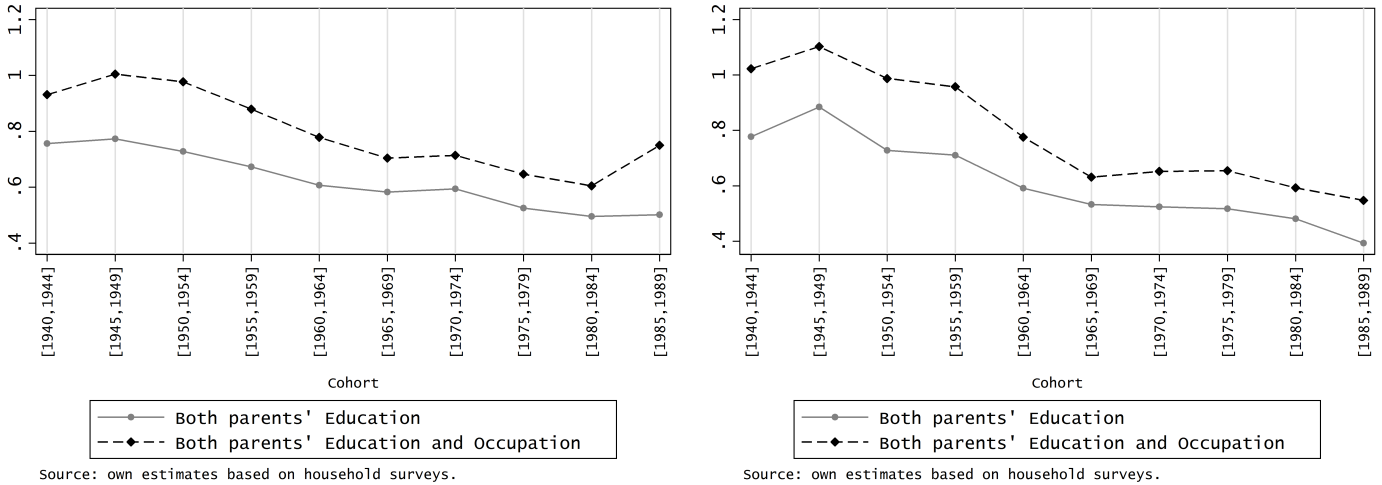


Figure A.2: Intergenerational persistence. Daughters (left panel) and sons (right panel). Children's cohort income rank.

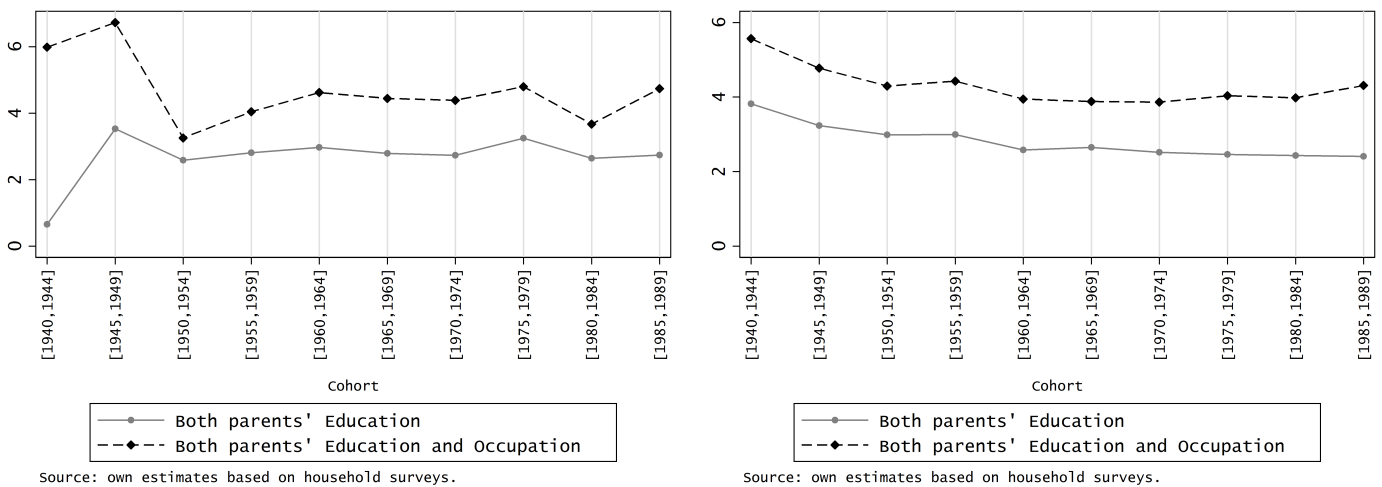
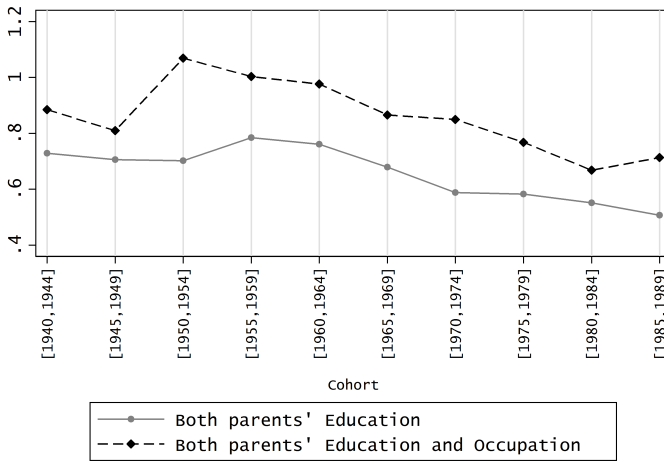
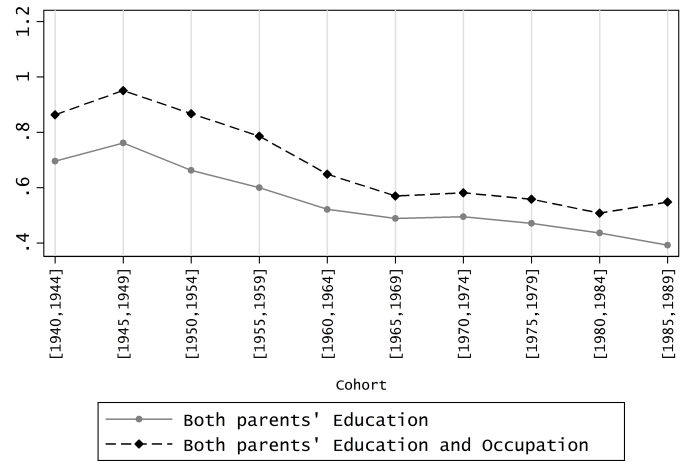


Figure A.3: Intergenerational persistence. Rural (left panel) and urban (right panel) zones. Children's education.

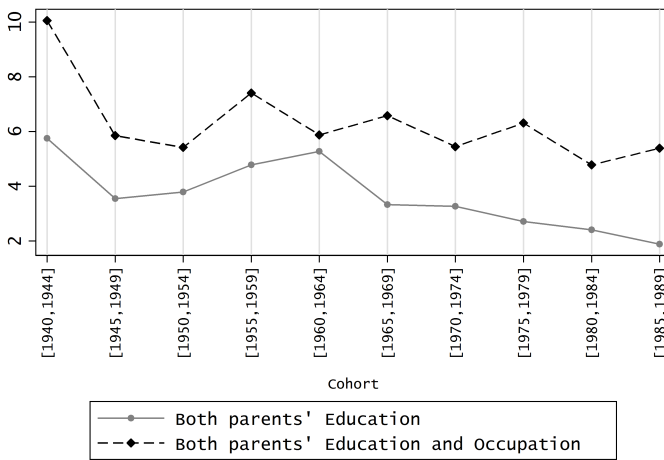


Source: own estimates based on household surveys.

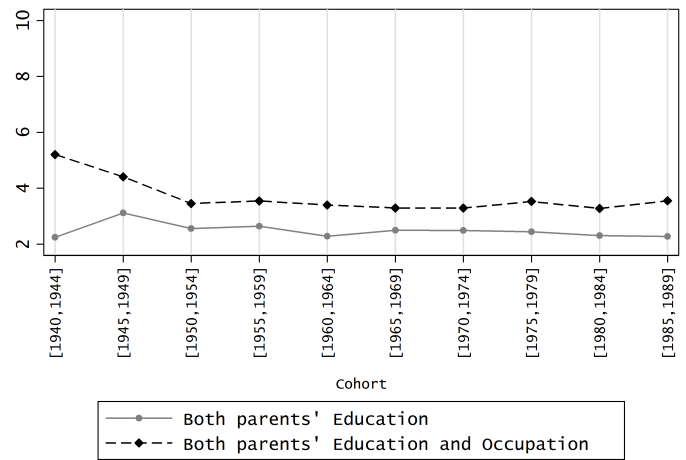


Source: own estimates based on household surveys.

Figure A.4: Intergenerational persistence. Rural (left panel) and urban (right panel) zones. Children's cohort income rank.



Source: own estimates based on household surveys.



Source: own estimates based on household surveys.

Figure A.5: Relevance of mothers' characteristics. Daughters (left panel) and sons (right panel). Children's education.

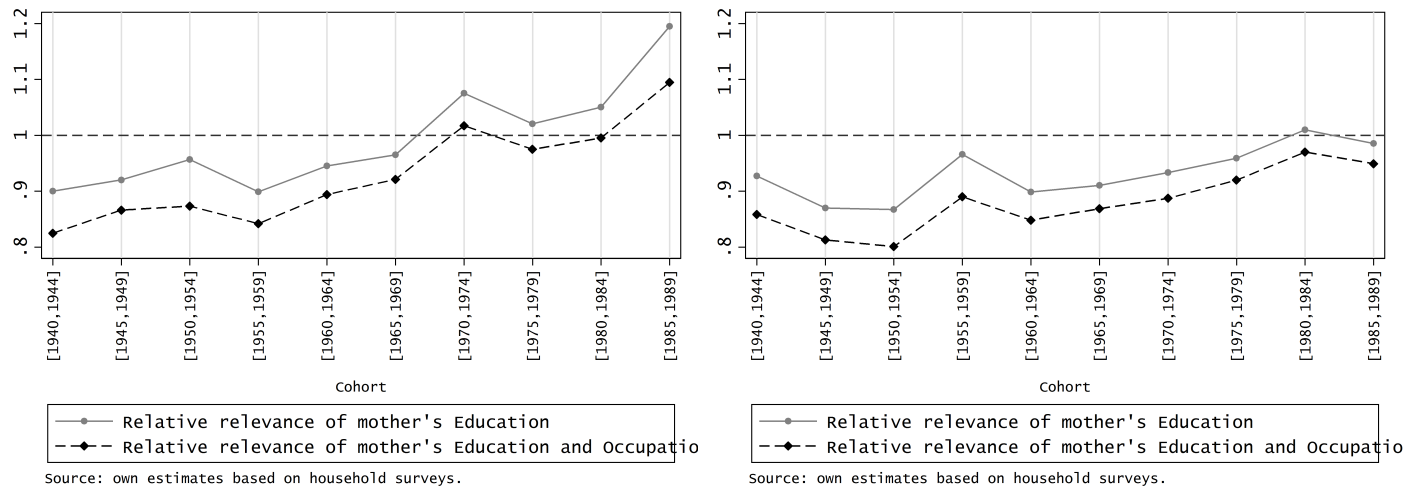


Figure A.6: Relevance of mothers' characteristics. Daughters (left panel) and sons (right panel). Children's cohort income rank.

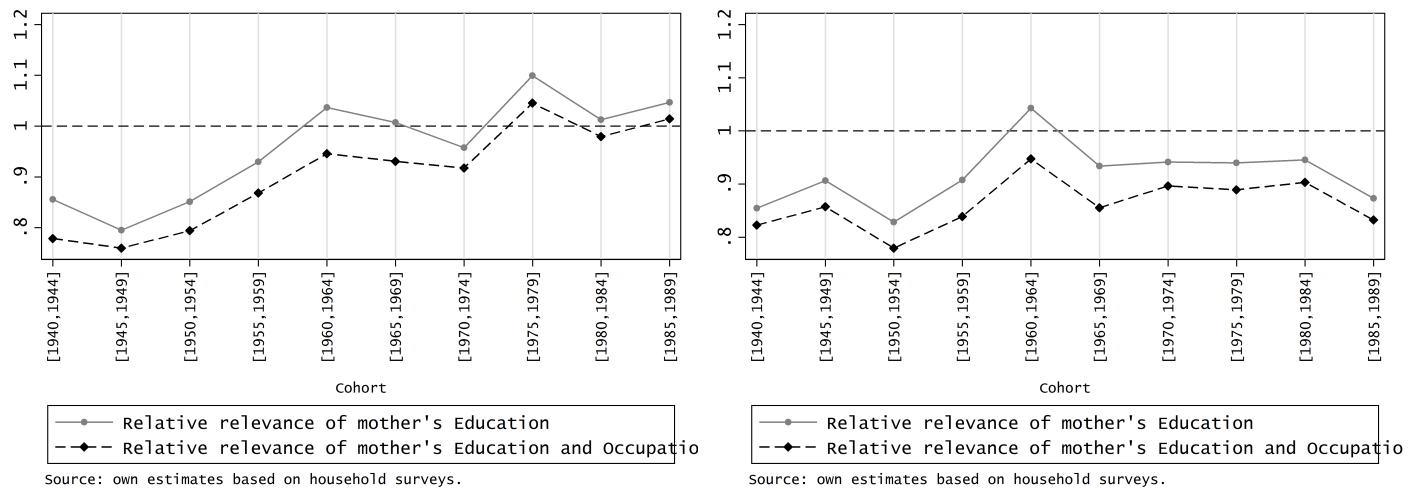


Figure A.7: Relevance of mothers' characteristics. Rural (left panel) and urban (right panel) zones. Children's education.

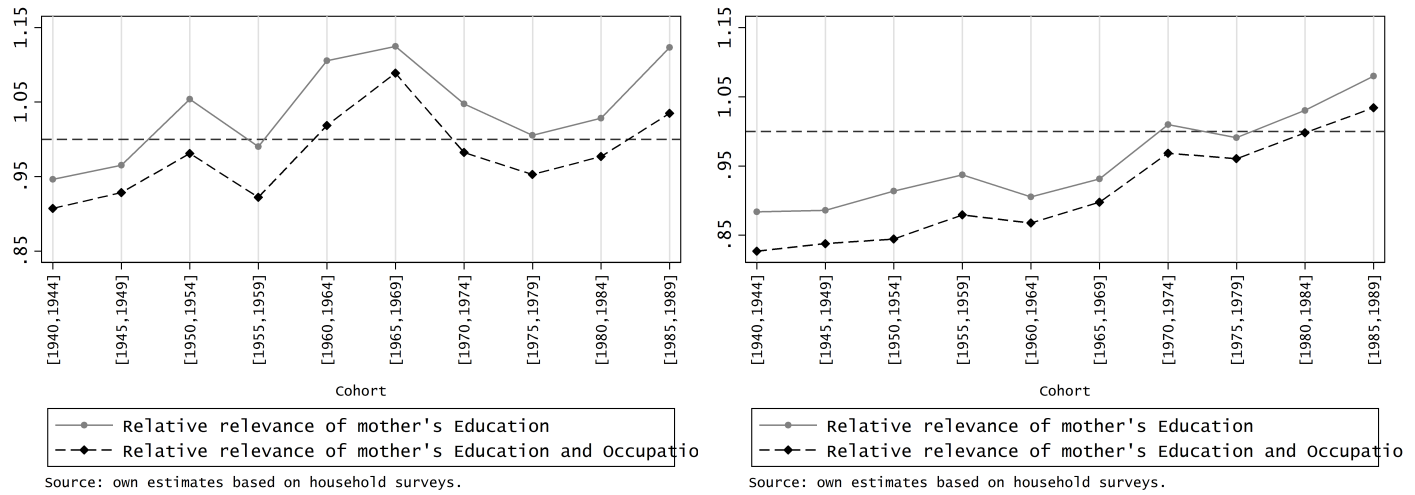


Figure A.8: Relevance of mothers' characteristics. Rural (left panel) and urban (right panel) zones. Children's cohort income rank.

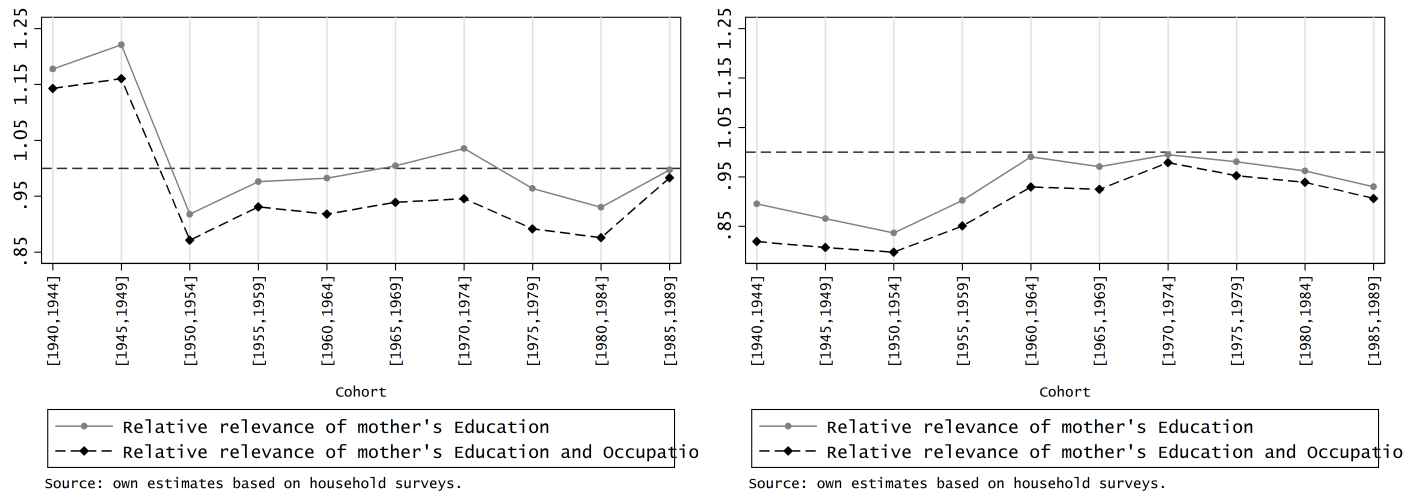


Table A.1: Characteristics' weights (relative to father education). Argentina.

	Children's education			Children's income rank		
	Mother education	Mother education + occupation	Mother/Father occupation ratio	Mother education	(Mother education + occupation)	(Mother/Father occupation ratio)
Mean	1.03	0.92	0.24	0.95	0.83	0.27
Birth cohorts						
[1940 – 1949]	0.87	0.76	0.14	0.75	0.61	0.18
[1950 – 1959]	0.96	0.82	0.09	0.90	0.79	0.21
[1960 – 1969]	0.85	0.79	0.25	1.14	0.97	0.27
[1970 – 1979]	1.14	1.05	0.32	0.98	0.90	0.35
[1980 – 1989]	1.31	1.16	0.40	0.99	0.89	0.42

Table A.2: Characteristics' weights (relative to father education). Brazil.

	Children's education			Children's income rank		
	Mother education	Mother education + occupation	Mother/Father occupation ratio	Mother education	(Mother education + occupation)	(Mother/Father occupation ratio)
Mean	0.95	0.89	0.57	0.92	0.88	0.63
Birth cohorts						
[1940 – 1949]	0.87	0.80	0.51	0.90	0.88	0.74
[1950 – 1959]	0.91	0.83	0.51	0.85	0.81	0.56
[1960 – 1969]	0.97	0.91	0.59	0.99	0.92	0.55
[1970 – 1979]	0.98	0.92	0.62	0.95	0.91	0.66
[1980 – 1989]	1.01	0.97	0.71	0.92	0.89	0.73

Table A.3: Characteristics' weights (relative to father education). Chile.

	Children's education			Children's income rank		
	Mother education	Mother education + occupation	Mother/Father occupation ratio	Mother education	(Mother education + occupation)	(Mother/Father occupation ratio)
Mean	0.94	0.95	1.41	0.92	0.94	1.34
Birth cohorts						
[1940 – 1949]	0.91	0.91	1.32	0.97	0.99	1.12
[1950 – 1959]	0.92	0.93	2.20	0.90	0.91	1.53
[1960 – 1969]	0.94	0.94	1.41	0.94	0.95	1.07
[1970 – 1979]	0.95	0.95	2.08	0.91	0.93	1.62
[1980 – 1989]	1.00	1.00	0.75	0.90	0.92	1.46

Table A.4: Characteristics' weights (relative to father education). Ecuador.

	Children's education			Children's income rank		
	Mother education	Mother education + occupation	Mother/Father occupation ratio	Mother education	(Mother education + occupation)	(Mother/Father occupation ratio)
Mean	0.95	0.88	0.41	0.93	0.85	0.42
Birth cohorts						
[1940 – 1949]	0.88	0.82	0.33	0.90	0.80	0.32
[1950 – 1959]	0.93	0.86	0.30	0.93	0.83	0.31
[1960 – 1969]	0.94	0.87	0.36	0.91	0.83	0.41
[1970 – 1979]	0.99	0.92	0.47	0.94	0.88	0.53
[1980 – 1989]	1.02	0.96	0.54	0.96	0.90	0.56

Table A.5: Characteristics' weights (relative to father education). Mexico.

	Children's education			Children's income rank		
	Mother education	Mother education + occupation	Mother/Father occupation ratio	Mother education	(Mother education + occupation)	(Mother/Father occupation ratio)
Mean	0.90	0.84	0.35	0.88	0.85	0.54
Birth cohorts						
[1940 – 1949]	0.85	0.77	0.33	0.84	0.84	0.80
[1950 – 1959]	0.83	0.74	0.25	0.71	0.65	0.31
[1960 – 1969]	0.93	0.88	0.49	1.03	0.97	0.45
[1970 – 1979]	0.95	0.90	0.34	1.02	1.00	0.77
[1980 – 1989]	0.96	0.92	0.38	0.82	0.80	0.58

Table A.6: Characteristics' weights (relative to father education). Panama.

	Children's education			Children's income rank		
	Mother education	Mother education + occupation	Mother/Father occupation ratio	Mother education	(Mother education + occupation)	(Mother/Father occupation ratio)
Mean	0.97	0.94	0.67	1.00	0.96	0.65
Birth cohorts						
[1940 – 1949]	0.92	0.89	0.52	0.91	0.81	0.27
[1950 – 1959]	0.96	0.92	0.55	1.01	0.96	0.59
[1960 – 1969]	0.94	0.91	0.62	0.97	0.93	0.72
[1970 – 1979]	0.98	0.97	0.88	1.07	1.06	0.95
[1980 – 1989]	1.05	1.02	0.80	1.05	1.03	0.88